

**WSR 19-01-012**  
**PERMANENT RULES**  
**DEPARTMENT OF**  
**SOCIAL AND HEALTH SERVICES**

(Division of Vocational Rehabilitation)

[Filed December 6, 2018, 11:54 a.m., effective January 6, 2019]

Effective Date of Rule: Thirty-one days after filing.

Purpose: The department is amending WAC 388-891A-1174 When does DVR purchase and loan a vehicle to you? The amendment is a typographical correction in subsection (2)(c) of WAC 388-891A-1174. This change is to ensure that a reference contained in the rule is accurate. Currently, the reference is to WAC 388-891A-1178; the correct reference is to WAC 388-891A-1175.

Citation of Rules Affected by this Order: Amending WAC 388-891A-1174.

Statutory Authority for Adoption: RCW 74.29.020(8).

Other Authority: 34 Code of Federal Regulations, Parts 361, 363, 397.

Adopted under notice filed as WSR 18-18-079 on September 4, 2018.

Number of Sections Adopted in Order to Comply with Federal Statute: New 0, Amended 0, Repealed 0; Federal Rules or Standards: New 0, Amended 0, Repealed 0; or Recently Enacted State Statutes: New 0, Amended 0, Repealed 0.

Number of Sections Adopted at the Request of a Non-governmental Entity: New 0, Amended 0, Repealed 0.

Number of Sections Adopted on the Agency's own Initiative: New 0, Amended 1, Repealed 0.

Number of Sections Adopted in Order to Clarify, Streamline, or Reform Agency Procedures: New 0, Amended 0, Repealed 0.

Number of Sections Adopted using Negotiated Rule Making: New 0, Amended 0, Repealed 0; Pilot Rule Making: New 0, Amended 0, Repealed 0; or Other Alternative Rule Making: New 0, Amended 1, Repealed 0.

Date Adopted: December 6, 2018.

Katherine I. Vasquez  
 Rules Coordinator

AMENDATORY SECTION (Amending WSR 18-12-035, filed 5/29/18, effective 6/30/18)

**WAC 388-891A-1174 When does DVR purchase and loan a vehicle to you?** (1) DVR only purchases and loans a vehicle to you under exceptional circumstances and when providing a vehicle would be the least cost service to meet your transportation needs. In such exceptional circumstances, no other transportation options are available and it is not feasible for you to relocate or use other transportation options.

(2) You or the driver of your vehicle must participate in an assessment to determine that you, or if you are riding as the passenger in the vehicle, that the driver, can safely operate the vehicle. As part of that assessment, you, or if you are the passenger, the driver, must provide:

(a) A copy of a current, valid driver's license;

(b) A current copy of a driving record disclosing any moving violations and indicating no criminal convictions related to driving a vehicle;

(c) Documentation of your insurability and the anticipated expense of insuring the vehicle to meet DVR's minimum requirements, as outlined in WAC (~~388-891A-1178~~) 388-891A-1175; and

(d) Documentation of your ability to maintain insurance coverage.

(3) If the assessment described in subsection (2) of this section reveals any fact that raises a question regarding driving safety, the DVR counselor must require a driving evaluation conducted by a state-certified driver training instructor, or another relevant evaluation, as appropriate.

(4) When the vehicle has been or will be modified for your use, the driving evaluation described in subsection (3) of this section must be conducted by a certified driver rehabilitation specialist.

(5) The DVR director must approve the purchase of the vehicle and the loan to you.

**WSR 19-01-024**  
**PERMANENT RULES**  
**HEALTH CARE AUTHORITY**

[Filed December 10, 2018, 3:48 p.m., effective February 1, 2019]

Effective Date of Rule: February 1, 2019.

Purpose: The agency revised WAC 182-553-500 Home infusion therapy and parenteral nutrition program—Coverage, services, limitations, prior authorization, and reimbursement, to allow for coverage of continuous glucose monitoring for adults and pregnant women who meet certain criteria. The agency is also clarifying language on home infusion coverage for clients who reside in a state-owned facility, a nursing facility, or who elect to receive the agency's hospice benefit.

Citation of Rules Affected by this Order: Amending WAC 182-553-500.

Statutory Authority for Adoption: RCW 41.05.021, 41.05.160.

Adopted under notice filed as WSR 18-21-194 on October 24, 2018.

Number of Sections Adopted in Order to Comply with Federal Statute: New 0, Amended 0, Repealed 0; Federal Rules or Standards: New 0, Amended 0, Repealed 0; or Recently Enacted State Statutes: New 0, Amended 0, Repealed 0.

Number of Sections Adopted at the Request of a Non-governmental Entity: New 0, Amended 0, Repealed 0.

Number of Sections Adopted on the Agency's own Initiative: New 0, Amended 0, Repealed 0.

Number of Sections Adopted in Order to Clarify, Streamline, or Reform Agency Procedures: New 0, Amended 1, Repealed 0.

Number of Sections Adopted using Negotiated Rule Making: New 0, Amended 0, Repealed 0; Pilot Rule Making: New 0, Amended 0, Repealed 0; or Other Alternative Rule Making: New 0, Amended 1, Repealed 0.

Date Adopted: December 10, 2018.

Wendy Barcus  
Rules Coordinator

AMENDATORY SECTION (Amending WSR 15-14-063, filed 6/26/15, effective 7/27/15)

**WAC 182-553-500 Home infusion therapy and parenteral nutrition program—Coverage, services, limitations, prior authorization, and reimbursement.** (1) The home infusion therapy and parenteral nutrition program covers the following for eligible clients, subject to the limitations and restrictions listed:

(a) ~~A one-month supply of home infusion ((supplies, limited to one month's supply)),~~ per client, per calendar month.

(b) ~~A one-month supply of parenteral nutrition solution((s, limited to one month's supply)),~~ per client, per calendar month.

(c) One type of infusion pump, one type of parenteral pump, and one type of insulin pump per client, per calendar month and as follows:

(i) All rent-to-purchase infusion, parenteral, and insulin pumps must be new equipment at the beginning of the rental period.

(ii) The agency covers the rental payment for each type of infusion, parenteral, or insulin pump for up to twelve months. The agency considers a pump purchased after twelve months of rental payments.

(iii) The agency covers only one purchased infusion pump or parenteral pump per client in a five-year period.

(iv) The agency covers only one purchased insulin pump per client in a four-year period.

(2) Covered supplies and equipment that are within the described limitations listed in subsection (1) of this section do not require prior authorization for reimbursement.

(3) The agency pays for FDA-approved continuous glucose monitoring systems and related monitoring equipment and supplies ~~((with))~~ using the expedited prior authorization ~~((for a client who:~~

~~(a) Either has had one or more severe episodes of hypoglycemia or is enrolled in a trial approved by an institutional review board;~~

~~(b) Is age eighteen and younger;~~

~~(c) Has a diagnosis of insulin dependent diabetes mellitus; and~~

~~(d) Is followed by an endocrinologist))~~ process when the client meets the following criteria:

(a) Is age eighteen and younger;

(b) Is age nineteen and older with Type 1 diabetes;

(c) Is age nineteen and older with Type 2 diabetes who is:

(i) Unable to achieve target HbA1C despite adherence to an appropriate glycemic management plan after six months of intensive insulin therapy and testing blood glucose four or more times per day;

(ii) Suffering from one or more severe episodes of hypoglycemia despite adherence to an appropriate glycemic management plan; or

(iii) Unable to recognize, or communicate about, symptoms of hypoglycemia.

(d) Is pregnant with:

(i) Type 1 diabetes; or

(ii) Type 2 diabetes and on insulin prior to pregnancy;

(iii) Type 2 diabetes and whose blood glucose does not remain well controlled on diet or oral medication during pregnancy and requires insulin; or

(iv) Gestational diabetes with blood glucose that is not well controlled (HbA1C above target or experiencing episodes of hyperglycemia or hypoglycemia) and requires insulin.

(4) Requests for supplies or equipment that exceed the limitations or restrictions listed in this section require prior authorization and are evaluated on ~~((an individual basis according to the provisions of))~~ a case-by-case basis under WAC 182-501-0165 and 182-501-0169.

(5) The agency may adopt policies, procedure codes, and rates inconsistent with those set by medicare.

(6) Agency reimbursement for equipment rentals and purchases includes the following:

(a) Instructions to a client, a caregiver, or both, on the safe and proper use of equipment provided;

(b) Full service warranty;

(c) Delivery and pickup; and

(d) Setup, fitting, and adjustments.

(7) ~~((The agency does not pay separately for home infusion supplies and equipment or parenteral nutrition solutions, except:~~

~~(a) When a client resides in a state-owned facility (e.g., state school, a developmental disabilities facility, a mental health facility, Western State Hospital, or Eastern State Hospital);~~

~~(b) When a client has elected and is eligible to receive the agency's hospice benefit, unless:~~

~~(i) The client has a preexisting diagnosis that requires parenteral support; and~~

~~(ii) The preexisting diagnosis is not related to the diagnosis that qualifies the client for hospice.~~

~~(8) The agency pays separately for a client's infusion pump, parenteral nutrition pump, insulin pump, solutions, and insulin infusion supplies when the client:~~

~~(a) Resides in a nursing facility; and~~

~~(b) Meets the criteria in WAC 182-553-300.))~~ For clients

residing in a state-owned facility (i.e., state school, developmental disabilities facility, mental health facility, Western State Hospital, and Eastern State Hospital) payment for home infusion supplies, equipment, and parenteral nutrition solutions are the responsibility of the state-owned facility to provide.

(8) For clients who are eligible for and have elected to receive the agency's hospice benefit, the agency pays for home infusion or parenteral nutrition supplies and equipment separately from the hospice per diem rate when:

(a) The client has a preexisting diagnosis that requires parenteral support; and

(b) The preexisting diagnosis is not related to the diagnosis that qualifies the client for hospice.

(9) For clients residing in a nursing facility, infusion pumps, parenteral nutrition pumps, insulin pumps, solutions,

and insulin infusion supplies are not included in the nursing facility per diem rate. The agency pays for these items separately.

Date Adopted: December 11, 2018.

Katherine I. Vasquez  
Rules Coordinator

**WSR 19-01-031**  
**PERMANENT RULES**  
**DEPARTMENT OF**  
**SOCIAL AND HEALTH SERVICES**  
(Economic Services Administration)

[Filed December 12, 2018, 9:37 a.m., effective January 12, 2019]

Effective Date of Rule: Thirty-one days after filing.

Purpose: These amendments do the following: Increase the maximum basic food allotments; change the basic food standard deduction for one to three person households to \$164, four person households to \$174, five person households to \$204, and six or more person households to \$234; increase the maximum shelter deduction to \$552; change the standard utility allowance to \$430, limited utility allowance to \$336, and telephone utility allowance to \$58; and increase the maximum gross monthly income and maximum net monthly income limits for households that are not categorically eligible for basic food.

Citation of Rules Affected by this Order: Amending WAC 388-450-0185, 388-450-0190, 388-450-0195, and 388-478-0060.

Statutory Authority for Adoption: RCW 74.04.005, 74.04.050, 74.04.055, 74.04.057, 74.04.500, 74.04.510, 74.08.090, 74.08A.120.

Other Authority: 7 C.F.R. 273.1, 273.9 (d)(iii)(B); Supplemental Nutrition Assistance Program (SNAP) Fiscal Year (FY) 2019 Cost-of-Living-Adjustments memo dated July 27, 2018; and SNAP utility allowance memo for FFY 2019 dated August 23, 2018.

Adopted under notice filed as WSR 18-19-070 on September 17, 2018.

Changes Other than Editing from Proposed to Adopted Version: WAC 388-450-0195 (2)(a) was updated to change the amount from four hundred twenty-one dollars to four hundred thirty dollars.

Number of Sections Adopted in Order to Comply with Federal Statute: New 0, Amended 0, Repealed 0; Federal Rules or Standards: New 0, Amended 4, Repealed 0; or Recently Enacted State Statutes: New 0, Amended 0, Repealed 0.

Number of Sections Adopted at the Request of a Non-governmental Entity: New 0, Amended 0, Repealed 0.

Number of Sections Adopted on the Agency's own Initiative: New 0, Amended 0, Repealed 0.

Number of Sections Adopted in Order to Clarify, Streamline, or Reform Agency Procedures: New 0, Amended 0, Repealed 0.

Number of Sections Adopted using Negotiated Rule Making: New 0, Amended 0, Repealed 0; Pilot Rule Making: New 0, Amended 0, Repealed 0; or Other Alternative Rule Making: New 0, Amended 4, Repealed 0.

AMENDATORY SECTION (Amending WSR 18-02-043, filed 12/26/17, effective 1/26/18)

**WAC 388-450-0185 What income deductions does the department allow when determining if I am eligible for food benefits and the amount of my monthly benefits?**

(1) We determine if your assistance unit (AU) is eligible for basic food and calculate your monthly benefits according to requirements of the Food and Nutrition Act of 2008 and federal regulations related to the supplemental nutrition assistance program (SNAP).

(2) Under these federal laws, we subtract the following amounts from your AU's total monthly income to determine your countable monthly income under WAC 388-450-0162:

(a) A standard deduction based on the number of eligible people in your AU under WAC 388-408-0035:

Eligible AU members	Standard deduction
((+)) <u>3 or less</u>	(( <del>\$160</del> ) <u>\$164</u> )
(( <del>2</del> ))	(( <del>\$160</del> ))
(( <del>3</del> ))	(( <del>\$160</del> ))
4	(( <del>\$170</del> ) <u>\$174</u> )
5	(( <del>\$199</del> ) <u>\$204</u> )
6 or more	(( <del>\$228</del> ) <u>\$234</u> )

(b) Twenty percent of your AU's gross earned income (earned income deduction);

(c) Your AU's expected monthly dependent care expense needed for an AU member to:

(i) Keep work, look for work, or accept work;

(ii) Attend training or education to prepare for employment; or

(iii) Meet employment and training requirements under chapter 388-444 WAC;

(d) Medical expenses over thirty-five dollars a month owed or anticipated by an elderly or disabled person in your AU as allowed under WAC 388-450-0200; and

(e) A portion of your shelter costs as described in WAC 388-450-0190.

AMENDATORY SECTION (Amending WSR 18-02-043, filed 12/26/17, effective 1/26/18)

**WAC 388-450-0190 How does the department figure my shelter cost income deduction for basic food?** The department calculates your shelter cost income deduction for basic food as follows:

(1) First, we add up the amounts your assistance unit (AU) must pay each month for shelter. We do not count any overdue amounts, late fees, penalties, or mortgage payments you make ahead of time as allowable shelter costs. We count the following expenses as an allowable shelter cost in the month the expense is due:

(a) Monthly rent, lease, and mortgage payments;

- (b) Property taxes;
- (c) Homeowner's association or condo fees;
- (d) Homeowner's insurance for the building only;
- (e) Utility allowance your AU is eligible for under WAC 388-450-0195;
- (f) Out-of-pocket repairs for the home if it was substantially damaged or destroyed due to a natural disaster such as a fire or flood;
- (g) Expense of a temporarily unoccupied home because of employment, training away from the home, illness, or abandonment caused by a natural disaster or casualty loss if your:
  - (i) AU intends to return to the home;
  - (ii) AU has current occupants who are not claiming the shelter costs for basic food purposes; and
  - (iii) AU's home is not being leased or rented during your AU's absence.

(2) Second, we subtract all deductions your AU is eligible for under WAC 388-450-0185 (2)(a) through (2)(d) from your AU's gross income. The result is your AU's countable income.

(3) Finally, we subtract one-half of your AU's countable income from your AU's total shelter costs. The result is your excess shelter costs. Your AU's shelter cost deduction is the excess shelter costs:

- (a) Up to a maximum of five hundred ~~((thirty-five))~~ fifty-two dollars if no one in your AU is elderly or disabled; or
- (b) The entire amount if an eligible person in your AU is elderly or disabled, even if the amount is over five hundred ~~((thirty-five))~~ fifty-two dollars.

AMENDATORY SECTION (Amending WSR 18-02-043, filed 12/26/17, effective 1/26/18)

**WAC 388-450-0195 Does the department use my utility costs when calculating my basic food or WASHCAP benefits?** (1) The department uses utility allowances instead of the actual utility costs your assistance unit (AU) pays when we determine your:

- (a) Monthly benefits under WAC 388-492-0070 if you receive Washington state combined application project (WASHCAP); or
- (b) Shelter cost income deduction under WAC 388-450-0190 for basic food.

(2) We use the following amounts if you have utility costs separate from your rent or mortgage payment:

(a) If your AU has heating or cooling costs or receives more than twenty dollars in low income home energy assistance program (LIHEAP) benefits each year, you get a standard utility allowance (SUA) of four hundred ~~((twenty-one))~~ thirty dollars.

(b) If your household does not receive a LIHEAP payment and the reason is solely because of your immigration status, you get a SUA of four hundred ~~((twenty-one))~~ thirty dollars.

(c) If your AU does not qualify for the SUA and you have any two utility costs listed in subsection (3) of this section, you get a limited utility allowance (LUA) of three hundred ~~((twenty-eight))~~ thirty-six dollars.

(d) If your AU has only telephone costs and no other utility costs, you get a telephone utility allowance (TUA) of ~~((fifty-seven))~~ fifty-eight dollars.

(3) "Utility costs" include the following:

- (a) Heating or cooling fuel;
- (b) Electricity or gas;
- (c) Water;
- (d) Sewer;
- (e) Well installation/maintenance;
- (f) Septic tank installation/maintenance;
- (g) Garbage/trash collection; and
- (h) Telephone service.

(4) If you do not have a utility cost separate from your rent or mortgage payment and do not receive low income energy assistance program (LIHEAP), you do not receive a utility allowance.

AMENDATORY SECTION (Amending WSR 18-02-043, filed 12/26/17, effective 1/26/18)

**WAC 388-478-0060 What are the income limits and maximum benefit amounts for basic food?** (1) If your assistance unit (AU) meets all other eligibility requirements for basic food, your AU must have income at or below the limits in columns B and C of this subsection to get basic food, unless you meet one of the exceptions listed below in subsection (2) of this section. The maximum monthly food assistance benefit your AU could receive is listed in column D of this subsection.

EFFECTIVE ~~((10/1/2017))~~ 10/1/2018

Column A Number of Eligible AU Members	Column B Maximum Gross Monthly Income	Column C Maximum Net Monthly Income	Column D Maximum Allotment	Column E 165% of Poverty Level
1	<del>((1,307))</del> <u>\$1,316</u>	<del>((1,005))</del> <u>\$1,012</u>	\$192	<del>((1,659))</del> <u>\$1,670</u>
2	<del>((1,760))</del> <u>1,784</u>	<del>((1,354))</del> <u>1,352</u>	<del>((352))</del> <u>353</u>	<del>((2,233))</del> <u>2,264</u>
3	<del>((2,213))</del> <u>2,252</u>	<del>((1,702))</del> <u>1,732</u>	<del>((504))</del> <u>505</u>	<del>((2,808))</del> <u>2,858</u>
4	<del>((2,665))</del> <u>2,720</u>	<del>((2,050))</del> <u>2,092</u>	<del>((640))</del> <u>642</u>	<del>((3,383))</del> <u>3,452</u>

EFFECTIVE ((10/1/2017)) 10/1/2018

Column A Number of Eligible AU Members	Column B Maximum Gross Monthly Income	Column C Maximum Net Monthly Income	Column D Maximum Allotment	Column E 165% of Poverty Level
5	((3,118)) <u>3,188</u>	((2,399)) <u>2,452</u>	((760)) <u>762</u>	((3,958)) <u>4,046</u>
6	((3,571)) <u>3,656</u>	((2,747)) <u>2,812</u>	((913)) <u>914</u>	((4,532)) <u>4,640</u>
7	((4,024)) <u>4,124</u>	((3,095)) <u>3,172</u>	((1,009)) <u>1,011</u>	((5,107)) <u>5,234</u>
8	((4,477)) <u>4,592</u>	((3,444)) <u>3,532</u>	((1,153)) <u>1,155</u>	((5,682)) <u>5,828</u>
9	((4,930)) <u>5,060</u>	((3,793)) <u>3,892</u>	((1,297)) <u>1,299</u>	((6,257)) <u>6,422</u>
10	((5,383)) <u>5,528</u>	((4,142)) <u>4,252</u>	((1,441)) <u>1,443</u>	((6,832)) <u>7,016</u>
Each Additional Member	((+453)) <u>+468</u>	((+349)) <u>+360</u>	+144	((+575)) <u>+594</u>

(2) Exceptions:

(a) If your AU is categorically eligible as under WAC 388-414-0001, your AU does not have to meet the gross or net income standards in columns B and C of subsection (1) of this section. We budget your AU's income to decide the amount of basic food your AU will receive.

(b) If your AU includes a member who is sixty years of age or older or has a disability, your AU's income must be at or below the limit in column C of subsection (1) of this section.

(c) If you are sixty years of age or older and cannot buy and cook your own meals because of a permanent disability, we will use column E of subsection (1) of this section to decide if you can be a separate AU.

(d) If your AU has zero income, your benefits are the maximum allotment in column D of subsection (1) of this section, based on the number of eligible members in your AU.

analyzing safety net trends, fiscal data, and soliciting public input, developed a set of finalized recommendations to address the legislative requests. OSPI, in turn, was required to submit recommendations to the governor and the legislature's education and operating budget committees by November 1, 2018, and review and revise rules and procedures necessary to administer the special education funding and safety net award process by December 1, 2018. These rules adopt several of the recommendations of the safety net legislative workgroup.

Citation of Rules Affected by this Order: New WAC 392-140-60115, 392-140-60120 and 392-140-635; and amending WAC 392-140-600, 392-140-60105, 392-140-60110, 392-140-602, 392-140-605, 392-140-609, 392-140-616, 392-140-617, 392-140-626, 392-140-640, 392-140-643, 392-140-646, 392-140-650, 392-140-656, 392-140-660, 392-140-675, and 392-140-685.

Statutory Authority for Adoption: RCW 28A.155.090 and 28A.150.290.

Adopted under notice filed as WSR 18-21-185 on October 24, 2018.

Changes Other than Editing from Proposed to Adopted Version: The word "reimbursement" was changed back to "award" in WAC 392-140-600, 392-140-60105, 392-140-60110, 392-140-60115, 392-140-602, 392-140-605, 392-140-616, 392-140-617, 392-140-626, 392-140-630, 392-140-635, 392-140-643, 392-140-646, 392-140-660, 392-140-675, and 392-140-685.

WAC 392-140-60120, "as a percentage of the billing rates published by the health care authority" was added for clarification.

WAC 392-140-605 (2)(d), "as a percentage of the billing rates published by the health care authority" was added for clarification.

WAC 392-140-605 (2)(g), "with the exception of supplemental contracts which provide direct special education services to students per an individualized education program" was struck as it conflicts with RCW 28A.400.200(4).

**WSR 19-01-039**  
**PERMANENT RULES**  
**SUPERINTENDENT OF**  
**PUBLIC INSTRUCTION**

[Filed December 13, 2018, 9:26 a.m., effective January 13, 2019]

Effective Date of Rule: Thirty-one days after filing.

Purpose: Safety net funding is available to local education agencies that demonstrate a need for special education funding in excess of state and federal funding available to the district. The Washington state legislature directed the office of superintendent of public instruction (OSPI) in 2017 and 2018 to review the current safety net process and make recommendations regarding possible adjustments to improve the safety net process and evaluate the appropriate funding level to meet the purpose of safety net. A safety net legislative workgroup was formed in fall 2017. The workgroup, after

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Number of Sections Adopted at the Request of a Non-governmental Entity: New 0, Amended 0, Repealed 0.

Number of Sections Adopted on the Agency's own Initiative: New 1, Amended 3, Repealed 0.

Number of Sections Adopted in Order to Clarify, Streamline, or Reform Agency Procedures: New 1, Amended 14, Repealed 0.

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Date Adopted: December 12, 2018.

Chris P. S. Reykdal  
State Superintendent  
of Public Instruction

AMENDATORY SECTION (Amending WSR 15-24-137, filed 12/2/15, effective 1/2/16)

**WAC 392-140-600 Special education safety net—Applicable provisions.** The provisions of WAC 392-140-600 through 392-140-685 apply to the determination of safety net awards of state special education funds and Individuals with Disabilities Education Act (IDEA) federal funds for the 2012-13 school year and thereafter. Beginning with the ~~((2010-11))~~ 2018-19 school year award cycle, the office of the superintendent of public instruction shall make award determinations for safety net funding in August of each year, except that the superintendent of public instruction shall make award determinations for state safety net funding in July of each school year for the Washington state school for the blind and for the center for childhood deafness and hearing loss. Determinations on ~~((school district))~~ local education agency eligibility for state safety net awards shall be based on analysis of actual expenditure data from the current school year.

AMENDATORY SECTION (Amending WSR 13-05-054, filed 2/13/13, effective 3/16/13)

**WAC 392-140-60105 Definition—High need student.** For purposes of special education safety net awards, high need student means a student eligible for special education services whose ~~((properly formulated))~~ Individualized Education Program (IEP) costs as calculated on worksheet C exceed a multiple of the statewide average per pupil expenditures (APPE) as defined in section ~~((9101))~~ 7801 of the ~~((Elementary and Secondary Education))~~ Every Student Succeeds Act of ((1965)) 2015.

(1) For federal special education safety net funding, the multiple of the statewide average per pupil expenditures shall be at least three times the statewide average; and

(2) For state special education funding, the multiple of the statewide average per pupil expenditure shall be the multiple of the statewide average per pupil amount established by

the office of the superintendent of public instruction in consultation with the office of financial management and the fiscal committees of the legislature, and published in the annual *Safety Net Bulletin*.

AMENDATORY SECTION (Amending WSR 15-18-078, filed 8/28/15, effective 9/28/15)

**WAC 392-140-60110 Definition—Community impact.** For the purpose of state special education safety net funding, community impact refers to ~~((school district or charter school))~~ local education agency identified and quantifiable factor(s) beyond the control of the ~~((district or charter school))~~ local education agency which justify disproportional and extraordinary costs associated with the provision of special education services ~~((in the district or charter school))~~ for an increased number of students with disabilities located within the local education agency based upon current attributes of that local education agency that are not related to local education agency philosophy, staffing decisions, or service delivery choices (i.e., demographic, environmental, sociological, or other facts that can be described and calculated in an application consistent with WAC 392-140-617). Local education agencies below the thirteen and one-half percent funding index are not eligible for community impact safety net funds.

NEW SECTION

**WAC 392-140-60115 Definition—High need student served in residential schools, programs for juveniles under the department of corrections, and programs for juveniles operated under city and county jails.** For the purpose of state special education safety net award, high need student described in this section means a student eligible for special education services served in residential schools as defined in RCW 28A.190.020, programs for juveniles under the department of corrections, and programs for juveniles operated under city and county jails whose individualized education program costs (as calculated on worksheet C) exceed the threshold established by the office of the superintendent of public instruction in consultation with the office of financial management and the fiscal committees of the legislature, and published in the annual *Safety Net Bulletin*.

NEW SECTION

**WAC 392-140-60120 Definition—Capacity for funding.** For the purpose of state special education safety net funding, potential capacity for funding exists when an applicant's net special education expenditures exceed total resources available demonstrating a fiscal capacity in excess of all available revenue to the applicant for special education services, including state and federal revenue, program income generated by such state and/or federally funded special education programs, and all carryover of state and federal special education revenue. Local education agencies with demonstrated capacity and approved applications may access safety net award regardless of the percentage of the local education agency's enrollment of students with disabilities. Beginning in 2019-2020, applicants must either submit veri-

fication of medicaid billing for each high need student application, if applicable, or receive a deduction calculated by office of the superintendent of public instruction as a percentage of the billing rates published by the health care authority to compensate for the local education agency's decision not to pursue medicaid reimbursement.

AMENDATORY SECTION (Amending WSR 15-18-078, filed 8/28/15, effective 9/28/15)

**WAC 392-140-602 Special education safety net—Eligible applicants.** (1) An individual school district of the state of Washington is eligible to apply for special education safety net awards on behalf of its resident students. Resident students include those students as defined by state law. Resident students exclude those residing in another district and enrolled as part of an interdistrict cooperative program (RCW 28A.225.250).

(2) An interdistrict cooperative or educational service agency consistent with WAC 392-172A-01055 and 392-172A-01115 of at least fifteen districts in which all excess cost services for special education students of the member districts are provided by the cooperative or educational agency is eligible to apply for special education safety net awards. Member districts shall be treated as a single school district for the purposes of this chapter and are not eligible to apply for safety net awards individually.

(3) The Washington state center for childhood deafness and hearing loss and the Washington state school for the blind are eligible to apply for high need students under WAC 392-140-616.

(4) Individual charter schools are eligible to apply for special education safety net awards under WAC 392-140-616.

(5) Tribal compact schools are eligible to apply for special education safety net award under WAC 392-140-616.

AMENDATORY SECTION (Amending WSR 15-18-078, filed 8/28/15, effective 9/28/15)

**WAC 392-140-605 Special education safety net—Application types, certification, worksheets.** Application for safety net awards shall be made on Form SPI 1381 - Certification published by the office of the superintendent of public instruction. Applications will be considered and awards made according to the schedule published in the annual *Safety Net Bulletin*.

(1) ~~((School districts and charter schools))~~ Local education agencies may make application for safety net awards ~~((# two categories--))~~ in the following categories, except that the same students may not be submitted in more than one category:

(a) High need student(s) ~~((and/or))~~;

(b) High need student(s) served in residential schools, programs for juveniles under the department of corrections, and programs for juveniles operated under city and county jails; or

(c) Community impact factors.

(2) The applicant for ~~((either or both categories))~~ any category of safety net awards shall certify that:

(a) Differences in costs attributable to ~~((district or charter school))~~ local education agency philosophy, service delivery choice, or accounting practice are not a legitimate basis for safety net awards;

(b) The application complies with the respective safety net application standards of WAC 392-140-616 and 392-140-617;

(c) The application provides true, accurate, and complete information;

(d) The applicant acknowledges that safety net funding is not an entitlement, is subject to adjustment and recovery, may not be available in future years, must be expended in program 21 or program 24 as specified in the ~~((award))~~ conditional decision letter, and certifies that federal medicaid has been billed for all services to eligible students consistent with RCW 28A.150.392 ~~((+(e)))~~ (2)(i) or consents to receive a deduction calculated by the office of the superintendent of public instruction as a percentage of the billing rates published by the health care authority to compensate for the local education agency's decision not to pursue medicaid reimbursement, if applicable;

(e) The applicant is making reasonable effort to provide appropriate services for students in need of special education using state funding generated by the basic education apportionment and special education funding formulas and federal funding in an efficient manner;

(f) ~~((The applicant's special education program is operated in a reasonably efficient manner;~~

~~(g) Indirect costs included for purposes of determining safety net awards do not exceed the allowable federally restricted indirect rate plus one percent;~~

~~(h) Any))~~ All available state and federal funding is insufficient to address the request for additional funds;

~~((+))~~ (g) The costs of any supplemental contracts are not included for purposes of determining safety net awards. Supplemental contracts are those contracts made pursuant to RCW 28A.400.200(4) excluding extended school year contracts (ESY) required by an IEP; and

~~((+))~~ (h) The costs of any summer school instruction are not included for purposes of making safety net determinations excluding extended school year contracts (ESY) required by ~~((a properly formulated IEP))~~ an individualized education program.

~~((+))~~ (3) Worksheet A shall be included with the application and must demonstrate the applicant's capacity for safety net awards. Worksheet A is used to determine a maximum amount of safety net award eligibility. Award amounts may be less than the maximum potential amount of safety net award eligibility determined on worksheet A.

~~((+))~~ (4) All high need student applications shall include worksheets ~~((("A" and "C" and))~~ A and C, the Summary of Applications for High Need Individual Students form published in the safety net application, the individualized education programs applicable during the application period, and certification of standards and criteria pursuant to WAC 392-140-616.

~~((+))~~ (5) All community impact applications shall include worksheet A, the community impact application, all supporting documentation, and certification of standards and criteria pursuant to WAC 392-140-617.

AMENDATORY SECTION (Amending WSR 13-05-054, filed 2/13/13, effective 3/16/13)

**WAC 392-140-609 Special education safety net—Standards and criteria—~~((Properly formulated))~~ IEPs.** A sample of individualized education programs ~~((IEPs) which are properly formulated are those IEPs that at a minimum meet all of the following criteria:~~

(1) ~~The IEPs comply with federal and state procedural requirements.~~

(2) ~~The delivery of specially designed instruction identified on the IEP also complies with state and federal requirements consistent with WAC 392-172A-01155 or as amended.~~

(3) ~~The provision of special education services is consistent with areas of need identified in the student's evaluation and/or reevaluation made pursuant to chapter 392-172A WAC or as amended)) will be reviewed for each applying local education agency (if the local education agency has not had individualized education programs reviewed through the Washington integrated system of monitoring (WISM) process within the last two years). Individualized education programs will be reviewed in areas to be determined by the office of superintendent of public instruction and published in the annual *Safety Net Bulletin*. Areas to be reviewed will be the same for all applications for the school year. Sample sizes will be determined based on data collected by the office of superintendent of public instruction demonstrating local education agency compliance history and statewide areas of needed improvement.~~

AMENDATORY SECTION (Amending WSR 13-05-054, filed 2/13/13, effective 3/16/13)

**WAC 392-140-616 Special education safety net—Standards—High need student applications.** For applicants requesting safety net awards to meet the needs of an eligible high need ~~((special education))~~ student, the applicant shall convincingly demonstrate to a majority of the state oversight committee members at a minimum that:

(1) ~~((The IEP for the eligible special education student is properly formulated consistent with WAC 392-14-609)) (a) The reviewed individualized education program demonstrates compliance with federal and state procedural requirements, in the office of superintendent of public instruction—selected applicable reviewed areas; or~~

~~(b) The local education agency has corrected any non-compliance identified through general supervision processes, including monitoring or during a review of a sample of individualized education programs; and~~

(2) Costs eligible for safety net consideration are associated with providing direct special education and related services identified in ~~((a properly formulated IEP))~~ implementation of an individualized education program and quantifiable by the committee on worksheet C; and

(3) In order to deliver appropriate special education and related services to the student, the applicant is providing services which incur costs exceeding:

(a) The annual threshold as established in WAC 392-140-60105 by the office of superintendent of public instruction for state safety net awards.

(b) Threshold amounts shall be adjusted pro rata for eligible students not served by the applicant on all nine enrollment count dates (October through June). For example, for a student served six of the nine count dates, the threshold amount shall be reduced to two-thirds of the full amount.

(4) The state safety net oversight committee shall adapt the ~~((high need student application))~~ worksheet A for the Washington state school for the blind ~~((and))~~, the Washington state center for childhood deafness and hearing loss, and tribal compact schools.

AMENDATORY SECTION (Amending WSR 15-24-137, filed 12/2/15, effective 1/2/16)

**WAC 392-140-617 Special education safety net—Standards—Community impact applications.** For applicants requesting state safety net awards to meet the extraordinary costs associated with communities that draw a larger number of families with ~~((children))~~ students in need of special education services, the applicant must meet the standards of WAC 392-140-605 ~~((+))~~(2)(a) through ~~((+))~~ (h) and convincingly demonstrate that:

(1) Demographic, environmental, sociological or other factor(s) cause the ~~((district's or charter school's))~~ local education agency's special education enrollment to be disproportional by ~~((category of disability or))~~ the overall number of students identified as eligible for special education; and

(2) The unique factor(s) identified by the applicant is not the result of ~~((district or charter school))~~ local education agency philosophy, service delivery choice, or accounting practice; and

(3) The identified factor(s) creates an adverse documentable fiscal impact upon the applicant's special education program.

AMENDATORY SECTION (Amending WSR 13-05-054, filed 2/13/13, effective 3/16/13)

**WAC 392-140-626 Special education safety net—Worksheet A—Demonstration of need.** Applications for safety net funds shall demonstrate capacity for safety net awards as follows:

(1) Application worksheet ~~((“A”))~~ A shall demonstrate a fiscal capacity in excess of all available revenue to the applicant for special education, including state and federal revenue, program income generated by such state and/or federally funded special education programs, and all carryover of state and federal special education revenue.

(2) Awards shall not exceed the potential capacity for safety net funding on the worksheet ~~((“A.”))~~ A.

(3) Beginning with the 2007-08 school year, worksheets submitted with safety net applications must reflect the full cost method of accounting, pursuant to section 501 (1)(k), chapter 372, Laws of 2006.

(4) The safety net oversight committee may revise the applicant's worksheet ~~((“A”))~~ A as submitted for errors or omissions or more current information.

(5) The applicant shall provide clarifying information at the request of the state oversight committee. Any information specifically requested by the committee on a case-by-case basis during the initial review (and included with the office of

superintendent of public instruction conditional award letter) and provided by the applicant within the requested timeline will be considered during final safety net application reviews. There is no obligation for the committee to request additional information and the presumption is on the applicant to submit a complete and accurate initial application.

(6) After the close of the school year, the applicant's worksheet ("A") A used to determine capacity for an award may be reviewed against the actual final school year enrollments, all available revenues, and legitimate expenditures reported by the applicant. Based upon the results of this review the safety net allocation for the school year may be adjusted or recovered if the awards or a portion of the safety net awards exceeded the demonstrated capacity for funding based upon consideration of all available revenues and legitimate expenditures.

(7) In accordance with the state of Washington *Accounting Manual for Public School Districts* and statutory federal language, potential capacity for safety net awards shall not include legal fees, court costs, or other costs associated with a cause of action brought on behalf of a child to ensure a free appropriate public education.

#### NEW SECTION

**WAC 392-140-635 Special education safety net—Special education program review—Purpose, procedures.** Special education program review reports (as per WAC 392-172A-07010) by staff of the office of superintendent of public instruction special education division may be reviewed by the state safety net oversight committee. The results of the program review may be considered by the oversight committee in determining, adjusting, or recovering safety net award.

AMENDATORY SECTION (Amending WSR 13-05-054, filed 2/13/13, effective 3/16/13)

**WAC 392-140-640 Special education safety net—State oversight committee—Membership, structure.** Membership of the state oversight committee shall consist of: Staff of the office of the state auditor who shall be nonvoting, and one or more representatives from ~~((school districts or educational service districts))~~ local education agencies and educational service districts who are knowledgeable of special education programs and funding.

(1) The ~~((state director))~~ office of superintendent of public instruction assistant superintendent of special education shall serve as an ex officio, nonvoting committee member and act as the state oversight committee manager.

(2) The state oversight committee members will be appointed by the state oversight committee manager.

(3) Members of the state oversight committee will be appointed based on their knowledge of special education program service delivery and funding, geographical representation, size of ~~((district(s) served))~~ local education agency, and other demographic considerations which will ensure a representative state committee.

(4) The oversight committee manager may replace a portion of the committee each year in order to ensure a representative state committee.

AMENDATORY SECTION (Amending WSR 15-24-137, filed 12/2/15, effective 1/2/16)

**WAC 392-140-643 Special education safety net—Definition—State oversight committee—Procedures.** (1) The state safety net oversight committee will review applications as deemed necessary by the office of superintendent of public instruction pursuant to WAC ~~((392-140-608))~~ 392-140-635.

(2) All applications received by the state safety net oversight committee no later than the dates published in the annual *Safety Net Bulletin* will be reviewed for completeness by the state safety net oversight committee manager or designee. Applications must include all necessary forms, worksheets, and attachments described in the annual bulletin published by the office of superintendent of public instruction. ~~((Incomplete applications will not be considered by the committee.))~~

(3) The state safety net oversight committee manager or designee will forward to the committee members electronic copies of the applications for review in a timely manner.

(4) ~~((The state safety net oversight committee manager or designee will be responsible for presenting each application for consideration to the committee.~~

~~((5))~~ State safety net oversight committee members shall review and discuss the applicant's request for safety net awards for completeness and accuracy during meetings as scheduled and published by the office of superintendent of public instruction in the annual *Safety Net Bulletin*.

~~((6))~~ (5) The state safety net oversight committee may require that an applicant provide clarifying information before making a final recommendation. There is no requirement for the committee to request clarifying or missing information, in the event it is not provided by the applicant.

~~((7))~~ (6) State safety net oversight committee members will individually indicate their agreement, disagreement, or abstention with the action of the committee pursuant to WAC 392-140-646.

~~((8))~~ (7) A majority vote by the state safety net oversight committee members in attendance shall be sufficient to determine the committee action.

~~((9))~~ The state safety net oversight committee manager will ensure that notes are taken which summarize the discussion related to each application.

(8) A decision summary for each application will be provided to the applicant and shall include the amount of the initial request, funding adjustments applied by the committee, the amount of any award to be made, and the reasons for the action taken by the state safety net oversight committee.

~~((10))~~ (9) Voting members of the state safety net oversight committee in attendance shall each sign the decision summary.

~~((11))~~ (10) The state safety net oversight committee manager, on behalf of the state safety net oversight committee, will notify the applicant in writing of the determination of the committee. The applicant will be provided a copy of the decision summary.

~~((12))~~ (11) All applications received by the state safety net oversight committee will be retained as per the Washington retention schedule by the office of the superintendent of public instruction for use in the evaluation of the safety net

award process and to provide the office of the superintendent of public instruction with information with which to make future decisions regarding the safety net process.

AMENDATORY SECTION (Amending WSR 15-24-137, filed 12/2/15, effective 1/2/16)

**WAC 392-140-646 Special education safety net—State oversight committee actions.** The state oversight committee shall review all safety net applications.

(1) An application reviewed during an application cycle may be:

- (a) Approved;
- (b) Adjusted for fiscal corrections and approved; ~~((or))~~
- (c) Adjusted for individualized education program non-compliance and approved, if evidence of noncompliance correction is provided;
- (d) A combination of (b) and (c) of this subsection; or
- (e) Disapproved.

(2) The amount approved shall not exceed the amount ~~((for which application was made or adjusted))~~ authorized by the state oversight committee.

(3) The state oversight committee may not approve an application if there are unresolved audit issues related to special education that are material to the application. For purposes of this section, "audit" means an examination of a sub-recipient to determine compliance with the state or federal laws and regulations governing the operation of a specific program and includes program audits, single audits, or any special purpose audit consistent with chapter 392-115 WAC and WAC 392-140-630. "Unresolved" means that the sub-recipient has exhausted the audit resolution process described in chapter 392-115 WAC as amended.

(4) Awards approved by the state oversight committee are subject to recovery pursuant to WAC 392-140-675 through 392-140-685.

AMENDATORY SECTION (Amending WSR 15-18-078, filed 8/28/15, effective 9/28/15)

**WAC 392-140-650 Special education safety net—Withdrawal of application.** If at any time an applicant wishes to withdraw an application submitted prior to the committee vote, the superintendent or designee of the applicant district, or lead administrator or designee of the applicant charter school, tribal compact school, Washington state center for childhood deafness and hearing loss, and the Washington state school for the blind, must submit a letter requesting withdrawal to the state oversight committee manager.

AMENDATORY SECTION (Amending WSR 15-24-137, filed 12/2/15, effective 1/2/16)

**WAC 392-140-656 Special education safety net—Request for review and reconsideration of an action.** An applicant may request review and reconsideration of an action of the state oversight committee made pursuant to WAC 392-140-646.

(1) The applicant shall make the request in writing to the oversight committee manager within twenty calendar days of

the date of the state oversight committee's written determination letter to the applicant pursuant to WAC 392-140-643~~((+))~~ (10). All requests for review and reconsideration not received within twenty days of the written determination letter will not be accepted.

(2) ~~((The applicant shall request reconsideration of the original submission of the state oversight committee.))~~ The request for review and reconsideration of the committee's action must be based on one or more of the following grounds:

- (a) The action was outside the statutory authority of the committee;
- (b) The action failed to follow prescribed procedures;
- (c) The action erroneously interpreted or applied the law;
- (d) The action was not supported by substantial evidence; or
- (e) The action was inconsistent with the agency rules regarding safety net funding.

(3) If the office of the superintendent of public instruction finds grounds for reconsideration pursuant to subsection (2) of this section, OSPI shall request reconsideration of the action by the state oversight committee. OSPI shall state the grounds for reconsideration supported by the facts considered.

AMENDATORY SECTION (Amending WSR 13-05-054, filed 2/13/13, effective 3/16/13)

**WAC 392-140-660 Special education safety net—Approved application—Special education safety net awards.** (1) The special education safety net award for an individual ~~((district))~~ applicant shall be the ~~((lesser of:~~

- ~~(a) The amount requested; or~~
- ~~(b) The))~~ amount authorized by the state oversight committee.

(2) Special education safety net awards for high need students under WAC 392-140-605(1) shall use federal and state funds appropriated by the legislature consistent with RCW 28A.150.392 (1)(a).

AMENDATORY SECTION (Amending WSR 15-18-078, filed 8/28/15, effective 9/28/15)

**WAC 392-140-675 Special education safety net—Adjustments to special education safety net award.** Final safety net award shall be adjusted based on~~((:~~

~~(1) The percent of potential medicaid eligible students billed. Potential medicaid revenue will be estimated by the office of the superintendent of public instruction based on the applicant's percent of medicaid eligible students billed and the statewide average payment per student as determined in July of the school year for which the applicant is requesting safety net awards. The office of the superintendent of public instruction shall provide Form SPI 1679 for district and charter school reporting of medicaid eligible students and shall update the district's or charter school's special education medicaid eligibility count and finalize the count for the year based upon the applicant's most recent submission of Form SPI 1679; and~~

~~(2))~~ changes in factors for which additional or revised information becomes available after the awarding of the initial safety net award.

~~((a))~~ (1) High need award and/or community impact award will be reduced or nullified when the applicant's available revenues and legitimate expenditures for the school year differ significantly from the estimates on which the initial safety net award was based.

~~((b))~~ (2) An applicant's safety net award may be recovered or adjusted based on the results of the review conducted by the state auditor's office pursuant to WAC 392-140-630.

**AMENDATORY SECTION** (Amending WSR 15-18-078, filed 8/28/15, effective 9/28/15)

**WAC 392-140-685 Special education safety net—Recovery of state and/or federal award.** High need student state and/or federal special education safety net award and state community impact safety net award shall be recovered or award reduced for the following reasons:

(1) The application omits pertinent information and/or contains a falsification or misrepresentation of information in the application.

(2) The award is unexpended for the purpose allocated including, but not limited to, situations where the student leaves a school district, ~~((ceases attending a))~~ charter school, tribal compact school, Washington state center for childhood deafness and hearing loss, and the Washington state school for the blind, or has a change in services. For students who transfer to another Washington public school district or enroll in a charter school or tribal compact school located in Washington state, expenditures for specialized equipment purchased with these funds shall not be recovered provided the district ~~((or))~~, charter school or tribal compact school transfers the equipment to the other school district ~~((or))~~, charter school or tribal compact school.

(3) The applicant has carryover of state and/or federal flow-through special education funding from the school year for which the award was made.

(4) The applicant's available revenues are significantly higher than estimated revenues on which the award was based or the applicant's legitimate expenditures are significantly lower than the estimated expenditures on which the award was based.

(5) The state oversight committee finds grounds for adjustment in the special education program audit team's review pursuant to WAC 392-140-630.

**WSR 19-01-040**  
**PERMANENT RULES**  
**SUPERINTENDENT OF**  
**PUBLIC INSTRUCTION**

[Filed December 13, 2018, 9:27 a.m., effective January 13, 2019]

Effective Date of Rule: Thirty-one days after filing.

Purpose: This rule amendment removes language from WAC 392-121-415 that reduces state basic education apportionment payments by the amount derived from proceeds from the sale, rental or lease of stone, minerals, timber, forest

products, other crops and matter, and improvements from or on tax title real property managed by a county pursuant to chapter 36.35 RCW.

Citation of Rules Affected by this Order: Amending WAC 392-121-415.

Statutory Authority for Adoption: RCW 28A.150.290, 28A.710.220.

Adopted under notice filed as WSR 18-20-127 on October 3, 2018.

Number of Sections Adopted in Order to Comply with Federal Statute: New 0, Amended 0, Repealed 0; Federal Rules or Standards: New 0, Amended 0, Repealed 0; or Recently Enacted State Statutes: New 0, Amended 0, Repealed 0.

Number of Sections Adopted at the Request of a Non-governmental Entity: New 0, Amended 0, Repealed 0.

Number of Sections Adopted on the Agency's own Initiative: New 0, Amended 1, Repealed 0.

Number of Sections Adopted in Order to Clarify, Streamline, or Reform Agency Procedures: New 0, Amended 0, Repealed 0.

Number of Sections Adopted using Negotiated Rule Making: New 0, Amended 0, Repealed 0; Pilot Rule Making: New 0, Amended 0, Repealed 0; or Other Alternative Rule Making: New 0, Amended 0, Repealed 0.

Date Adopted: December 12, 2018.

Chris P. S. Reykdal  
State Superintendent  
of Public Instruction

**AMENDATORY SECTION** (Amending WSR 18-10-025, filed 4/24/18, effective 5/25/18)

**WAC 392-121-415 Basic education allocation—Deductible revenues.** In addition to those funds appropriated by the legislature for basic education allocation purposes, the following locally available general fund revenues shall be included in the computation of the total annual basic education allocation of each school district or charter school pursuant to RCW 28A.150.250 and 28A.150.260 and shall be deducted from payments made pursuant to WAC 392-121-400:

(1) ~~((Proceeds from the sale, rental or lease of stone, minerals, timber, forest products, other crops and matter, and improvements from or on tax title real property managed by a county pursuant to chapter 36.35 RCW;~~

~~(2))~~ Federal in lieu of tax payments made pursuant to RCW 84.72.020; and

~~((3))~~ (2) Proceeds from the sale of lumber, timber, and timber products on military reservations or facilities in accordance with U.S.C. §2665, Title 10, and P.L. 97-99.

~~((4))~~ (3) Local in lieu of tax payments including but not limited to payments made pursuant to RCW 35.82.210, 35.83.040, and 79.19.110.

Otherwise deductible revenues from any of the foregoing sources received by a school district due solely to the district's levy of a capital projects fund or debt service fund excess tax levy shall constitute nongeneral fund revenues and shall not be deducted in the computation of the district's annual basic education allocation for that school year.

**WSR 19-01-045**  
**PERMANENT RULES**  
**DEPARTMENT OF**  
**NATURAL RESOURCES**

[Filed December 13, 2018, 11:22 a.m., effective January 13, 2019]

Effective Date of Rule: Thirty-one days after filing.

Purpose: Amending current land boundary survey standards, adding new definitions and the use of relative accuracy to chapter 332-130 WAC. The department of natural resources is authorized by RCW 58.24.040(1) to: "Set up standards of accuracy and methods of procedure."

Citation of Rules Affected by this Order: New WAC 332-130-085; and amending WAC 332-130-020, 332-130-030, 332-130-050, 332-130-060, 332-130-070, and 332-130-100.

Statutory Authority for Adoption: RCW 58.24.040(1).

Adopted under notice filed as WSR 18-20-062 on September 27, 2018.

Changes Other than Editing from Proposed to Adopted Version: Definition of GNSS added to WAC 332-130-020.

Number of Sections Adopted in Order to Comply with Federal Statute: New 0, Amended 0, Repealed 0; Federal Rules or Standards: New 0, Amended 0, Repealed 0; or Recently Enacted State Statutes: New 0, Amended 0, Repealed 0.

Number of Sections Adopted at the Request of a Non-governmental Entity: New 0, Amended 0, Repealed 0.

Number of Sections Adopted on the Agency's own Initiative: New 1, Amended 0, Repealed 0.

Number of Sections Adopted in Order to Clarify, Streamline, or Reform Agency Procedures: New 0, Amended 0, Repealed 0.

Number of Sections Adopted using Negotiated Rule Making: New 0, Amended 0, Repealed 0; Pilot Rule Making: New 0, Amended 0, Repealed 0; or Other Alternative Rule Making: New 0, Amended 0, Repealed 0.

Date Adopted: December 12, 2018.

Angus W. Brodie  
Deputy Supervisor  
for State Uplands

AMENDATORY SECTION (Amending WSR 09-03-084, filed 1/20/09, effective 7/1/09)

**WAC 332-130-020 Definitions.** The following definitions shall apply to this chapter:

(1) **Local geodetic control surveys:** Surveys for the specific purpose of establishing control points for extending the National Geodetic Survey horizontal and vertical control nets, also known as the National Spatial Reference System (NSRS), but not submitted to the National Geodetic Survey for inclusion in the NSRS.

(2) **GLO and BLM:** The General Land Office and its successor, the Bureau of Land Management.

(3) **Land boundary surveys:** All surveys, whether made by individuals, entities or public bodies of whatever nature, for the specific purpose of establishing, reestablishing, laying out, subdividing, defining, locating and/or monumenting the vertical or horizontal boundary of any easement, right of

way, lot, tract, or parcel of real property or which reestablishes or restores General Land Office or Bureau of Land Management survey corners.

(4) **Land corner record:** The record of corner information form as prescribed by the department of natural resources in WAC 332-130-025.

(5) **Land description:** A description of real property or of rights associated with real property.

(6) **Land surveyor:** Any person authorized to practice the profession of land surveying under the provisions of chapter 18.43 RCW.

(7) ~~(Measurement redundancy: To perform sufficient measurements to reduce or isolate blunders and statistically improve measurement accuracy.~~

(8) ~~NAD83: North American Datum of 1983 as designated by chapter 58.20 RCW.~~

(9) Redundant measurements: Independent observations of a quantity that are collected under different conditions. Horizontal angles measured to a point from multiple backsights, observing reciprocal zenith angles and backsight distances, "closing the horizon," and GNSS positions for a point that are computed using different satellite constellations are examples of redundant measurements.

(8) **Parcel:** A part or portion of real property including but not limited to GLO and BLM segregations, easements, rights of way, aliquot parts of sections or tracts.

~~((+H))~~ (9) **Survey Recording Act:** The law as established and designated in chapter 58.09 RCW.

~~((+H))~~ (10) **Washington plane coordinate system:** The system of plane coordinates as established and designated by chapter 58.20 RCW.

(11) Intelligent interpretation: A land boundary survey capable of intelligent interpretation will provide, either on the face of the document or by reference to other pertinent surveys of record, information that is sufficient in kind and quality to explain the rationale for the boundary locations shown thereon and to allow for the accurate and unambiguous retracement or re-creation thereof without requiring oral testimony for clarification. Includes, but is not limited to, information required in RCW 58.09.060(1) and WAC 332-130-050.

(12) Relative accuracy: The theoretical uncertainty in the horizontal position of any subordinate point or corner with respect to other controlling points or corners, whether set, found, reestablished, or established. Relative accuracy is not related to uncertainties due to differences between measured values and record values or uncertainties in the geodetic position.

(13) Relative precision: An expression of linear misclosure, e.g., 1 part in 5000, in a closed traverse. Relative precision is computed after azimuths in a traverse have been adjusted. Relative precision is not a reliable predictor of relative accuracy.

(14) Controlling point or corner: Those points, whose horizontal positions are used to compute, establish or reestablish the horizontal positions of other subordinate points or corners. Subordinate points or corners are therefore dependent upon the positions of controlling points or corners.

(15) **GNSS:** Global navigation satellite system.

AMENDATORY SECTION (Amending WSR 90-06-028, filed 3/1/90, effective 4/1/90)

**WAC 332-130-030 Land subdivision and corner restoration standards—Recording.** The following requirements apply when a land boundary survey is performed. If, in the professional judgment of the surveyor, the procedures of subsections (1) and (2) of this section are not necessary to perform the survey, departures from these requirements shall be explained and/or shown on the survey map produced.

(1) The reestablishment of lost GLO or BLM corners and the subdividing of sections shall be done according to applicable GLO or BLM plats and field notes and in compliance with the rules as set forth in the appropriate GLO or BLM *Manual of Surveying Instructions*, manual supplements and circulars. Federal or state court decisions that influence the interpretation of the rules should be considered. Methods used for such corner reestablishment or section subdivision shall be described on the survey map produced.

(2) All maps, plats, or plans showing a land boundary survey shall show all the corners found, established, reestablished and calculated, including corresponding directions and distances, which were used to survey and which will be necessary to resurvey the parcel shown. Additionally, all such maps, plats, or plans shall show sufficient section subdivision data, or other such controlling parcel data, necessary to support the position of any section subdivisional corner or controlling parcel corner used to reference the parcel surveyed. Where a portion or all of this information is already shown on a record filed or recorded in the county recording office of the county in which the parcel is located, reference may be made to that record in lieu of providing the required data.

(3) Documentation shall be provided for all GLO or BLM corner(s) or point(s) used to control the location of the parcel surveyed. This requirement shall be met by providing on the document produced:

(a) The information required by both the Survey Recording Act and the history and evidence found sections of the Land Corner Record Form; or

(b) The recording data of a document(s) that provides the required information and is filed or recorded in the county recording office of the county in which the parcel is located.

(4) Every corner originally monumented by the GLO or BLM that is physically reestablished shall be monumented in accordance with the Survey Recording Act. If the reestablished corner is not filed or recorded as part of a record of survey, plat or short plat, at least three references shall be established and filed or recorded on a Land Corner Record Form. If the reestablished corner is filed or recorded as part of a record of survey, plat or short plat, then ties to at least two other monuments shown on the record document may serve in lieu of the required references. A valid set of coordinates on the Washington plane coordinate system may serve as one of the references. However, to best ensure an accurate relocation, references in close proximity to the corner are recommended. Monuments placed shall be magnetically locatable and include a cap stamped with the appropriate corner designation as defined in the current BLM *Manual of Surveying Instructions*.

AMENDATORY SECTION (Amending WSR 00-17-063, filed 8/9/00, effective 9/9/00)

**WAC 332-130-050 Survey map requirements.** The following requirements apply to land boundary survey maps and plans, records of surveys, plats, short plats, boundary line adjustments, and binding site plans required by law to be filed or recorded with the county.

(1) All such documents filed or recorded shall conform to the following:

(a) They shall display a county recording official's information block which shall be located along the bottom or right edge of the document unless there is a local requirement specifying this information in a different format. The county recording official's information block shall contain:

(i) The title block, which shall be on all sheets of maps, plats or plans, and shall identify the business name of the firm and/or land surveyor that performed the survey. For documents not requiring a surveyor's certificate and seal, the title block shall show the name and business address of the preparer and the date prepared. Every sheet of multiple sheets shall have a sheet identification number, such as "sheet 1 of 5";

(ii) The auditor's certificate, where applicable, which shall be on the first sheet of multiple sheets; however, the county recording official shall enter the appropriate volume and page and/or the auditor's file number on each sheet of multiple sheets;

(iii) The surveyor's certificate, where applicable, which shall be on the first sheet of multiple sheets and shall show the name, license number, original signature and seal of the land surveyor who had responsible charge of the survey portrayed, and the date the land surveyor approved the map or plat. Every sheet of multiple sheets shall have the seal and signature of the land surveyor and the date signed;

(iv) The following indexing information on the first sheet of multiple sheets:

(A) The section-township-range and quarter-quarter(s) of the section in which the surveyed parcel lies, except that if the parcel lies in a portion of the section officially identified by terminology other than aliquot parts, such as government lot, donation land claim, homestead entry survey, townsite, tract, and Indian or military reservation, then also identify that official subdivisional tract and call out the corresponding approximate quarter-quarter(s) based on projections of the aliquot parts. Where the section is incapable of being described by projected aliquot parts, such as the Port Angeles townsite, or elongated sections with excess tiers of government lots, then it is acceptable to provide only the official GLO designation. A graphic representation of the section divided into quarter-quarters may be used with the quarter-quarter(s) in which the surveyed parcel lies clearly marked;

(B) Additionally, if appropriate, the lot(s) and block(s) and the name and/or number of the filed or recorded subdivision plat or short plat with the related recording data;

(b) They shall contain:

(i) A north arrow;

(ii) The vertical datum when topography or elevations are shown;

(iii) The basis for bearings, angle relationships or azimuths shown. The description of the directional reference

system, along with the method and location of obtaining it, shall be clearly given (such as "North by Polaris observation at the SE corner of section 6"; "Grid north from azimuth mark at station Kellogg"; "North by compass using twenty-one degrees variation"; "None"; or "Assumed bearing based on ..."). If the basis of direction differs from record title, that difference should be noted;

(iv) Bearings, angles, or azimuths in degrees, minutes and seconds;

(v) Distances in feet and decimals of feet;

(vi) Curve data showing the controlling elements.

(c) They shall show the scale for all portions of the map, plat, or plan provided that detail not drawn to scale shall be so identified. A graphic scale for the main body of the drawing, shown in feet, shall be included. The scale of the main body of the drawing and any enlargement detail shall be large enough to clearly portray all of the drafting detail, both on the original and reproductions;

(d) The document filed or recorded and all copies required to be submitted with the filed or recorded document shall, for legibility purposes:

(i) Have a uniform contrast suitable for scanning or microfilming(☺);

(ii) Be without any form of cross-hatching, shading, or any other highlighting technique that to any degree diminishes the legibility of the drafting detail or text;

(iii) Contain dimensioning and lettering no smaller than 0.08 inches, vertically, and line widths not less than 0.008 inches (equivalent to pen tip 000). This provision does not apply to vicinity maps, land surveyors' seals and certificates.

(e) They shall not have any adhesive material affixed to the surface;

(f) For the intelligent interpretation of the various items shown, including the location of points, lines and areas, they shall:

(i) Reference record survey documents that identify different corner positions;

(ii) Show deed calls that are at variance with the measured distances and directions of the surveyed parcel;

(iii) Identify all corners used to control the survey whether they were calculated from a previous survey of record or found, established, or reestablished;

(iv) Give the physical description of any monuments shown, found, established or reestablished, including type, size, and date visited;

(v) Show the record land description of the parcel or boundary surveyed or a reference to an instrument of record;

(vi) Identify any ambiguities, hiatuses, and/or overlapping boundaries;

(vii) Give the location and identification of any visible physical appurtenances such as fences or structures which may indicate encroachment, lines of possession, or conflict of title.

(2) All signatures and writing shall be made with permanent black ink.

(3) The following criteria shall be adhered to when altering, amending, changing, or correcting survey information on previously filed or recorded maps, plats, or plans:

(a) Such ~~((documents))~~ maps, plats, or plans filed or recorded shall comply with the applicable local requirements

and/or the recording statute under which the original map, plat, or plan was filed or recorded;

(b) Alterations, amendments, changes, or corrections to a previously filed or recorded map, plat, or plan shall only be made by filing or recording a new ~~((document))~~ map, plat, or plan;

(c) All such ~~((documents))~~ maps, plats, or plans filed or recorded shall contain the following information:

(i) A title or heading identifying the ~~((document))~~ map, plat, or plan as an alteration, amendment, change, or correction to a previously filed or recorded map, plat, or plan along with, when applicable, a cross-reference to the volume and page and auditor's file number of the altered ~~((document))~~ map, plat, or plan;

(ii) Indexing data as required by subsection (1)(a)(iv) of this section;

(iii) A prominent note itemizing the change(s) to the original ~~((document))~~ map, plat, or plan. Each item shall explicitly state what the change is and where the change is located on the original;

(d) The county recording official shall file, index, and cross-reference all such ~~((documents))~~ maps, plats, or plans received in a manner sufficient to provide adequate notice of the existence of the new ~~((document))~~ map, plat, or plan to anyone researching the county records for survey information;

(e) The county recording official shall send to the department of natural resources, as per RCW 58.09.050(3), a legible copy of any ~~((document))~~ map, plat, or plan filed or recorded which alters, amends, changes, or corrects survey information on any ~~((document))~~ map, plat, or plan that has been previously filed or recorded pursuant to the Survey Recording Act.

(4) Survey maps, plats and plans filed with the county shall be an original that is legibly drawn in black ink on mylar and is suitable for producing legible prints through scanning, microfilming or other standard copying procedures. The following are allowable formats for the original that may be used in lieu of the format stipulated above:

(a) Photo mylar with original signatures(☺);

(b) Any standard material as long as the format is compatible with the auditor's recording process and records storage system. Provided, that records of survey filed pursuant to chapter 58.09 RCW are subject to the restrictions stipulated in RCW 58.09.110(5)(☺);

(c) An electronic version of the original if the county has the capability to accept a digital signature issued by a licensed certification authority under chapter 19.34 RCW or a certification authority under the rules adopted by the Washington state board of registration for professional engineers and land surveyors, and can import electronic files into an imaging system. The electronic version shall be a standard raster file format acceptable to the county.

(5) The following checklist is the only checklist that may be used to determine the recordability of records of survey filed pursuant to chapter 58.09 RCW. There are other requirements to meet legal standards. This checklist also applies to maps filed pursuant to the other survey map recording statutes, but for these maps there may be additional sources for determining recordability.

**CHECKLIST FOR SURVEY MAPS BEING RECORDED**

(Adopted in WAC 332-130)

The following checklist applies to land boundary survey maps and plans, records of surveys, plats, short plats, boundary line adjustments, and binding site plans required by law to be filed or recorded with the county. There are other requirements to meet legal standards. Records of survey filed pursuant to chapter 58.09 RCW, that comply with this checklist, shall be recorded; no other checklist is authorized for determining their recordability.

**ACCEPTABLE MEDIA:**

- For counties required to permanently store the document filed, the only acceptable media are:
  - Black ink on mylar or photo mylar
- For counties exempted from permanently storing the document filed, acceptable media are:
  - Any standards material compatible with county processes; or, an electronic version of the original.
- All signatures must be original and, on hardcopy, made with permanent black ink.
- The media submitted for filing must not have any material on it that is affixed by adhesive.

**LEGIBILITY:**

- The documents submitted, including paper copies, must have a uniform contrast throughout the document.
- No information, on either the original or the copies, should be obscured or illegible due to cross-hatching, shading, or as a result of poor drafting technique such as lines drawn through text or improper pen size selection (letters or number filled in such that 3's, 6's or 8's are indistinguishable).
- Signatures, date, and seals must be legible on the prints or the party placing the seal must be otherwise identified.
- Text must be 0.08 inches or larger; line widths shall not be less than 0.008 inches (vicinity maps, land surveyor's seals and certificates are excluded).

**INDEXING:**

- The recording officer's information block must be on the bottom or right edge of the map.
  - A title block (shows the name of the preparer and is on each sheet of multiple sheets).
  - An auditor's certificate (on the first sheet of multiple sheets, although Vol./Pg. and/or AF# must be entered by the recording officer on each sheet).
  - A surveyor's certificate (on the first sheet of multiple sheets; seal, date, and signature on multiple sheets).
- The map filed must provide the following indexing data:
  - S-T-R and the quarter-quarter(s) or approximate quarter-quarter(s) of the section in which the surveyed parcel lies,

Optional: A graphic representation of the section divided into quarter-quarters may be used with the quarter-quarter(s) in which the surveyed parcel lies clearly marked;

**MISCELLANEOUS**

- If the function of the document submitted is to change a previously filed record, it must also have:
  - A title identifying it as a correction, amendment, alteration or change to a previously filed record,
  - A note itemizing the changes.
- For records of survey:
  - The sheet size must be 18" x 24"
  - The margins must be 2" on the left and 1/2" for the others, when viewed in landscape orientation.
  - In addition to the map being filed there must be two prints included in the submittal; except that, in counties using imaging systems fewer prints, as determined by the Auditor, may be allowed.

**Reviser's note:** The brackets and enclosed material in the text of the above section occurred in the copy filed by the agency and appear in the Register pursuant to the requirements of RCW 34.08.040.

**AMENDATORY SECTION** (Amending WSR 05-13-104, filed 6/17/05, effective 7/18/05)

**WAC 332-130-060 Local geodetic control survey standards.** The following standards shall apply to local geodetic control surveys:

The datum for the horizontal control network in Washington shall be (~~NAD83~~) as officially adjusted and published by the National Geodetic Survey of the United States Department of Commerce (~~(ø#)~~) as established in accordance with chapter 58.20 RCW. The datum tag and coordinate epoch date (~~(if pertinent)~~) shall be reported on all documents prepared, which show local geodetic control (~~(; e.g., NAD83 (1991), NAD83 (CORS) (2002.00), NAD83 (NSRS) (2005.50) and other future [standards]).~~).

**AMENDATORY SECTION** (Amending WSR 05-13-104, filed 6/17/05, effective 7/18/05)

**WAC 332-130-070 Land boundary survey standards.** The following standards shall apply to land boundary surveys:

(1) The accuracy or precision of field work may be determined and reported (~~(by)~~) using either relative accuracy (~~(procedures)~~) standards or field traverse standards, provided that (~~(the final result shall)~~) field work not capable of analysis with field traverse standards must be evaluated using relative accuracy standards and procedures. Final results must meet or exceed the appropriate standards as contained in WAC 332-130-085 or 332-130-090.

(2) The datum when using the Washington Plane Coordinate System shall be (~~NAD83~~) as officially adjusted and published by the National Geodetic Survey of the United States Department of Commerce (~~(ø#)~~) as established in accordance with chapter 58.20 RCW. The datum tag and the

coordinate epoch date (~~((if pertinent))~~) shall be reported on all documents prepared which reference the Washington Plane Coordinate System (~~(; e.g., NAD83 (1991), NAD83 (CORS) (2002.00), NAD83 (NSRS) (2005.50) and other future standards)~~).

#### NEW SECTION

**WAC 332-130-085 Relative accuracy standards for land boundary surveys.** The following standards may be applied to boundary surveys utilizing field traverses and shall be applied when positioning techniques used in a land boundary survey are not amenable to analysis with standards in WAC 332-130-090. Such standards should be considered minimum standards only. Higher levels of accuracy are expected to be utilized in areas with higher property values or in other situations necessitating higher accuracy.

The maximum allowable relative accuracy for positions shown on a boundary survey under this standard is 0.07 feet plus 200 parts per million at the ninety-five percent confidence level, based on the distance shown on the map between the two positions being tested. It is recognized that in certain circumstances, the size or configuration of the surveyed property, or the relief, vegetation, or improvements on the surveyed property, can result in survey measurements that may cause the maximum allowable relative accuracy in the survey to be exceeded. If the maximum allowable relative accuracy in the survey is exceeded, the surveyor shall report the reasons for exceeding the standard, shall identify those monuments whose positions exceed the standard and the amount by which said monuments exceed the standard.

AMENDATORY SECTION (Amending WSR 04-11-019, filed 5/10/04, effective 6/10/04)

**WAC 332-130-100 Equipment and procedures.** (1) All land boundary surveys filed or recorded shall contain a statement identifying the type of equipment used, such as ~~((10-second theodolite and calibrated chain, or 10-second))~~ 3-second theodolite and electronic distance measuring unit, total station or GNSS receiver, and procedures used, such as field traverse, scanning, photogrammetric survey, ~~((global positioning system survey))~~ GNSS based relative static or real time kinematic survey, or a combination thereof to accomplish the survey shown;

(2) All measuring instruments and equipment shall be maintained in adjustment according to manufacturer's specifications.

#### WSR 19-01-047

#### PERMANENT RULES

#### EASTERN WASHINGTON UNIVERSITY

[Filed December 13, 2018, 11:27 a.m., effective January 13, 2019]

Effective Date of Rule: Thirty-one days after filing.

Purpose: The revisions to chapter 172-121 WAC, Student conduct code, update university definitions, processes and procedures for student conduct hearings.

Citation of Rules Affected by this Order: Amending WAC 172-121-010, 172-121-020, 172-121-030, 172-121-070, 172-121-075, 172-121-080, 172-121-100, 172-121-105, 172-121-110, 172-121-120, 172-121-121, 172-121-122, 172-121-130, 172-121-140, and 172-121-200.

Statutory Authority for Adoption: RCW 28B.35.120 (12), 42.56.070.

Adopted under notice filed as WSR 18-22-035 on October 29, 2018.

Number of Sections Adopted in Order to Comply with Federal Statute: New 0, Amended 0, Repealed 0; Federal Rules or Standards: New 0, Amended 0, Repealed 0; or Recently Enacted State Statutes: New 0, Amended 0, Repealed 0.

Number of Sections Adopted at the Request of a Non-governmental Entity: New 0, Amended 0, Repealed 0.

Number of Sections Adopted on the Agency's own Initiative: New 0, Amended 15, Repealed 0.

Number of Sections Adopted in Order to Clarify, Streamline, or Reform Agency Procedures: New 0, Amended 0, Repealed 0.

Number of Sections Adopted using Negotiated Rule Making: New 0, Amended 0, Repealed 0; Pilot Rule Making: New 0, Amended 0, Repealed 0; or Other Alternative Rule Making: New 0, Amended 0, Repealed 0.

Date Adopted: December 12, 2018.

Joseph Fuxa  
Labor Relations Manager

AMENDATORY SECTION (Amending WSR 13-24-123, filed 12/4/13, effective 1/4/14)

**WAC 172-121-010 Introduction.** Eastern Washington University is an academic community dedicated to providing instruction in higher education, advancing knowledge through scholarship and research, and providing related services to the community.

As a public institution of higher education, the university has a special responsibility to create and maintain an academic environment that promotes freedom of inquiry and expression while protecting the rights, opportunities and welfare of students, faculty, staff and guests. To achieve this, the university establishes rules, regulations, procedures, policies, and standards of conduct.

Through the student conduct code as well as other university policies and directives, the university sets forth specific behavioral and academic expectations for students and student organizations. It is the responsibility of each student to clearly understand and comply with those expectations. ~~((The responsibility for enforcement of the student conduct code rests with the university president.))~~

The board of trustees of Eastern Washington University, acting under the authority granted by RCW 28B.35.120, has established the following regulations for student conduct and discipline. The responsibility for enforcement of the student conduct code rests with the university president and is further delegated to the vice president for student affairs or designee.

These provisions are not intended to protect any person or class of persons from injury or harm.

AMENDATORY SECTION (Amending WSR 17-17-031, filed 8/9/17, effective 9/9/17)

**WAC 172-121-020 Definitions.** For purposes of the student conduct code, chapter 172-121 WAC, the definitions in this section apply.

"Appeal authority" refers to the conduct review official presiding over an appeal under WAC 172-121-130.

"Appellant" refers to any respondent or complainant who appeals the decisions or sanctions of a hearing authority under WAC 172-121-130.

"Brief hearing" refers to a brief conduct review hearing before a conduct review officer or the student disciplinary council for allegations that, if substantiated by a preponderance of evidence, would result in a sanction less than a suspension or expulsion and that do not involve felony-level sexual misconduct.

"Business days" refers to the days and hours the university is open for business. Business days are Monday through Friday, from 8:00 a.m. to 5:00 p.m., excluding holidays as set forth in the university holiday schedule.

"Complainant" means ((any person who files a complaint alleging that a student or student organization violated the standards of conduct for students. Complainant also refers to the university when the university files the complaint)) the person who was subjected to the alleged misconduct. The complainant may or may not be the reporting party. If the person who was subjected to the alleged misconduct does not wish to pursue a student conduct case, the university may choose to fill the role of the complainant throughout the student conduct proceedings.

"Conduct review officer" or "CRO" refers to the person designated to serve as the decision maker for a brief or full hearing.

"Council" or "the council" refers to the student disciplinary council as described in WAC 172-121-070.

"Council hearing" refers to a ~~((full))~~ brief conduct review hearing before the student disciplinary council.

"Dean of students" refers to the dean of students or ~~((a))~~ designee ~~((of the dean of students)).~~

"Director of SRR" refers to the director of student rights and responsibilities ~~((, or designated representative))~~ or designee.

"Filing" means to actually deliver documents. Documents required to be filed with a specific person under these rules shall be deemed filed upon actual receipt during office hours at EWU. Papers may be filed by delivering them to the dean of student's office, sending them via United States mail, properly addressed, postage prepaid, to ~~((300 Showalter Hall))~~ 301 Pence Union Building, or emailing them to ~~((studentrights@ewu.edu))~~ srr@ewu.edu.

"Full hearing" refers to a full conduct reviewing hearing before a conduct review officer for allegations that, if substantiated by a preponderance of the evidence, could result in a sanction of a suspension or expulsion, or that constitute felony-level sexual misconduct.

"Hearing authority" refers to the university official or student disciplinary council who holds a conduct review hearing.

"Notify" means to provide notice to a person. A person may be notified in person, by telephone, by sending notice to

the person's university email account, by leaving a message on his or her personal telephone, or by sending the notice in the United States mail, properly addressed, postage prepaid, to the person's last known address.

"Off-campus" refers to any location or facility that is not owned, leased, rented, or operated by Eastern Washington University.

"Party/parties" refers to the complainant and the respondent.

"Policies" or "university policy" refers to the written regulations of the university, including the standards of conduct for students, residence life handbook, university policies, and graduate/undergraduate catalogs and handbooks.

"Recognized student organizations" refers to clubs, organizations, societies or similarly organized groups recognized by the university or the associated students of Eastern Washington University (ASEWU).

"Reporting party" means the person who notifies student rights and responsibilities of alleged misconduct by a student or student organization. The reporting party may also be the complainant, but need not be the complainant.

"Respondent" refers to any student or student organization ~~((that is))~~ accused of violating the student conduct code under this chapter.

"Serve" means to post a document in the United States mail, properly addressed, postage prepaid, to a person's last known address, personal service, or electronic service to the person's university email account. Service by mail is complete upon deposit in the United States mail.

"Session council" refers to the student disciplinary council members selected for a specific hearing or appeal.

"Sexual misconduct" encompasses sexual harassment, domestic violence, ~~((relationship))~~ dating violence, stalking, and acts of ~~((sexual violence))~~ nonconsensual sexual activity for the purposes of WAC 172-121-030 through 172-121-140. These terms are further defined in WAC 172-121-200.

~~((("Sexual misconduct hearing" refers to a full conduct review hearing before a university official for allegations of sexual misconduct which, if substantiated by a preponderance of the evidence, could result in a sanction of suspension or expulsion, or that rise to the level of felony-level sexual misconduct.))~~

"Student" includes all of the following:

(a) Any applicant who becomes enrolled, for violations of the code committed as part of the application process or committed following the applicant's submission of the application until the time of official enrollment;

(b) Any person currently enrolled at the university;

(c) Nonmatriculated, international students attending institutes or foreign study programs through the university; and

(d) Any person who was previously enrolled at the university for violations of the code committed while enrolled. A person who engaged in conduct in violation of the student conduct code while a student remains subject to action under this code even if the person has graduated, withdrawn, or is not currently enrolled for any reason.

~~((("Summary hearing" refers to a brief review hearing before the conduct review officer.))~~

"University" means Eastern Washington University.

"University official" includes any person employed or contracted by the university, performing assigned administrative or professional responsibilities.

"University premises" means buildings and/or property (including adjacent streets and sidewalks) which are owned, leased, rented or operated by the university, to include all satellite campuses affiliated with the university.

"University president" refers to the university president or ((a) designee ((of the university president)).

"Vice president for student affairs" refers to the vice president for student affairs or ((their designated representative)) designee.

**AMENDATORY SECTION** (Amending WSR 13-24-123, filed 12/4/13, effective 1/4/14)

**WAC 172-121-030 Rights of students.** Any student or student organization charged with any violation of the student conduct code and the ((victim)) complainant in the case of an allegation of ((harassment or)) sexual misconduct, have the following rights:

- (1) The right to a fair and impartial conduct review process;
- (2) The right to prior written notice to attend a preliminary conference or hearing;
- (3) The right to remain silent during any conduct review hearing;
- (4) The right to know who filed the complaint against them as described in WAC 172-121-110;
- (5) The right to speak on their own behalf in all proceedings;
- (6) The right to hear all information and view all material presented against him or her;
- (7) The right to call witnesses as described in WAC ((172-121-120)) 172-121-121 or 172-121-122;
- (8) The right to ask or submit questions to be asked of witnesses for a full hearing, in a method determined by the conduct review officer, as described in WAC ((172-121-120)) 172-121-122;
- (9) The right to consult an advisor as described in WAC ((172-121-090)) 172-121-105(3);
- (10) The right to appeal as provided in WAC 172-121-130; and
- (11) The right to be subjected to university disciplinary action only one time for the same conduct.

**AMENDATORY SECTION** (Amending WSR 17-17-031, filed 8/9/17, effective 9/9/17)

**WAC 172-121-070 Conduct review officials.** (1) The director of SRR or designee shall:

- (a) Serve as the primary point of contact for all matters relating to student conduct code violations and proceedings;
- (b) Manage the proceedings as described in this chapter;
- (c) Maintain all records of conduct review proceedings as described in WAC 172-121-080;
- (d) Ensure complaints are promptly investigated and resolved as required by federal and state laws((-)); and
- (e) Review off-campus incidents of alleged misconduct and make determinations as to whether the conduct involved adversely affects the university community and/or the pursuit

of its objectives and whether the conduct process should be initiated.

(2) Conduct review officer (CRO): The university president ((shall)) delegates to the vice president of student affairs the authority to designate one or more conduct review officers. The director of SRR may be designated as a conduct review officer. The conduct review officer(s) shall preside over brief hearings, council hearings, and full conduct ((review proceedings)) hearings under this chapter((-For sexual misconduct cases where the possible sanction may be suspension, expulsion, or involve felony-level sexual misconduct, the CRO also acts as the decision maker as set forth in WAC 172-121-123)) and shall serve as the decision maker in such cases unless a brief hearing is held before the student disciplinary council.

As the presiding officer, in full hearings the conduct review officer has authority to:

- (a) Determine the order of presentation of evidence;
- (b) Administer oaths and affirmations;
- (c) Issue subpoenas pursuant to RCW 34.05.446;
- (d) Rule on procedural matters, objections, and motions;
- (e) Rule on motions for summary judgment;
- (f) Rule on offers of proof and receive relevant evidence;
- (g) Pursuant to RCW 34.05.449(5), close parts of a hearing to public observation or order the exclusion of witnesses upon a showing of good cause;
- (h) Question witnesses in an impartial manner to develop any facts deemed necessary to fairly and adequately decide the matter;
- (i) Call additional witnesses and request additional exhibits deemed necessary to complete the record and receive such evidence subject to ((full)) each party's opportunity for cross-examination and rebuttal ((by all parties));
- (j) Take official notice of facts pursuant to RCW 34.05.452(5);
- (k) Regulate the course of the hearing and take any appropriate action necessary to maintain order during the hearing;
- (l) Permit or require oral argument or briefs and determine the time limits for submission thereof;
- (m) Issue an order of default;
- (n) Hold prehearing conferences; and
- (o) Take any other action necessary and authorized by any applicable statute or rule.

(3) Student disciplinary council: ((The student disciplinary council hears cases of student conduct code violations that do not involve sexual misconduct as described in WAC 172-121-120.)) All brief hearings are scheduled with a conduct review officer unless one of the parties requests a brief hearing before the student disciplinary council. The council also serves as an appeal authority under WAC 172-121-130.

(a) Council pool: For each academic year, a pool of council members shall be established. All members of the council pool are appointed by the ((university president)) vice president for student affairs. Appointment of council pool members is as follows:

- (i) Faculty and staff members are appointed for three-year terms. Student members are appointed for one-year terms;

(ii) Council chair: The director of SRR, or designee, shall serve as chair of council proceedings but will not have the right to vote, except in the case of a tie;

(iii) Vacancies: Council pool vacancies shall be filled as needed through ~~((presidential))~~ appointment by the vice president for student affairs.

(b) Session council: When a student disciplinary council is needed for a brief hearing or an appeal, the director of SRR shall select available members from the council pool to serve as the session council. Each session council must include a quorum. A quorum is three voting members, which must include at least one student ~~((and)),~~ one faculty/staff member, and one other member who could be a student or faculty/staff member.

AMENDATORY SECTION (Amending WSR 17-17-031, filed 8/9/17, effective 9/9/17)

**WAC 172-121-075 Conflicts of interest.** (1) Individuals who play a role in receiving, investigating, ~~((and otherwise processing complaints))~~ advising, presiding over, and making decisions pertaining to individual student conduct cases shall not have any conflict of interest in the process. A conflict of interest exists if the investigator, advisor, presiding officer or decision maker is the respondent, complainant, or a witness; if the respondent, complainant, or witness is a family member or friend; if the individual has a personal interest or bias; or if the individual has previously served in an advisory capacity for any of the parties or witnesses. In the event such a conflict arises in the process, the person shall disclose such interest to the parties. Parties to the complaint who believe a university official involved in the process has a conflict of interest may report such concerns to the director of SRR or the dean of students. The director or dean shall determine whether a conflict of interest exists and take appropriate action.

(2) ~~((Anyone who serves as an investigator or advocate, or someone who is subject to the authority, direction, or discretion of such a person, may not serve as the conduct review officer for a full adjudicative hearing.~~

~~((3))~~ Challenges to council membership. Members of the student disciplinary council and the conduct review officer ~~((shall not participate in any case in which they are the respondent, the complainant, a victim, or a witness; in which the respondent, complainant, victim, or a witness is a family member or friend; in which they have a personal interest or bias; or in which they have acted previously in an investigatory, advisory, or adjudicatory capacity))~~ are subject to the conflict of interest limitations set forth in subsection (1) of this section.

(a) If a member has such a conflict, the person shall recuse him/herself from further involvement in the case. In the event such a conflict arises after the council has been selected or during a proceeding, the member shall disclose the conflict to the parties.

(b) A member's or the conduct review officer's eligibility to participate in a case may be challenged by parties to the case or by other council members at any time by submitting a motion to disqualify to the conduct review officer. When such a challenge is made, the session council, excluding the

person alleged to have a conflict of interest, shall make a decision on the challenge.

(c) If a member is disqualified or disqualifies him/herself from a case, the director of SRR will appoint a replacement.

AMENDATORY SECTION (Amending WSR 17-17-031, filed 8/9/17, effective 9/9/17)

**WAC 172-121-080 Administration and records.** (1) Student conduct code.

(a) Interpretation: Any questions regarding the interpretation or application of this student conduct code are referred to the vice president for student affairs for final determination.

(b) Review: This student conduct code shall be reviewed at least every three years under the direction of the vice president for student affairs.

(2) Records of conduct review proceedings.

(a) Records of conduct review proceedings under this chapter shall be prepared by the conduct review official(s) involved and maintained by the director of SRR. As much as possible, records should include:

(i) A summary of the proceedings during a ~~((preliminary))~~ prehearing conference;

(ii) An audio recording of conduct review hearings;

(iii) All letters, statements, memoranda, decisions, orders, notices, and other documents related to conduct review proceedings;

(iv) Any images, articles, recordings, or other materials presented as evidence in a conduct review proceeding;

(v) A statement of matters officially noticed or considered by the council or conduct review officer;

(vi) Evidence submitted, whether or not accepted, any objections and rulings, any cross-examination questions submitted to the council and rulings on such questions;

(vii) Proposed findings, requested orders, and exceptions;

(viii) Recording of the hearing and subsequent transcript, if any;

(ix) Any staff memorandum to the extent required by RCW 34.05.476; and

(x) Matters placed on the record after any ex parte communication. "Ex parte" means when a member of the student discipline council or conduct review officer communicates with a party about a nonprocedural matter regarding the hearing when the other party is not present.

(b) The director of SRR shall keep records of conduct review proceedings for seven years.

(c) Records of conduct review proceedings are the property of the university and are confidential to the extent provided in applicable law.

(d) Prior to the final disposition of a case, the respondent may review the records relative to their case. The respondent shall request to review the case records by contacting the conduct review officer. The conduct review officer shall make every reasonable effort to support the respondent's request.

(3) Student disciplinary records.

(a) Student disciplinary records are confidential and shall be treated consistently with the requirements of the Family Educational Rights and Privacy Act (FERPA) and

applicable law. Disciplinary records shall be maintained in accordance with the university's records retention schedule.

(b) Release of student disciplinary records. The university shall not communicate a student's disciplinary record to any person or agency outside the university without the prior written consent of the student, except as required or permitted by law. Exceptions include, but are not limited to:

(i) The student's parents or legal guardians may review these records as permitted by FERPA (20 U.S.C. Sec. 1232g; 34 C.F.R. Part 99).

(ii) Release to another educational institution, upon request, where the student seeks or intends to enroll, as allowed by FERPA (20 U.S.C. Sec. 1232g; 34 C.F.R. Part 99).

(iii) In response to a judicial order or a lawfully issued subpoena.

(iv) The university shall release information related to disciplinary records to complainants (~~(- victims,)~~) or other persons as required by Title IX of the Education Amendments of 1972, the Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act, and other state and federal laws.

(v) Disciplinary records will be made available to hearing councils and university personnel as needed for legitimate educational purposes.

(vi) A student may authorize release of their own disciplinary record to a third party in compliance with FERPA (20 U.S.C. Sec. 1232g; 34 C.F.R. Part 99) by providing a written consent to student rights and responsibilities.

(vii) Any student may review his/her own disciplinary records by contacting student rights and responsibilities.

(viii) A student may obtain a copy of their disciplinary record by making a written request to student rights and responsibilities. Student rights and responsibilities may charge the student a reasonable amount to cover copying expenses.

(ix) The university may disclose to a student's parents a violation of any federal, state, or local law, or of any university policy or rules regarding use or possession of alcohol or a controlled substance so long as the student is under the age of twenty-one at the time of the disclosure to the parent.

(c) When disciplinary records are released, personally identifiable information may be redacted to protect the privacy of others as permitted by law.

(4) Holds:

(a) Types of holds. Holds placed on a student's academic records may prevent admission, registration, graduation, or other academic activities. Holds may also restrict access to transcripts, grades, or other academic records.

(b) Discretionary holds: The conduct review officer may place a hold on a student's academic records in either of the following situations:

(i) Pending the student's satisfactory completion of any sanctions imposed by a conduct review hearing; or

(ii) If the student fails to respond to any properly delivered notice from the conduct review officer.

(c) Required holds: The conduct review officer shall place a hold on a student's academic record if the student is the respondent to a violation of the conduct code and has withdrawn from the university, or if the student withdraws

from the university after a complaint is filed against the student. A hold is also required if a student is subject to a pending student conduct complaint at the time of graduation. This hold shall remain in place until the allegation or complaint is resolved.

AMENDATORY SECTION (Amending WSR 17-17-031, filed 8/9/17, effective 9/9/17)

**WAC 172-121-100 Complaints.** (1) Filing of complaints.

(a) Any person may file a complaint against a student or student organization for violation of the student conduct code.

(b) A person wishing to file a complaint under the student conduct code must submit the complaint, in writing, to one of the following:

(i) Student rights and responsibilities; or

(ii) The office of the dean of students.

(c) Filing a complaint under the student conduct code does not prohibit or limit a person's right to file complaints or charges with other civil and/or criminal authorities for violations of local, county, state, or federal law.

(d) All student conduct code complaints will be forwarded to the director of SRR for further review and action.

(e) In cases where the university is acting as the complainant, an EWU employee shall initiate the complaint.

(2) Complaint review. Upon receipt of a complaint, the director of SRR shall review the complaint to determine whether it includes allegations of sexual misconduct and/or criminal conduct that will require special processing under subsection (3) of this section and whether appropriate law enforcement or other authorities should be notified. The director of SRR shall also review the complaint to determine whether the allegations may lead to a possible sanction of suspension, expulsion, or if the ~~((charges))~~ allegations rise to the level of a felony under Washington criminal law ~~((; all such cases are referred to a council hearing under WAC 172-121-122 or a sexual misconduct hearing under WAC 172-121-123)).~~ All allegations that may lead to a possible suspension, expulsion, or that rise to the level of felony sexual misconduct under Washington criminal law shall be referred for a university investigation and full hearing under WAC 172-121-122.

(3) Sexual misconduct ~~((hearings))~~ proceedings. Except where specifically stated, this section applies to all allegations the university receives of sexual misconduct ~~((- This section shall apply))~~ regardless of the possible level of sanction or where the alleged acts occurred.

(a) Report to Title IX coordinator. The director of SRR shall report all complaints which may constitute any form of sexual misconduct to the university Title IX coordinator within twenty-four hours.

(b) Prompt resolution. The university shall investigate any complaint alleging sexual misconduct when it is legally required to do so to determine if the university will pursue the incident under this student conduct code and/or refer the incident to other departments or agencies for further criminal, civil, or disciplinary action. All allegations of sexual misconduct shall be promptly investigated and resolved. ~~((For stu-~~

dent conduct cases, the university uses the hearing processes set forth in this code as the means of investigating a complaint.) In the absence of extenuating circumstances, the university will seek to have the allegations resolved within sixty days from the date it is notified of the allegation.

(c) Confidentiality. To facilitate the investigative process and protect the privacy of those involved, all information will be maintained in a confidential manner to the fullest extent permissible by law. During an investigation, complaint information will be disseminated on a need-to-know basis. If the complainant ((or victim)) wishes to remain anonymous, the university will take all reasonable steps to investigate the allegation without disclosing the name of the complainant to the extent allowed by state and federal law. If the complainant ((or victim)) wishes to remain anonymous, the university shall inform them that its ability to investigate and respond to the allegation will be limited. The university cannot ensure confidentiality, as its legal obligations under federal or state law may require investigation of the allegation and possible disclosure of the complainant's name. Reports of crimes to the campus community shall not include the names of the complainants ((or victims)). Files subject to public disclosure will be released to the extent required by law.

(d) Right to file a criminal report. Once the university is notified of an allegation of sexual misconduct, it will notify the potential ((victim)) complainant of their right to file a criminal complaint with campus or local law enforcement. If the ((victim)) complainant in such circumstances wishes to report the conduct to local law enforcement, the university will assist them in doing so. The university will also notify the ((victim)) complainant that he or she is not required to file a report with local law enforcement. The university will report allegations of sexual misconduct to law enforcement or other authorities consistent with federal, state, and local law.

(4) Interim measures. During the complaint review, the director of SRR, Title IX coordinator, or designee will evaluate the circumstances and recommend to the dean of students if any ((interim restriction action against the respondent is warranted or if any)) interim measures to assist or protect the ((complainant and/or victim)) parties during the conduct code process are needed. ((In cases of alleged sexual misconduct, the director of SRR shall, in conjunction with the dean of students and other appropriate university officials, take immediate steps to protect the complainant and/or victim from further harassment prior to completion of the investigation/resolution of the complaint. Appropriate steps may include separating the respondent and the complainant/victim.)) Interim measures may include, but are not limited to, safety planning with the EWU police department, no contact directives, academic or workplace modifications, providing counseling for the ((complainant/victim and/or harasser, and/or taking disciplinary action against the respondent.

(5) Inform complainant. As part of the complaint review process, the director of SRR will follow up with the)) complainant and/or respondent, campus housing modifications, and/or an interim restriction for the respondent. The purpose of an interim measure is to provide an equitable process for both students that minimizes the possibility of a hostile environment on campus. The procedures and basis for imposing

an interim restriction on the respondent is set forth in WAC 172-121-140.

(5) SRR will follow up with the parties as described below.

(a) For cases other than sexual misconduct, the director of SRR will contact the ((complainant)) parties and provide them with the following information:

(i) The ((complainant's)) parties' rights under the student conduct code;

(ii) A summary of the allegations ((which)) the complainant has against the respondent;

(iii) The potential conduct code violations related to the allegations; and

(iv) How to report any subsequent problems or retaliation, including intimidation, threats, coercion, or discrimination.

(b) In all cases alleging sexual misconduct, the director of SRR will, in addition to the information specified under (a) of this subsection, provide ((the complainant)) both parties with written information that will include, at a minimum:

(i) The student's rights and options, including options to avoid contact with the ((respondent)) other party; a list of available university and community resources for counseling, health, mental health, victim advocacy, legal assistance, visa and immigration assistance, student financial aid, and other academic and housing services at the university and in the community; and options for, available assistance in, and how to request changes to academic, living, transportation, and working situations or protective measures((-));

(ii) The importance of preserving evidence of the alleged incident and procedures to follow to preserve evidence of the alleged incident;

(iii) Who will receive a report of the allegation;

(iv) Their right to file or not file a criminal complaint as detailed above and the ability to be assisted by campus authorities in notifying law enforcement authorities if the complainant wishes to do so;

(v) A list of resources for obtaining protective, no contact, restraining, or similar orders, if applicable;

(vi) The procedures the university will follow when determining if discipline is appropriate;

(vii) Steps the university will take to ensure confidentiality of complainants and other necessary parties and the limits this may place on the university's ability to investigate and respond, as set forth above; and

(viii) Information regarding the university's policy against retaliation, steps the university will take to prevent and respond to any retaliation, and how the student should report retaliation or new incidents.

(6) Following the complaint review, the director of SRR will either dismiss the matter or arrange a preliminary conference.

(a) Dismiss the matter. If the director of SRR determines the allegations, even if true, would not rise to the level of a conduct violation, he/she may dismiss the matter. In such cases, the director of SRR will prepare a written record of the dismissal. The director of SRR will also notify the complainant of their decision, if such notification is permissible under FERPA. The dismissal letter, along with the original complaint and any other related documents, will be main-

tained as described in WAC 172-121-080. In cases of sexual misconduct, the ~~((complainant/victim))~~ complainant may request a review of the dismissal by the dean of students by filing a request for review with the director of SRR within ten days of receiving notice of the dismissal.

(b) Preliminary conference. If the director of SRR does not dismiss the matter he/she will arrange a preliminary conference as described in WAC 172-121-110.

AMENDATORY SECTION (Amending WSR 17-17-031, filed 8/9/17, effective 9/9/17)

**WAC 172-121-105 Conduct review proceedings.** (1)

General provisions:

(a) Conduct review proceedings in which the potential sanction is less than suspension, expulsion, or do not involve allegations of felony level sexual misconduct are ~~((summary hearings and considered brief adjudicative proceedings))~~ brief hearings in accordance with WAC ~~((172-108-010))~~ 172-108-050(3), and shall be conducted in an informal manner. Conduct review proceedings in which the potential sanction is suspension, expulsion, or that involve allegations of felony level sexual misconduct ~~((are council hearings or sexual misconduct hearings under this code and))~~ are considered full ~~((adjudicative proceedings))~~ hearings under the Administrative Procedure Act.

(b) Nonjudicial proceedings: Formal rules of process, procedure, and/or technical rules, such as are applied in criminal or civil courts, do not apply in student conduct code proceedings.

(2) Notification for student organizations: When a charge is directed towards a student organization, the conduct review officer will communicate all matters relative to conduct review proceedings with the president of the organization or their designee.

(3) Advisors: The complainant~~((, victim,))~~ and the respondent may be assisted by one advisor of their choice, subject to the following provisions:

(a) Any fees or expenses associated with the services of an advisor are the responsibility of the complainant~~((, victim,))~~ or the respondent that employed the advisor;

(b) The advisor may be an attorney or any other person of the student's choosing;

(c) The advisor must provide the conduct review officer with a FERPA release signed by the student they are assisting;

(d) If a complainant~~((, victim,))~~ or the respondent is represented by an attorney, the attorney shall provide the conduct review officer and other parties with the attorney's name, address, telephone number, and email address. The attorney must file a notice of appearance when hired to represent a person and a notice of withdrawal upon withdrawal of representation. A notice of appearance must be filed at least two business days prior to any conduct review proceeding.

(4) Review of evidence:

(a) In ~~((summary))~~ brief hearings, the respondent, and, in cases of sexual misconduct, the ~~((complainant/victim))~~ complainant may request to view material related to their case prior to a scheduled hearing by contacting the conduct review officer. To facilitate this process, the party should contact the

conduct review officer as early as possible prior to the scheduled hearing. The conduct review officer shall make a reasonable effort to support the request to the extent allowable by state and federal law.

(b) In council hearings, the parties may request to view material related to the case prior to the scheduled hearing by contacting the conduct review officer. To facilitate this process, the party should contact the conduct review officer as early as possible prior to the scheduled hearing. The conduct review officer shall make a reasonable effort to support the request to the extent allowable by state and federal law.

(5) Continuances: Continuances, extensions of time, and adjournments may be ordered by the conduct review officer. A party may file a timely request for a continuance if the party shows good cause for the continuance. A request for a continuance may be oral or written. Before granting a motion for a continuance, the conduct review officer shall allow any other party to object to the request. The conduct review officer will make a decision on the request and will communicate his/her decision in writing to the parties along with the reasons for granting or denying the request.

AMENDATORY SECTION (Amending WSR 17-17-031, filed 8/9/17, effective 9/9/17)

**WAC 172-121-110 ~~((Preliminary conference.))~~ Notice of allegations and initial scheduling.** (1) Scheduling.

If, after reviewing a complaint, the director of SRR decides to initiate conduct review proceedings, the director shall, within ten business days of receiving the initial complaint, appoint a conduct review officer (CRO) to the case and notify the respondent. In cases alleging sexual misconduct, the CRO assigned must have completed training on issues relating to sexual misconduct, the Violence Against Women Reauthorization Act, and Title IX requirements. Notification of the ~~((charges))~~ allegations to the respondent must:

(a) Be made in writing;

(b) Include a written list of ~~((charges))~~ the allegations against the respondent; and

(c) Include the name of the conduct review officer assigned to the case and the deadline for the respondent to contact the CRO in order to schedule a preliminary conference. Whenever possible, the deadline for the respondent to contact the CRO will be within five business days of the date the director of SRR sent notification to the respondent.

(2) Failure to respond: If the respondent fails to respond to the notice of ~~((charges))~~ allegations, the director of SRR shall schedule the preliminary conference and notify the respondent. The notification shall be in writing and shall include a date, time, and location of the preliminary conference.

(3) Follow up with ~~((complainant/victim))~~ complainant. In all cases alleging sexual misconduct or if there will be a ~~((council))~~ full hearing, the ~~((CRO))~~ SRR office shall notify the complainant(s) of the date, time, and location of the preliminary conference and of their right to attend the conference. The ~~((CRO))~~ SRR office shall also follow up with the complainant(s)/respondent(s) to inform them of the process of reporting any retaliation or new incidents. If the ~~((complainant/victim))~~ complainant has experienced any type of

retaliatory behavior, the university shall take immediate steps to protect the ~~((complainant/victim))~~ complainant from further harassment or retaliation.

~~(4) ((Appearance:~~

~~(a) For summary hearings only the respondent and the respondent's advisor may appear at the preliminary conference, unless the case involves alleged sexual misconduct. In cases alleging sexual misconduct, the respondent and the complainant/victim, along with their advisors, if they choose to have an advisor, may appear at the preliminary conference.~~

~~(b) For council hearings and sexual misconduct hearings, both parties and their advisors may appear at the preliminary conference.~~

~~(5) Failure to appear. In cases where proper notice has been given but the respondent fails to attend the preliminary conference, the CRO may:~~

~~(a) Proceed with a hearing and decide the case based on the information available; or~~

~~(b) Place a hold on the respondent's academic records as described in WAC 172-121-080.~~

~~(6) Preliminary conference. The purpose of the preliminary conference is to advise the parties regarding the student conduct process. If both of the parties are not present, the CRO will refrain from discussing any nonprocedural matters. During the preliminary conference, the conduct review officer will:~~

~~(a) Review the written list of charges with the respondent;~~

~~(b) Inform the respondent who is bringing the complaint against them;~~

~~(c) Provide the respondent with a copy of the student conduct code and any other relevant university policies;~~

~~(d) Explain the respondent's rights under the student code;~~

~~(e) Explain the conduct review procedures;~~

~~(f) Explain the respondent's and complainant's rights and responsibilities in the conduct review process; and~~

~~(g) Explain possible penalties under the student conduct code.~~

~~(7) After the preliminary conference, the conduct review officer will take one of the following actions:~~

~~(a) Conduct or schedule a summary hearing with the respondent as described in WAC 172-121-121 for cases where the possible sanction is less than a suspension or the allegations do not involve felony level sexual misconduct; or~~

~~(b) Refer the case to either the student disciplinary council for a council hearing under WAC 172-121-122 or a sexual misconduct hearing under WAC 172-121-123 for any cases where the possible sanction is a suspension, expulsion, or involves an allegation of felony level sexual misconduct.))~~  
The procedures for the preliminary conference for brief hearings is contained in WAC 172-121-121. The procedures for the preliminary and prehearing conference for full hearings is contained in WAC 172-121-122.

AMENDATORY SECTION (Amending WSR 17-17-031, filed 8/9/17, effective 9/9/17)

**WAC 172-121-120 Hearing procedures.** The provisions of this section apply to both ~~((summary))~~ brief hearings and to ~~((council))~~ full hearings.

(1) General provisions.

(a) Hearing authority: The hearing authority, through the conduct review officers, exercises control over hearing proceedings. All procedural questions are subject to the final decision of the conduct review officer.

(b) Closed hearings: All conduct review hearings will be closed. Admission of any person to a conduct review hearing shall be at the discretion of the hearing authority.

(c) Consolidation of hearings: In the event that one or more students are charged with the same misconduct arising from the same occurrence, the hearing authority may conduct separate hearings for each student or consolidate the hearings as practical, as long as consolidation does not impinge on the rights of any student.

(2) Appearance.

(a) Failure to appear: In cases where proper notice has been given but the respondent fails to attend a conduct review hearing, the hearing authority shall decide the case based on the information available, without the respondent's input.

(b) ~~((Complainant's))~~ Appearance: The ~~((complainant))~~ parties will be provided options for reasonable alternative arrangements if they do not wish to be present in the same room as the ~~((respondent))~~ other student during the hearing. The ~~((complainant))~~ parties may appear at the conduct review hearing in person, through telephone conference, or through any other practical means of communication, subject to the limits set forth below in (c) of this subsection. If a party does not appear at the hearing, the hearing authority will decide the case based on the information available.

(c) Advisors: The complainant and the respondent may be assisted by one advisor during conduct review hearings as described in WAC 172-121-105.

(d) Disruption of proceedings: Any person, including the respondent, who disrupts a hearing, may be excluded from the proceedings.

(e) Telephonic appearance. In the interest of fairness and expedience, the conduct review officer may permit any person to appear by telephone, audio tape, written statement, or other means, as appropriate, if the rights of the parties will not be substantially prejudiced by a telephonic appearance as determined by the conduct review officer.

(3) Standard of proof. The hearing authority shall determine whether the respondent violated the student conduct code, as charged, based on a preponderance of the evidence. A preponderance means, based on the evidence admitted, whether it is more probable than not that the respondent violated the student conduct code.

(4) Sanctions. In determining what sanctions shall be imposed, the hearing authority may consider the evidence presented at the hearing as well as any information contained in the student's disciplinary and academic records. If a student fails to appear for a hearing, then the hearings authority shall review the evidence provided and may consider information available from the student's disciplinary and aca-

demographic records in determining what sanction should be imposed.

AMENDATORY SECTION (Amending WSR 17-17-031, filed 8/9/17, effective 9/9/17)

**WAC 172-121-121 ((Summary)) Brief hearings.**  
 ((Summary)) Brief hearing procedures.

(1) The conduct review officer (CRO) may hold a ((summary)) brief hearing with the respondent if the proposed sanction is less than a suspension and the allegations do not involve felony level sexual misconduct. A respondent shall be informed of the option to have a brief hearing before a CRO or before the student discipline council. Unless the respondent affirmatively requests a council hearing, brief hearings shall be conducted with a conduct review officer.

(2) Preliminary conference. The SRR office will schedule a preliminary conference with the respondent. Only the respondent and the respondent's advisor may appear at the preliminary conference, unless the case involves alleged sexual misconduct. In cases alleging sexual misconduct, the respondent and the complainant, along with their advisors, if they choose to have an advisor, may appear at the same or separate preliminary conferences. The purpose of the preliminary conference is to advise the parties regarding the student conduct process. During the preliminary conference, the conduct review officer will:

(a) Review the written list of allegations with the respondent;

(b) Inform the respondent who is bringing the complaint against them;

(c) Provide the respondent with a copy of the student conduct code and any other relevant university policies;

(d) Explain the respondent's rights under the student code;

(e) Explain the conduct review procedures;

(f) Explain the respondent's and complainant's rights and responsibilities in the conduct review process; and

(g) Explain possible penalties under the student conduct code.

At the end of the preliminary conference, the conduct review officer will either conduct or schedule a brief hearing with the respondent as set forth in this subsection. If proper notice was given of the preliminary conference and the respondent fails to attend the conference, the CRO may either proceed with the brief hearing and decide the case based on the information available, or place a hold on the respondent's academic records as described in WAC 172-121-080 until the respondent cooperates with the student conduct process.

((2)) (3) Scheduling. A ((summary)) brief hearing may take place immediately following the preliminary conference or it may be scheduled for a later date or time, except that, in cases of sexual misconduct, a ((summary)) brief hearing cannot take place without first notifying the complainant/respondent of the hearing. If the ((summary)) brief hearing will be held at a later date or time, the ((conduct review officer)) CRO shall schedule the hearing and notify the respondent and, in the case of sexual misconduct, the complainant of the date, time, and place of the hearing. The ((conduct review

officer)) CRO may coordinate with the parties to facilitate scheduling, but is not required to do so.

((3)) (4) If the respondent fails to appear at the ((summary)) brief hearing, the ((conduct review officer)) CRO may conduct the ((summary)) hearing without the respondent present ((or refer the case to the student disciplinary council for a council hearing under WAC 172-121-110)). The ((conduct review officer)) CRO may also place a hold on the respondent's academic records under WAC 172-121-080 until the respondent cooperates with the student conduct process.

((4)) (5) Deliberation. After the hearing, the ((conduct review officer)) CRO and/or council shall decide whether the respondent violated the student conduct code based on a preponderance of the evidence. For council hearings, the council shall meet in closed session and, within seven days, determine by majority vote whether the respondent violated the student conduct code.

(a) If the ((conduct review officer)) CRO and/or council determines that there is not sufficient information to establish a violation by a preponderance of evidence, the ((conduct review officer)) CRO and/or council shall dismiss the complaint.

(b) If the ((conduct review officer)) CRO and/or council determines that the respondent violated the student conduct code, the ((conduct review officer)) CRO and/or council shall impose any number of sanctions as described in WAC 172-121-210, except suspension or expulsion.

((5)) (6) Notification. The ((conduct review officer)) CRO, and/or the presiding officer in cases of a council hearing, shall serve the respondent with a ((brief written statement setting forth the outcome of the summary hearing and notice of the)) decision including its findings, conclusions, and rationale. The decision shall address credibility issues if credibility or witness demeanor was a substantial factor in the council's/CRO's decision. The findings shall be based exclusively on the evidence provided at the hearing. The decision must also identify the respondent's right to appeal.

In ((a)) cases of sexual misconduct, the ((victim)) complainant shall be provided with written notice of:

(a) The university's determination as to whether such sexual misconduct occurred;

(b) The ((victim's)) complainant's right to appeal;

(c) Any change to the results that occurs prior to the time that such results become final; and when such results become final (20 U.S.C. 1092(f)).

Information regarding the discipline of the respondent will not be released unless:

(i) The information contained in the record directly relates to the complainant, such as an order requiring the respondent to not contact the complainant; or

(ii) The misconduct involves a crime of violence or a sexual assault, including rape, ((relationship)) dating violence, domestic violence or stalking as defined in 42 U.S.C. Sec. 13925(a).

AMENDATORY SECTION (Amending WSR 17-17-031, filed 8/9/17, effective 9/9/17)

**WAC 172-121-122 ((Council)) Full hearing procedures.** (1) Scheduling and notification. ~~((Council))~~ Full hearings are used for allegations ((other than sexual misconduct)) which, if substantiated by a preponderance of the evidence, could result in a sanction of suspension or expulsion((-If the conduct review officer has decided to refer the case to the student disciplinary council for a council hearing, the director of SRR)) or that involve felony-level sexual misconduct. Following provision of the notice of allegations to the respondent, as set forth in WAC 172-121-110, the SRR office shall arrange for a preliminary conference.

(2) Preliminary conference. The SRR office or designee will arrange for a preliminary conference with each of the parties separately to advise them about the student conduct process. During the preliminary conference, the SRR office or designee will:

(a) Review the written list of allegations with the respondent;

(b) Inform the respondent who is bringing the complaint against them;

(c) Provide the respondent with a copy of the student conduct code and any other relevant university policies;

(d) Explain the respondent's rights under the student code;

(e) Explain the conduct review procedures;

(f) Explain the respondent's and complainant's rights and responsibilities in the conduct review process; and

(g) Explain possible penalties under the student conduct code.

(3) Prehearing conference. Following the preliminary conference, the case will be referred to the CRO and the CRO will arrange for a prehearing conference with the parties. The purpose of the prehearing conference is for the CRO to explain what will occur for during the full hearing process, to schedule a date for the full hearing, and to address any preliminary matters or motions. Following the prehearing conference, the CRO shall schedule the hearing and notify the respondent with the date, time, and location of the hearing. The director of SRR shall also ((inform the council and)) notify the ((complainant/victim)) complainant of the date, time, and location of the hearing in writing as well as any other details required by RCW 34.05.434. The notice will include information about how to request accommodations or interpreters for any parties or witnesses. The notice of hearing must be served on the respondent and complainant at least seven business days prior to the hearing. The ((conduct review officer)) CRO may coordinate with the parties to facilitate scheduling, but is not required to do so.

~~((2))~~ (4) Evidence.

(a) Evidence: Pertinent records, exhibits and written statements may be accepted as information for consideration by the conduct review officer in accordance with RCW 34.05.452. Any investigation conducted by the university will be admitted into evidence. Evidence, including hearsay evidence, is admissible if in the judgment of the conduct review officer it is the kind of evidence on which reasonably prudent persons are accustomed to rely in the conduct of their affairs. The conduct review officer shall exclude evidence

that is excludable on constitutional or statutory grounds or on the basis of evidentiary privilege recognized by Washington courts. The conduct review officer may exclude incompetent, irrelevant, immaterial or unduly repetitious material. If not inconsistent with this section, the conduct review officer shall refer to the Washington rules of evidence as guidelines for evidentiary rulings.

(b) The respondent ((has)) and complainant have the right to view all material presented during the course of the hearing, except a respondent's previous disciplinary history which shall be used solely for the purpose of determining the appropriate sanction.

(c) All testimony of parties and witnesses shall be made under oath or affirmation. Any interpreter shall be proscribed the oath set forth in WAC 10-08-160.

(d) Documentary evidence may be received in the form of copies or excerpts, or by incorporation by reference.

(e) Official notice may be taken of (i) any easily verifiable facts such as dates or weather conditions, (ii) technical or scientific facts within EWU's specialized knowledge, such as enrollment status or class schedules, and (iii) codes or standards that have been adopted by an agency of the United States, of this state or of another state, or by a nationally recognized organization or association. Parties shall be notified either before or during hearing, or by reference in preliminary reports or otherwise, of the material so noticed and the sources thereof, including any staff memoranda and data, and they shall be afforded an opportunity to contest the facts and material so noticed. A party proposing that official notice be taken may be required to produce a copy of the material to be noticed.

(f) All rulings upon objections to the admissibility of evidence shall be made in accordance with the provisions of RCW 34.05.452.

~~((3))~~ (5) Discovery. Discovery is not permitted under the code, except for requests for documentary information from the university. Either party may request the university to produce relevant documents as long as such request is submitted at least five days prior to the hearing, absent extenuating circumstances. If the CRO determines the request is not relevant to the present allegation, the CRO may deny the request. The university will provide the requested information prior to the hearing to the extent permitted by state and federal law.

~~((4))~~ (6) Subpoenas.

(a) Subpoenas shall be issued and enforced, and witness fees paid, as provided in RCW 34.05.446 and 5.56.010.

(b) Every subpoena shall identify the party causing issuance of the subpoena and shall state EWU's name and the title of the proceeding and shall command the person to whom it is directed to attend and give testimony or produce designated books, documents, or things under his or her control.

(i) A subpoena to a person to provide testimony at a hearing shall specify the time and place set for hearing.

(ii) A subpoena duces tecum requesting a person to produce designated books, documents, or things under his or her control shall specify a time and place for producing the books, documents, or things. That time and place may be the time and place set for the hearing, or another reasonably convenient time and place in advance of the hearing.

(c) A subpoena may be served by any suitable person over eighteen years of age, by exhibiting and reading it to the witness, or by giving him or her a copy thereof, or by leaving such copy at the place of his or her abode. When service is made by any other person than an officer authorized to serve process, proof of service shall be made by affidavit or declaration under penalty of perjury.

(d) The ~~((conduct review officer))~~ CRO, upon motion made promptly and in any event at or before the time specified in the subpoena for compliance therewith, may (i) quash or modify the subpoena if it is unreasonable and oppressive or (ii) condition denial of the motion upon advancement by the person in whose behalf the subpoena is issued of the reasonable cost of producing the books, papers, documents, or tangible things.

~~((5))~~ (7) Summary judgment. A motion for summary judgment may be granted and an order issued if the written record shows that there is no genuine issue as to any material fact and that the moving party is entitled to judgment as a matter of law.

~~((6))~~ (8) Witnesses.

(a) The complainant, ~~((victim,))~~ respondent, investigator, and ~~((hearing authority))~~ CRO may present witnesses at ~~((council review))~~ full hearings.

(b) The party who wishes to call a witness is responsible for ensuring that the witness is available and present at the time of the hearing. ~~((For purposes of a council hearing,))~~ An attorney may subpoena a witness to appear at the hearing. Nonattorneys may request the CRO to subpoena witnesses in accordance with subsection (4) of this section. The CRO has the discretion to deny a request to issue a subpoena or to quash a subpoena issued by an attorney if the subpoena is unreasonable and oppressive.

(c) The ~~((hearing authority))~~ CRO may exclude witnesses from the hearing room when they are not testifying. The ~~((hearing authority))~~ CRO is not required to take the testimony of all witnesses called by the parties if such testimony may be inappropriate, irrelevant, immaterial, or unduly repetitious.

(d) All parties have the right to hear all testimony provided by witnesses during the hearing.

(e) The parties should inform the CRO of any possible need for an interpreter or any accommodation requests at least five days prior to the hearing. The CRO will comply with WAC 10-08-150.

~~((7))~~ (9) Questioning:

(a) The complainant, the respondent, and their advisors may ask questions of each other or of any witnesses, except cross-examination questions for another party must be submitted in writing to the CRO. The CRO may ask such questions, but is not required to do so. The CRO may preclude any questions which he/she considers inappropriate, irrelevant, immaterial or unduly repetitious or may require that all questions be submitted to the CRO rather than allowing the parties to directly question witnesses. The CRO will explain to the parties the reason for rejecting any questions and will maintain a record of the questions submitted and rulings made.

(b) The CRO ~~((and any members of the council))~~ may ask their own questions of any witness called before them.

~~((8))~~ (10) The ~~((hearing authority))~~ CRO may accommodate concerns for personal safety, well-being, or fears of confrontation of any person appearing at the hearing by providing separate facilities, or by permitting participation by telephone, audio tape, ~~((written statement))~~ video conferencing, or other means, as determined appropriate, subject to subsection (2) of this section.

~~((9))~~ (11) Deliberations and sanctions. Following the hearing, the ~~((council shall meet in closed session and, within seven days, determine by majority vote))~~ CRO will determine whether, by a preponderance of the evidence, the respondent violated the student conduct code. If the ~~((council))~~ CRO determines the respondent violated the student conduct code, the ~~((council))~~ CRO shall then decide what sanctions shall be imposed. ~~((Sanctions shall be decided by majority vote and in closed session.))~~ The CRO may review the respondent's previous disciplinary history for purposes of determining the appropriate sanction. The ~~((council))~~ CRO's shall issue a decision including ~~((its))~~ his/her findings, conclusions, and rationale. The decision shall address credibility issues if credibility or witness demeanor was a substantial factor in the ~~((council's))~~ CRO's decision. The findings shall be based exclusively on the evidence provided at the hearing. Such decisions should be issued within seven business days from the date of the hearing. The written decision shall also:

(a) Be correctly captioned identifying EWU and the name of the proceeding;

(b) Designate all parties and representatives participating in the proceeding;

(c) Contain appropriate numbered findings of fact meeting the requirements in RCW 34.05.461;

(d) Contain appropriate numbered conclusions of law, including citations of statutes and rules relied upon;

(e) Contain an initial or final order disposing of all contested issues;

(f) Contain a statement describing the available post-hearing remedies.

~~((10))~~ (12) Notification~~((The council chair shall forward the council decision to the director of SRR))~~ to the respondent. The director of SRR shall serve the respondent with a ~~((brief written statement setting forth the council's))~~ copy of the decision and notice of the right to appeal.

(13) Notification to the complainant. In cases of sexual misconduct, the complainant shall be provided with written notice of:

(a) The university's determination as to whether sexual misconduct occurred;

(b) The complainant's right to appeal;

(c) Any change to the results that occurs prior to the time that such results become final and when such results become final (20 U.S.C. 1092(f));

(d) Information regarding the discipline of the respondent will not be released unless:

~~((a))~~ (i) The information contained in the record directly relates to the complainant, such as an order requiring the student harasser to not contact the complainant; or

~~((b))~~ (ii) The misconduct involves a crime of violence or a sexual assault, including rape, relationship violence, domestic violence or stalking as defined in 42 U.S.C. Sec. 13925(a).

AMENDATORY SECTION (Amending WSR 17-17-031, filed 8/9/17, effective 9/9/17)

**WAC 172-121-130 Appeals.** (1) Basis: Appeals may be filed by the respondent or the complainant. ~~((In cases of sexual misconduct, the victim may also file an appeal.))~~ Appeals may be filed for one or more of the following reasons:

(a) To determine whether the hearing was conducted according to established procedures. A hearing may have deviated from established procedures if:

(i) The hearing was not conducted fairly in light of the ~~((charges))~~ notice of allegations and information presented;

(ii) The complainant was not given a reasonable opportunity to prepare and to present information as provided by the student conduct code;

(iii) The respondent was not given a reasonable opportunity to prepare and to present a response as provided by the student conduct code.

(b) The hearing authority misinterpreted the student conduct code.

(c) To determine whether the decision reached by the hearing authority was based on the information presented and that information was sufficient to reasonably establish that a violation of the conduct code did or did not occur based on a preponderance of the evidence.

(d) To determine whether the sanction(s) imposed were reasonable and appropriate for the associated conduct code violation(s).

(e) To consider newly discovered, material information which was not known to the appellant and could not reasonably have been discovered and presented by the appellant at the original hearing. It is the party's obligation to present all evidence at the time of the original hearing. The university is not obligated to grant an appeal and conduct a new hearing when parties do not take reasonable efforts to prepare their cases for the original hearing.

(2) Filing: Appeals may be filed following a ~~((summary))~~ brief hearing ~~((, conduct review hearing or sexual misconduct))~~ or full hearing, subject to the following provisions:

(a) The appeal must be submitted to the director of student rights and responsibilities within ten calendar days from service of the ~~((council's))~~ CRO's decision following a ~~((council))~~ full hearing or ~~((the CRO's decision following a sexual misconduct hearing, and))~~ within twenty-one calendar days from service of a decision from a ~~((summary))~~ brief hearing ~~((, from service of the decision))~~ conducted by the CRO or student disciplinary council;

(b) The appeal shall be in writing and shall include:

(i) The appellant's name;

(ii) The nature of the decision and sanctions reached by the hearing official;

(iii) The basis, as described in subsection (1) of this section, for the appeal; and

(iv) What remedy the appellant is seeking.

(c) In cases of sexual misconduct, the other party must be given a copy of the appeal and provided with an opportunity to provide his/her own written response to the appeal within three business days.

(3) Appeal authorities:

(a) For ~~((summary))~~ brief hearings heard by the ~~((conduct review officer))~~ CRO, appeals are determined by the student disciplinary council.

(b) For ~~((student disciplinary council hearings))~~ brief hearings heard by the student disciplinary council, appeals are determined by the ~~((vice president for student affairs))~~ dean of students.

(c) For ~~((sexual misconduct))~~ full hearings, appeals are determined by the vice president for student affairs.

(4) Forwarding of appeals: The director of SRR shall forward the appeal to the appropriate appeal authority. The submitted appeal will include, at a minimum, the appellant's written appeal and the written report of the case. The director of SRR may also forward any other written records related to the case.

(5) Review of appeals:

(a) Before rendering a decision, the appeal authority may request additional information or explanation from any of the parties to the proceedings.

(b) Except as required to explain the basis of new information, an appeal shall be limited to a review of the verbatim record of the conduct review hearing and supporting documents.

(c) In making its decision, the appeal authority will only consider the written record before it, the appellant's notice of appeal, the other party's response, and other information and/or explanation it has requested from the parties to the proceedings.

(6) Decisions: After reviewing the appeal, the appeal authority may affirm, reverse, or remand the decision(s) of the hearing authority.

(7) Remanded cases: In cases where the appeal authority remands the decision or sanction(s) of the hearing authority, the case will be returned to the hearing authority for reconsideration or other action as specified by the appeal authority. Following such reconsideration, the hearing authority will return the case to the appeal authority for further review/action. The appeal authority will then complete the appeal process or remand the case again. No appeal may, however, be remanded more than two times. After a case has been remanded twice, the appeal authority must affirm or reverse the decision and affirm, reverse, or modify the sanctions.

(8) Sanctions: The appeal authority may affirm, reverse, remand, or modify the sanctions assigned to the respondent. When determining sanctions, the appeal authority may consider the complete record of the respondent's prior conduct and academic performance in addition to all other information associated with the case.

(9) Notification: Once the appeal authority has made a final decision to affirm or reverse and/or to modify the sanctions assigned, the appeal authority shall forward the decision to the director of SRR. The director of SRR shall serve the respondent, and, in cases of sexual misconduct, notify the complainant ~~((and victim))~~, with a brief written statement setting forth the outcome of the appeal. The notification shall also inform the recipient that judicial review of the decision may be available under chapter 34.05 RCW.

(10) Further proceedings. The appeal authority's decision is final and no further appeals may be made under the

student conduct code. Judicial review of the university's decision may be available under chapter 34.05 RCW.

(11) Appeals standards:

(a) Appeal authorities must weigh all pertinent information presented to them in determining whether sufficient evidence exists to support reversal or modification of decisions or sanctions.

(b) For appeals based on a deviation from established procedures, such deviations will not be a basis for sustaining an appeal unless the alleged deviation materially changed the outcome of the case or the sanctions imposed.

**AMENDATORY SECTION** (Amending WSR 17-17-031, filed 8/9/17, effective 9/9/17)

**WAC 172-121-140 Interim restriction.** In situations where there is cause to believe that a student or a student organization poses an immediate danger to the health, safety, or welfare of themselves, the university community, or property of the university community, the dean of students may take immediate action(s) against the student or student organization without prior notice or hearing.

Simultaneous with such action(s), the dean of students will refer the ~~((charges))~~ allegations to the conduct review officer, who will process such ~~((charges))~~ allegations in accordance with the provisions of this student conduct code.

Interim restriction is subject to the following:

(1) Interim restriction actions may only be imposed in the following situations:

(a) When a student or student organization poses an immediate threat to:

(i) The health, safety or welfare of any part of the university community or public at large;

(ii) The student's own physical safety and well-being; or

(iii) Any property of the university community; or

(b) When it is believed that the student's or student organization's continued attendance or presence may cause disorder, substantially interfere with or impede the lawful activities of others, or imperil the physical or mental health and safety of members of the university community.

(2) During the interim restriction period, a student may be restricted by any or all of the following means:

(a) Denial of access including, but not limited to: Assignment to alternate university housing or removal from university housing, limitation of access to university facilities, or restriction of communication with specific individuals or groups;

(b) Interim suspension, including temporary total removal from the university or restriction of access to campus;

(c) Mandatory medical/psychological assessment of the student's capability to remain in the university.

(3) The dean of students will determine what restriction(s) will be placed on a student.

(4) The dean of students will prepare a brief memorandum for record containing the reasons for the interim restriction. The dean of students will serve the memorandum on the restricted student and notify all other persons or offices bound by it. At a minimum, the memorandum will state:

(a) The alleged act(s) or behavior(s) of the student or student organization which prompted the interim restriction;

(b) How those alleged act(s) or behavior(s) constitute a violation of the student conduct code;

(c) How the circumstances of the case necessitated the interim restriction action(s); and

(d) The date, time, and location for an emergency appeal hearing with the vice president for student affairs.

(5) In cases alleging sexual misconduct, the complainant will be provided with notice of any interim restrictions that relate directly to the complainant.

(6) Emergency appeal hearing.

(a) If a student has been suspended on an interim basis, the student will automatically receive an emergency appeal hearing with the vice president for student affairs, or designee, within ten business days after the interim suspension is served. If the interim restriction is something less than a suspension, the student or student organization subject to the interim restriction must file a written appeal with the vice president for student affairs within ten business days after service of the interim restriction.

(b) The vice president for student affairs, or designee, will conduct an emergency appeals hearing with the student or student organization subject to the interim restriction. The student may appear at the hearing telephonically and may be represented by counsel.

(c) In cases alleging sexual misconduct, if an interim restriction is imposed, the student, the student organization, and the complainant may appeal the interim restriction using the process outlined in this subsection. Also, in such cases, if an appeal is filed, all parties shall be given notice of the appeal and shall be provided the opportunity to participate in the appeal proceeding.

(d) The vice president for student affairs may have the dean of students or any other person deemed relevant attend the meeting. The respondent and the complainant, if he/she has the right to be present under (b) of this subsection, may have an advisor present at the meeting.

(e) During the emergency appeal hearing, the vice president for student affairs will review available materials and statements. After the meeting, the vice president for student affairs may uphold, modify, or terminate the interim restriction action.

(f) The interim restriction does not replace the regular hearing process, which will proceed as quickly as feasible consistent with this chapter.

(g) Duration. An interim restriction will remain in effect until terminated, in writing, by the student disciplinary council, CRO, or the vice president for student affairs.

**AMENDATORY SECTION** (Amending WSR 17-17-031, filed 8/9/17, effective 9/9/17)

**WAC 172-121-200 Violations.** The following are defined as offenses which are subject to disciplinary action by the university.

(1) Acts of academic dishonesty. University policy regarding academic dishonesty is governed by the university academic integrity policy.

(2) Acts of social misconduct.

(a) Abuse. Physical abuse, verbal abuse, and/or other conduct which threatens or endangers the health or safety of any person.

(b) Bullying. Bullying is behavior that is:

(i) Intentional;

(ii) Targeted at an individual or group;

(iii) Repeated;

(iv) ~~((Objectively))~~ Hostile or offensive; and

(v) Creates an intimidating and/or threatening environment ~~((which produces a risk of psychological and/or physical harm))~~ that is so severe or pervasive, and objectively offensive, that it substantially interferes with another's ability to work, study, participate in, or benefit from the university's programs and activities.

(c) Domestic violence and ~~((relationship))~~ dating violence.

(i) Domestic violence means:

(A) Physical harm, bodily injury, assault, or the infliction of fear of imminent physical harm, bodily injury or assault, between family or household members;

(B) Sexual assault of one family or household member by another; or

(C) Stalking of one family or household member by another family or household member.

(ii) ~~((Relationship))~~ Dating violence is a type of domestic violence, except the acts specified above are committed by a person who is or has been in a social relationship of a romantic or intimate nature with the ~~((victim))~~ complainant. In determining whether such a relationship exists, the following factors are considered:

(A) The length of time the relationship has existed;

(B) The nature of the relationship; and

(C) The frequency of interaction between the parties involved in the relationship.

(d) ~~((Harassment, gender-based harassment, and sexual harassment.~~

~~((i))~~ Harassment is conduct by any means that is sufficiently severe, pervasive, or persistent, and objectively offensive so as to threaten an individual or limit the individual's ability to work, study, participate in, or benefit from the university's programs or activities. Harassment based on someone's actual or perceived membership in a protected class, as defined by university policy, is also discrimination.

~~((ii))~~ Gender-based harassment includes nonsexual acts of verbal, nonverbal, or physical aggression, intimidation, or hostility based on a person's gender or nonconformity with gender stereotypes. Gender-based harassment violates this code and Title IX when it is sufficiently severe, pervasive, or persistent such that it denies or limits another's ability to work, study, participate in, or benefit from the university's programs or activities.

~~((iii))~~ (e) Sexual and gender-based harassment. Sexual harassment is defined by the Office of Civil Rights as unwelcome conduct of a sexual nature and may include unwelcome sexual advances, requests for sexual favors, and other verbal, nonverbal, or physical conduct of a sexual nature. Sexual harassment violates this code ~~((and Title IX))~~ when it is sufficiently severe ~~((,))~~ or pervasive ~~((, or persistent))~~ such that it

denies or limits another's ability to work, study, participate in, or benefit from the university's programs or activities.

In determining whether ~~((any of the above listed types of harassment are))~~ conduct is severe ~~((,))~~ or pervasive ~~((, or persistent))~~, the university shall consider all relevant circumstances from both an objective and subjective perspective, including the type of harassment (verbal or physical); the frequency and severity of the conduct; the age, sex, and relationship of the individuals involved; the degree to which the conduct affected the ~~((victim))~~ complainant; the setting and context in which the harassment occurred; whether other incidents have occurred at the university; and other relevant factors.

~~((e))~~ Gender-based harassment includes nonsexual acts of verbal, nonverbal, or physical aggression, intimidation, or hostility based on a person's gender or nonconformity with gender stereotypes. Gender-based harassment violates this code when it is sufficiently severe or pervasive, such that it denies or limits another's ability to work, study, participate in, or benefit from the university's programs or activities.

~~((f))~~ Retaliation. Any actual or threatened retaliation or any act of intimidation intended to prevent or otherwise obstruct the reporting of a violation of this code is prohibited and is a separate violation of this code. Any actual or threatened retaliation or act of intimidation directed towards a person who participates in an investigation or disciplinary process under this code is prohibited and is a separate violation of this code.

~~((f))~~ (g) Sexual misconduct. Sexual misconduct includes, but is not limited to ~~((, sexual violence; indecent liberties; indecent exposure; sexual exhibitionism; sex-based cyber harassment; prostitution or the solicitation of a prostitute; peeping or other voyeurism; or going beyond the boundaries of consent, such as by allowing others to view consensual sex or the nonconsensual recording of sexual activity. Sexual violence is sexual intercourse or sexual contact with a person without his or her consent or when the person is incapable of giving))~~:

(i) Nonconsensual sexual activity. Nonconsensual sexual activity is sexual contact or sexual intercourse without consent. Sexual contact is intentional contact with a person's intimate body parts without their consent. Intimate body parts include, but are not limited to, breasts, genitalia, thighs, and buttocks. Nonconsensual sexual intercourse is penetration, no matter how slight, of the vagina, or anus, with any body part or object, without consent; or, oral penetration by a sex organ of another person without consent. Consent means actual words or conduct indicating freely given agreement to the sexual act. Consent cannot be inferred from silence, passivity, or lack of active resistance. There is no consent where there is a threat of force or violence or any other form of coercion or intimidation, physical or psychological. Sexual activity is nonconsensual when ~~((the victim))~~ one person is incapable of consent by reason of mental incapacity, drug/alcohol use, illness, unconsciousness, or physical condition. Incapacitation due to drugs or alcohol refers to an individual who is in a state of intoxication such that the individual is incapable of making rational, reasonable decisions because the person lacks the capacity to give knowing consent.

~~((g))~~ (ii) Other forms of sexual misconduct. Other forms of sexual misconduct include indecent liberties; indecent exposure; sexual exhibitionism; sex-based cyber harassment; prostitution or the solicitation of a prostitute; peeping or other voyeurism; or going beyond the boundaries of consent, such as by allowing others to view consensual sex or the nonconsensual recording of sexual activity.

(h) Stalking. Stalking is engaging in a course of conduct directed at a specific person that would cause a reasonable person to:

(i) Fear for their health and/or safety or the health/safety of others; or

(ii) Suffer substantial emotional distress.

~~((h))~~ (i) Unauthorized use of electronic or other devices: Making an audio or video recording of any person while on university premises without the person's prior knowledge or without their effective consent, when such a recording is of a private conversation or of images taken of a person(s) at a time and place where the person would reasonably expect privacy and where such recordings are likely to cause injury or distress. This includes, but is not limited to, surreptitiously taking pictures of another person in a gym, locker room, or restroom, but does not include taking pictures of persons in areas which are considered by the reasonable person to be open to public view.

(3) Property violations. Theft of, damage to, or misuse of another person's or entity's property.

(4) Weapons. Possession, carrying, discharge or other use of any weapon is prohibited on property owned or controlled by Eastern Washington University, except as permitted in (a) through (d) of this subsection. Examples of weapons under this section include, but are not limited to: Explosives, chemical weapons, shotguns, rifles, pistols, air guns, BB guns, pellet guns, longbows, hunting bows, throwing weapons, stun guns, electroshock weapons, and any item that can be used as an object of intimidation and/or threat, such as replica or look-a-like weapons.

(a) Commissioned law enforcement officers may carry weapons, which have been issued by their respective law enforcement agencies, while on campus or other university controlled property, including residence halls. Law enforcement officers must inform the university police of their presence on campus upon arrival.

(b) A person may possess a personal protection spray device, as authorized by RCW 9.91.160, while on property owned or controlled by Eastern Washington University.

(c) A person may bring a weapon onto campus for display or demonstration purposes directly related to a class or other educational activity, provided that they obtain prior authorization from the university police department. The university police department shall review any such request and may establish conditions to the authorization.

(d) Weapons that are owned by the institution for use in organized recreational activities or by special groups, such as EWU ROTC or university-sponsored clubs or teams, must be stored in a location approved by the university police department. These weapons must be checked out by the advisor or coach and are to be used only in organized recreational activities or by legitimate members of the club or team in the normal course of the club or team's related activity.

(5) Failure to comply.

(a) Failure to comply with lawful and/or reasonable directions of university officials or law enforcement officers acting in performance of their duties on campus or affecting conduct on campus;

(b) Failure to identify oneself to university officials in their course of duty, refusal or failure to appear before university officials or disciplinary bodies when directed to do so;

(c) Failure to attend any medical treatment or evaluation program when directed to do so by the dean of students or other authorized university official.

(6) Trespassing/unauthorized use of keys.

(a) Trespass. Entering or remaining on university property without authorization.

(b) Unauthorized use of keys. Unauthorized possession, duplication, or use of university keys or access cards.

(7) Deception, forgery, fraud, unauthorized representation.

(a) Knowingly furnishing false information to the university.

(b) Forgery, alteration, or misuse of university documents, records, or instruments of identification. This includes situations of identity theft where a person knowingly uses or transfers another person's identification for any purpose.

(c) Forgery or issuing a bad check with intent to defraud.

(d) Unauthorized representation. The unauthorized use of the name of the university or the names of members or organizations in the university community.

(8) Safety.

(a) Intentionally activating a false fire alarm.

(b) Making a bomb threat.

(c) Tampering with fire extinguishers, alarms, or safety equipment.

(d) Tampering with elevator controls and/or equipment.

(e) Failure to evacuate during a fire, fire drill, or false alarm.

(9) Alcohol, drugs, and controlled substances.

(a) Alcohol and substance violations. Use, possession, distribution, or sale of alcoholic beverages (except as permitted by university policy and state law) is prohibited. Under no circumstances may individuals under the age of twenty-one use, possess, distribute, manufacture or sell alcoholic beverages. Public intoxication is prohibited.

(b) Drugs and paraphernalia.

(i) Use, possession, distribution, manufacture, or sale of illegal drugs, paraphernalia, narcotics or controlled substances, is prohibited.

(ii) Use, possession, distribution, manufacture, or sale of marijuana is prohibited except for reasons permitted under EWU Policy 602-01 (drug and alcohol abuse prevention).

(iii) Being under the influence of marijuana or an illegal substance, while on property owned or operated by the university, is prohibited. Being under the influence of a controlled substance, except when legally prescribed by a licensed medical practitioner, is also prohibited while on property owned or operated by the university.

(10) Hazing. Any act which, for the purpose of initiation, admission into, affiliation with, or as a condition for continued membership in, a group or organization:

- (a) Endangers the mental or physical health or safety of any student or other person;
- (b) Destroys or removes public or private property; or
- (c) Compels an individual to participate in any activity which is illegal or contrary to university rules, regulations or policies.

The express or implied consent of any participant is not a defense. A person who is apathetic or acquiesces in the presence of hazing violates this rule.

(11) Disruptive conduct/obstruction.

(a) Disruptive conduct. Conduct which unreasonably interferes with any person's ability to work or study, or obstructs university operations or campus activities.

(b) Disorderly conduct. Conduct that is disorderly, lewd, indecent or a breach of peace.

(c) Obstruction. Obstruction of the free flow of pedestrian or vehicular traffic on university premises or at university-sponsored or university-supervised events.

(12) Violations of other laws, regulations and policies.

- (a) Violation of a local, county, state, or federal law.
- (b) Violation of other university policies, regulations, or handbook provisions.

(13) Assisting/attempts. Soliciting, aiding, abetting, concealing, or attempting conduct in violation of this code.

(14) Acts against the administration of this code.

(a) Initiation of a complaint or charge knowing that the charge was false or with reckless disregard of its truth.

(b) Interference with or attempt to interfere with the enforcement of this code(=) including, but not limited to, intimidation or bribery of hearing participants, acceptance of bribes, dishonesty, or disruption of proceedings and hearings held under this code.

(c) Knowing violation of the terms of any disciplinary sanction or attached conditions imposed in accordance with this code.

(15) Other responsibilities:

(a) Guests. A student, student group or student organization is responsible for the conduct of guests on or in university property and at functions sponsored by the university or sponsored by any recognized university organization.

(b) Students studying abroad. Students who participate in any university sponsored or sanctioned foreign country study program shall observe the following rules and regulations:

- (i) The laws of the host country;
- (ii) The academic and disciplinary regulations of the educational institution or residential housing program where the student is studying;
- (iii) Any other agreements related to the student's study program in the foreign country; and
- (iv) The student conduct code.

(16) Student organization and/or group offenses. Clubs, organizations, societies or similarly organized groups in or recognized by the university and/or ASEWU are subject to the same standards as are individuals in the university community. The commission of any of the offenses in this section by such groups or the knowing failure of any organized group

to exercise preventive measures relative to violations of the code by their members shall constitute a group offense.

### REPEALER

The following section of the Washington Administrative Code is repealed:

WAC 172-121-123 Sexual misconduct hearing procedures.

### **WSR 19-01-054**

#### **PERMANENT RULES**

#### **HEALTH CARE AUTHORITY**

(Employees and Retirees Benefits Division)

[Admin #2018-02—Filed December 14, 2018, 9:18 a.m., effective January 14, 2019]

Effective Date of Rule: Thirty-one days after filing.

Purpose: Making technical amendments to:

- Change references from medicare supplement coverage to medicare supplemental coverage.
- Revise several definitions in WAC 182-13-020.
- Align eligibility in WAC 182-13-030 with RCW 41.05-197.
- Clarify state residents can apply for medicare supplemental coverage thirty days before they are enrolled in Parts A and B of medicare.
- Allow residents to apply within sixty-three days instead of sixty days for coverage after becoming a new resident.
- Include guaranteed issue periods by cross-referencing RCW 48.66.045 and 48.66.055.

Citation of Rules Affected by this Order: Amending WAC 182-13-010, 182-13-020, 182-13-030, and 182-13-040.

Statutory Authority for Adoption: RCW 41.05.197, 41.05.160.

Adopted under notice filed as WSR 18-22-032 on October 29, 2018.

Number of Sections Adopted in Order to Comply with Federal Statute: New 0, Amended 0, Repealed 0; Federal Rules or Standards: New 0, Amended 0, Repealed 0; or Recently Enacted State Statutes: New 0, Amended 0, Repealed 0.

Number of Sections Adopted at the Request of a Non-governmental Entity: New 0, Amended 0, Repealed 0.

Number of Sections Adopted on the Agency's own Initiative: New 0, Amended 0, Repealed 0.

Number of Sections Adopted in Order to Clarify, Streamline, or Reform Agency Procedures: New 0, Amended 4, Repealed 0.

Number of Sections Adopted using Negotiated Rule Making: New 0, Amended 0, Repealed 0; Pilot Rule Making: New 0, Amended 0, Repealed 0; or Other Alternative Rule Making: New 0, Amended 4, Repealed 0.

Date Adopted: December 14, 2018.

Wendy Barcus  
Rules Coordinator

AMENDATORY SECTION (Amending WSR 95-07-011, filed 3/3/95, effective 4/3/95)

**WAC 182-13-010 Purpose.** The purpose of this chapter is to establish criteria for state residents for participation in medicare ~~((supplement))~~ supplemental coverage available through the HCA.

AMENDATORY SECTION (Amending WSR 95-07-011, filed 3/3/95, effective 4/3/95)

**WAC 182-13-020 Definitions.** Unless otherwise specifically provided, the definitions contained in this section apply throughout this chapter.

(1) "HCA" means the Washington state health care authority.

(2) "Health plan," or "plan" means any individual or group: Policy, agreement, or other contract providing coverage for medical, surgical, hospital, or emergency care services, whether issued, or issued for delivery, in Washington or any other state. "Health Plan" or "plan" also includes any group health plan that is maintained by any state and governed by the Public Health Services Act in 42 U.S.C. Chapter 6A, self-insured coverage governed by the federal Employee Retirement Income Security Act of 1974, coverage through the Washington state health insurance ((Access Act)) pool as described in chapter 48.41 RCW, ((coverage through the Basic Health Plan as described in chapter 70.47 RCW, and)) coverage through the medicaid program as described in Title 74 RCW, and coverage through the Washington state health benefit exchange as described in chapter 43.71 RCW. "Health plan" or "plan" does not mean or include: Hospital confinement indemnity coverage as described in WAC 284-50-345; disability income protection coverage as described in WAC 284-50-355; accident only coverage as described in WAC 284-50-360; specified disease and specified accident coverage as described in WAC 284-50-365; limited benefit health insurance coverage as described in WAC 284-50-370; long-term care benefits as described in chapter 48.84 RCW; or limited health care coverage ~~((such as dental only, vision only, or chiropractic only))~~ ((e.g., dental only)).

(3) "Lapse in coverage" means a period of time greater than ~~((ninety))~~ sixty-three continuous days without coverage by a health plan.

(4) "Resident" means a person who demonstrates that ~~((he/she lives))~~ they live in the state of Washington ~~((at the time of application for, and issuance of coverage))~~ by providing evidence of residency.

AMENDATORY SECTION (Amending WSR 95-07-011, filed 3/3/95, effective 4/3/95)

**WAC 182-13-030 Eligibility.** ~~((Residents are))~~ A resident is eligible to apply for medicare ~~((supplement))~~ supplemental coverage ~~((arranged by))~~ available through the HCA ~~((when they are))~~ provided the resident is:

(1) ~~((Eligible for))~~ Enrolled in Parts A and B of medicare~~((s));~~ and

(2) ~~((Actually enrolled in both Parts A and B of medicare not later than the effective date of medicare supplement cov-~~

~~erage.))~~ Not eligible to purchase coverage as a retired or disabled employee under RCW 41.05.195.

AMENDATORY SECTION (Amending WSR 95-07-011, filed 3/3/95, effective 4/3/95)

**WAC 182-13-040 Application for medicare ~~((supplement))~~ supplemental coverage.** Residents meeting eligibility requirements may apply for medicare ~~((supplement))~~ supplemental coverage ~~((arranged by))~~ available through the HCA:

(1) ~~((During the initial open enrollment period of January 1 through June 30, 1995, or))~~ No earlier than thirty days before they are enrolled in both Parts A and B of medicare;

(2) Within ~~((sixty))~~ sixty-three days after becoming a resident~~((, or~~

~~((3) In the thirty day period before the resident becomes eligible for medicare, or~~

~~((4) Within sixty days of retirement, or~~

~~((5)) of Washington state;~~

(3) During any open enrollment period established by federal or state law~~((, or~~

~~((6));~~

(4) During any open enrollment period established by the HCA subsequent to the initial open enrollment period provided that the applicant is replacing a health plan with no lapse in coverage; or

(5) When replacing coverage as described in RCW 48.66.045 or when enrolling during a guaranteed issue period as described in RCW 48.66.055.

## WSR 19-01-055

### PERMANENT RULES

### HEALTH CARE AUTHORITY

(School Employees Benefits Board)

[Admin #2018-01—Filed December 14, 2018, 10:04 a.m., effective January 14, 2019]

Effective Date of Rule: Thirty-one days after filing.

Purpose: The health care authority (HCA) is developing three new chapters of rules to implement legislation that created the new school employees' benefits board (SEBB) program. The SEBB program will provide health care related benefits to all eligible school employees within school districts, educational service districts, and charter schools across the state of Washington.

Citation of Rules Affected by this Order: New WAC 182-30-010, 182-30-020, 182-30-040, 182-30-050, 182-30-070, 182-30-075, 182-30-090, 182-30-100, 182-30-110, 182-30-120, 182-31-010, 182-31-020, 182-31-030, 182-31-040, 182-31-050, 182-31-060, 182-31-090, 182-31-110, 182-31-140, 182-31-150, 182-31-160, 182-32-010, 182-32-020, 182-32-055, 182-32-058, 182-32-064, 182-32-066, 182-32-120, 182-32-130, 182-32-2000, 182-32-2005, 182-32-2010, 182-32-2020, 182-32-2030, 182-32-2050, 182-32-2070, 182-32-2080, 182-32-2085, 182-32-2090, 182-32-2100, 182-32-2105, 182-32-2110, 182-32-2120, 182-32-2130, 182-32-2140, 182-32-2150, 182-32-2160, 182-32-3000, 182-32-3005, 182-32-3010, 182-32-3015, 182-32-3030, 182-32-

3080, 182-32-3090, 182-32-3100, 182-32-3110, 182-32-3120, 182-32-3130, 182-32-3140, 182-32-3160, 182-32-3170, 182-32-3180, 182-32-3190, and 182-32-3200.  
 Statutory Authority for Adoption: RCW 41.05.021, 41.05.160.

Other Authority: SEBB policy resolutions.  
 Adopted under notice filed as WSR 18-22-064 on November 1, 2018.

Changes Other than Editing from Proposed to Adopted Version:

Proposed/ Adopted	WAC Subsection	Reason
<b>Original WAC 182-31-140 Who are eligible dependents?</b>		
Proposed	The school employees benefits board (SEBB) program will verify the eligibility of all self-pay subscriber dependents and will request documents that provide evidence of a dependent's eligibility. The SEBB program reserves the right to review a dependent's eligibility at any time. All SEBB organizations will verify the eligibility of all school employee dependents and will request documents that provide evidence of a dependent's eligibility. Both the SEBB program and the SEBB organizations will maintain these documents. The SEBB program and SEBB organizations will not enroll dependents into a health plan if they are unable to verify a dependent's eligibility within the SEBB program enrollment timelines.	HCA decided, based on stakeholder feedback, to remove the requirement for SEBB organizations and the SEBB program to maintain dependent verification documents.
Adopted	The school employees benefits board (SEBB) program will verify the eligibility of all self-pay subscriber dependents and will request documents that provide evidence of a dependent's eligibility. The SEBB program reserves the right to review a dependent's eligibility at any time. All SEBB organizations will verify the eligibility of all school employee dependents and will request documents that provide evidence of a dependent's eligibility. <del>Both the SEBB program and the SEBB organizations will maintain these documents.</del> The SEBB program and SEBB organizations will not enroll dependents into a health plan if they are unable to verify a dependent's eligibility within the SEBB program enrollment timelines.	

Number of Sections Adopted in Order to Comply with Federal Statute: New 0, Amended 0, Repealed 0; Federal Rules or Standards: New 0, Amended 0, Repealed 0; or Recently Enacted State Statutes: New 64, Amended 0, Repealed 0.

Number of Sections Adopted at the Request of a Non-governmental Entity: New 0, Amended 0, Repealed 0.

Number of Sections Adopted on the Agency's own Initiative: New 0, Amended 0, Repealed 0.

Number of Sections Adopted in Order to Clarify, Streamline, or Reform Agency Procedures: New 0, Amended 0, Repealed 0.

Number of Sections Adopted using Negotiated Rule Making: New 0, Amended 0, Repealed 0; Pilot Rule Making: New 0, Amended 0, Repealed 0; or Other Alternative Rule Making: New 64, Amended 0, Repealed 0.

Date Adopted: December 14, 2018.

Wendy Barcus  
 Rules Coordinator

**Chapter 182-30 WAC**

**ENROLLMENT PROCEDURES**

NEW SECTION

**WAC 182-30-010 Purpose.** The purpose of this chapter is to establish school employees benefits board (SEBB)

enrollment criteria and procedures for school employees eligible for SEBB benefits under RCW 41.05.740 (6)(d)(i). This chapter does not address where a SEBB organization has locally negotiated to offer SEBB benefits to school employees who are anticipated to work less than six hundred thirty hours in a school year as authorized in RCW 41.05.740 (6)(e).

NEW SECTION

**WAC 182-30-020 Definitions.** The following definitions apply throughout this chapter unless the context clearly indicates another meaning:

"Annual open enrollment" means a once yearly event set aside for a period of time by the HCA when subscribers may make changes to their health plan enrollment and salary reduction elections for the following plan year. During the annual open enrollment, subscribers may transfer from one health plan to another, enroll or remove dependents from coverage, or enroll or waive enrollment in SEBB medical. School employees participating in the salary reduction plan may enroll in or change their election under the dependent care assistance program (DCAP), and medical flexible spending arrangement (FSA). They may also enroll in or opt out of the premium payment plan.

"Authority" or "HCA" means the Washington state health care authority.

"Board" means the school employees benefits board established under provisions of RCW 41.05.740.

"Calendar days" or "days" means all days including Saturdays, Sundays, and holidays.

"Consolidated Omnibus Budget Reconciliation Act" or "COBRA" means continuation coverage as administered under 42 U.S.C. Secs. 300bb-1 through 300bb-8.

"Continuation coverage" means the temporary continuation of health plan coverage available to enrollees under the Consolidated Omnibus Budget Reconciliation Act (COBRA), 42 U.S.C. Secs. 300bb-1 through 300bb-8, the Uniformed Services Employment and Reemployment Rights Act (USERRA), 38 U.S.C. Secs. 4301 through 4335, or SEBB board policies.

"Contracted vendor" means any person, persons, or entity under contract or agreement with the HCA to provide goods or services for the provision or administration of SEBB benefits. The term "contracted vendor" includes subcontractors of the HCA and subcontractors of any person, persons, or entity under contract or agreement with the HCA that provide goods or services for the provision or administration of SEBB benefits.

"Dependent" means a person who meets eligibility requirements in WAC 182-31-140.

"Dependent care assistance program" or "DCAP" means a benefit plan whereby school employees may pay for certain employment related dependent care with pretax dollars as provided in the salary reduction plan pursuant to 26 U.S.C. Sec. 129 or other sections of the Internal Revenue Code.

"Director" means the director of the authority.

"Disability insurance" includes any basic long-term disability insurance paid for by the school employees benefits board (SEBB) organization and any supplemental long-term disability or supplemental short-term disability paid for by the employee.

"Employer contribution" means the funding amount paid to the HCA by a school employees benefits board (SEBB) organization for its eligible school employees as described under WAC 182-31-060.

"Enrollee" means a person who meets all eligibility requirements defined in chapter 182-31 WAC, who is enrolled in SEBB benefits, and for whom applicable premium payments have been made.

"Forms" means both paper forms and forms completed electronically.

"Health plan" means a plan offering medical, dental, or any combination of these coverages, developed by the SEBB and provided by a contracted vendor or self-insured plans administered by the HCA.

"Insignificant shortfall" means a premium balance owed that is less than or equal to the lesser of \$50 or ten percent of the premium required by the health plan as described in Treasury Regulation 26 C.F.R. 54.4980B-8.

"Life insurance" for eligible school employees includes any basic life insurance and accidental death and dismemberment (AD&D) insurance paid for by the school employees benefits board (SEBB) organization, as well as supplemental life insurance and supplemental AD&D insurance offered to and paid for by school employees for themselves and their dependents.

"LTD insurance" or "long-term disability insurance" includes any basic long-term disability insurance paid for by

the school employees benefits board (SEBB) organization and any supplemental long-term disability insurance offered to and paid for by the school employee.

"Medical flexible spending arrangement" or "medical FSA" means a benefit plan whereby school employees may reduce their salary before taxes to pay for medical expenses not reimbursed by insurance as provided in the salary reduction plan under this chapter pursuant to 26 U.S.C. Sec. 125 or other sections of the Internal Revenue Code.

"Premium payment plan" means a benefit plan whereby school employees may pay their share of group health plan premiums with pretax dollars as provided in the salary reduction plan under this chapter pursuant to 26 U.S.C. Sec. 125 or other sections of the Internal Revenue Code.

"Premium surcharge" means a payment required from a subscriber, in addition to the subscriber's medical premium contribution, due to an enrollee's tobacco use or an enrolled subscriber's spouse or state registered domestic partner choosing not to enroll in their employer-based group medical when:

- The spouse's or state registered domestic partner's share of the medical premium is less than ninety-five percent of the additional cost an employee would be required to pay to enroll a spouse or state registered domestic partner in the public employees benefits board (PEBB) Uniform Medical Plan (UMP) Classic; and

- The benefits have an actuarial value of at least ninety-five percent of the actuarial value of PEBB UMP Classic benefits.

"School employee" means all employees of school districts, educational service districts, and charter schools established under chapter 28A.710 RCW.

"School employees benefits board organization" or "SEBB organization" means a public school district or educational service district or charter school established under chapter 28A.710 RCW that is required to participate in benefit plans provided by the school employees benefits board.

"School year" means school year as defined in RCW 28A.150.203(11).

"SEBB" means the school employees benefits board established in RCW 41.05.740.

"SEBB benefits" means one or more insurance coverages or other school employee benefits administered by the SEBB program within the HCA.

"SEBB insurance coverage" means any health plan, life insurance, or disability insurance administered as a SEBB benefit.

"SEBB program" means the program within the HCA that administers insurance and other benefits for eligible school employees (as described in WAC 182-31-040) and eligible dependents (as described in 182-31-140).

"Short-term disability insurance" includes any basic short-term disability insurance paid for by the school employees benefits board (SEBB) organization and any supplemental short-term disability insurance offered to and paid for by the school employee.

"Special open enrollment" means a period of time when subscribers may make changes to their health plan enrollment and salary reduction elections outside of the annual open enrollment period when specific life events occur. During the

special open enrollment subscribers may change health plans and enroll or remove dependents from coverage. Additionally, school employees may enroll in or waive enrollment in SEBB medical. School employees eligible to participate in the salary reductions plan may enroll in or revoke their election under the DCAP, medical FSA, or the premium payment plan and make a new election. For special open enrollment events related to specific SEBB benefits, see WAC 182-30-090, 182-30-100, and 182-31-150.

"State registered domestic partner" has the same meaning as defined in RCW 26.60.020(1) and substantially equivalent legal unions from other jurisdictions as defined in RCW 26.60.090.

"Subscriber" means the school employee or continuation coverage enrollee who has been determined eligible by the SEBB program or SEBB organization and is the individual to whom the SEBB program and contracted vendors will issue all notices, information, requests, and premium bills on behalf of an enrollee.

"Tobacco products" means any product made with or derived from tobacco that is intended for human consumption, including any component, part, or accessory of a tobacco product. This includes, but is not limited to, cigars, cigarettes, pipe tobacco, chewing tobacco, snuff, and other tobacco products. It does not include e-cigarettes or United States Food and Drug Administration (FDA) approved quit aids.

"Tobacco use" means any use of tobacco products within the past two months. Tobacco use, however, does not include the religious or ceremonial use of tobacco.

#### NEW SECTION

**WAC 182-30-040 Premium payments and premium refunds.** Premiums and applicable premium surcharges are due as described in this section.

(1) **Premium payments.** School employees benefits board (SEBB) insurance coverage premiums and applicable premium surcharges become due the first of the month in which SEBB insurance coverage is effective. Premiums and applicable premium surcharges are due from the subscriber for the entire month of SEBB insurance coverage and will not be prorated during any month.

(a) For school employees who are eligible for the employer contribution, the school employee's premiums and applicable premium surcharges are due to the SEBB organization. If a school employee elects supplemental coverage, the school employee is responsible for payment of premiums starting the month the supplemental coverage begins.

(b) Unpaid or underpaid premiums or applicable premium surcharges for all subscribers must be paid, and are due from the SEBB organization, subscriber, or a subscriber's legal representative to the health care authority (HCA). For subscribers not eligible for the employer contribution or school employees eligible for the employer contribution as described in WAC 182-31-110, monthly premiums or applicable premium surcharges that remain unpaid for thirty days will be considered delinquent. A subscriber is allowed a grace period of thirty days from the date the monthly premiums or applicable premium surcharges become delinquent to

pay the unpaid premium balance or applicable surcharges. If a subscriber's monthly premiums or applicable premium surcharges remain unpaid for sixty days from the original due date, the subscriber's SEBB insurance coverage will be terminated retroactive to the last day of the month for which the monthly premiums and any applicable premium surcharges were paid. If it is determined by the HCA that payment of the unpaid balance in a lump sum would be considered a hardship, the HCA may develop a reasonable payment plan with the subscriber or the subscriber's legal representative upon request.

(c) Monthly premiums or applicable premium surcharges due from a subscriber who is not eligible for the employer contribution will be considered unpaid if one of the following occurs:

(i) No payment of premiums or applicable premium surcharges are received by the HCA and the monthly premiums or premium surcharges remain unpaid for thirty days; or

(ii) Premium payments or applicable premium surcharges received by the HCA are underpaid by an amount greater than an insignificant shortfall and the monthly premiums or applicable premium surcharges remain underpaid for thirty days past the date the monthly premiums or applicable premium surcharges were due.

(2) **Premium refunds.** SEBB premiums and applicable premium surcharges will be refunded using the following method:

(a) When a subscriber submits an enrollment change affecting subscriber or dependent eligibility, HCA may allow up to three months of accounting adjustments. HCA will refund to the individual or the SEBB organization any excess premiums and applicable premium surcharges paid during the three month adjustment period.

(b) If a SEBB subscriber, dependent, or beneficiary submits a written appeal as described in WAC 182-32-2010, showing proof of extraordinary circumstances beyond their control such that it was effectively impossible to submit the necessary information to accomplish an allowable enrollment change within sixty days after the event that created a change of premiums, the SEBB director, the SEBB director's designee, or the SEBB appeals unit may approve a refund of premiums and applicable premium surcharges that does not exceed twelve months of premiums.

(c) If a federal government entity determines that an enrollee is retroactively enrolled in coverage (for example, medicare) the subscriber or beneficiary may be eligible for a refund of premiums and applicable premium surcharges paid during the time if approved by SEBB director or the SEBB director's designee.

(d) HCA errors will be corrected by returning all excess premiums and applicable premium surcharges paid by the SEBB organization, subscriber, or beneficiary.

(e) SEBB organization errors will be corrected by returning all excess premiums and applicable premium surcharges paid by the school employee or beneficiary.

#### NEW SECTION

**WAC 182-30-050 What are the requirements regarding premium surcharges?** (1) A subscriber's account

will incur a premium surcharge in addition to the subscriber's monthly premium, when any enrollee, thirteen years and older, engages in tobacco use.

(a) A subscriber must attest to whether any enrollee, thirteen years and older, enrolled in their school employees benefits board (SEBB) medical engages in tobacco use. The subscriber must attest as described in (a)(i) through (iv) of this subsection:

(i) A school employee who is newly eligible or regains eligibility for the employer contribution toward SEBB benefits must complete the required form to enroll in SEBB medical. The school employee must include their attestation on the required form. The school employee must submit the attestation to their SEBB organization. If the school employee's attestation results in a premium surcharge, it will take effect the same date as SEBB medical begins;

(ii) If there is a change in the tobacco use status of any enrollee, thirteen years and older on the subscriber's SEBB medical, the subscriber must update their attestation on the required form. A school employee must submit the form to their SEBB organization. All other subscribers must submit their updated attestation to the SEBB program;

- A change that results in a premium surcharge will begin the first day of the month following the status change. If that day is the first of the month, the change to the surcharge begins on that day.

- A change that results in removing the premium surcharge will begin the first day of the month following receipt of the attestation. If that day is the first of the month, the change to the surcharge begins on that day.

(iii) If a subscriber submits the required form to enroll a dependent, thirteen years and older, in SEBB medical, the subscriber must attest for their dependent on the required form. A school employee must submit the form to their SEBB organization. All other subscribers must submit their form to the SEBB program. A change that results in a premium surcharge will take effect the same date as SEBB medical begins; or

(iv) An enrollee, thirteen years and older, who elects to continue medical coverage as described in WAC 182-31-090, must provide an attestation on the required form if they have not previously attested as described in (a) of this subsection. The enrollee must submit their updated form to the SEBB program. An attestation that results in a premium surcharge will take effect the same date as SEBB medical begins.

(b) A subscriber's account will incur a premium surcharge when a subscriber fails to attest to the tobacco use status of all enrollees as described in (a) of this subsection.

(c) The SEBB program will provide a reasonable alternative for enrollees who use tobacco products. A subscriber can avoid the tobacco use premium surcharge if the subscriber attests on the required form that all enrollees who use tobacco products enrolled in or accessed the applicable reasonable alternative offered below:

(i) An enrollee who is eighteen years and older and uses tobacco products is currently enrolled in the free tobacco cessation program through their SEBB medical.

(ii) An enrollee who is thirteen through seventeen years old and uses tobacco products accessed the information and

resources aimed at teens on the Washington state department of health's web site at <https://teen.smokefree.gov>.

(iii) A subscriber may contact the SEBB program to accommodate a physician's recommendation that addresses an enrollee's use of tobacco products or for information on how to avoid the tobacco use premium surcharge.

(2) A subscriber will incur a premium surcharge, in addition to the subscriber's monthly premium, if an enrolled spouse or state registered domestic partner elected not to enroll in another employer-based group medical where the spouse's or state registered domestic partner's share of the medical premium is less than ninety-five percent of the additional cost a school employee would be required to pay to enroll a spouse or state registered domestic partner in the public employees benefits board (PEBB) Uniform Medical Plan (UMP) Classic and the benefits have an actuarial value of at least ninety-five percent of the actuarial value of the PEBB UMP Classic's benefits.

(a) A subscriber who enrolled a spouse or state registered domestic partner under their SEBB medical may only attest during the following times:

(i) When a subscriber becomes eligible to enroll a spouse or state registered domestic partner in SEBB medical or during the annual open enrollment. The subscriber must complete the required form to enroll their spouse or state registered domestic partner, and include their attestation on that form. The school employee must submit the form to their SEBB organization. Any other subscriber must submit the form to the SEBB program. If the subscriber's attestation results in a premium surcharge it will take effect the same date as SEBB medical begins;

(ii) When a special open enrollment event occurs. The subscriber must submit the required form to enroll their spouse or state registered domestic partner in SEBB medical and include their attestation on the required form. A school employee must submit the form to their SEBB organization. Any other subscriber must submit the form to the SEBB program. If the subscriber's attestation results in a premium surcharge it will take effect the same date as SEBB medical begins;

(iii) During the annual open enrollment. A subscriber must attest if during the month prior to the annual open enrollment the subscriber was:

- Incurring the surcharge;
- Not incurring the surcharge because the spouse's or state registered domestic partner's share of the medical premium through their employer-based group medical was more than ninety-five percent of the additional cost a school employee would be required to pay to enroll a spouse or state registered domestic partner in the PEBB UMP Classic; or

- Not incurring the surcharge because the actuarial value of benefits provided through the spouse's or state registered domestic partner's employer-based group medical was less than ninety-five percent of the actuarial value of the PEBB UMP Classic's benefits.

A subscriber must update their attestation on the required form. A school employee must submit an updated attestation to their SEBB organization. Any other subscriber must submit the form to the SEBB program. The subscriber's attestation or any correction to a subscriber's attestation must be

received no later than December 31st of the year in which the annual open enrollment occurs. If the subscriber's attestation results in a premium surcharge, being added or removed, the change to the surcharge will take effect January 1st of the following year; and

(iv) When there is a change in the spouse's or state registered domestic partner's employer-based group medical. A subscriber must update their attestation on the required form. A school employee must submit an updated attestation to their SEBB organization no later than sixty days after the spouse's or state registered domestic partner's employer-based group medical status changes. Any other subscriber must submit an updated attestation to the SEBB program no later than sixty days after the spouse's or state registered domestic partner's employer-based group medical status changes;

- A change that results in a premium surcharge will begin the first day of the month following the status change. If that day is the first day of the month, the change to the premium surcharge begins on that day;

- A change that results in removing the premium surcharge will begin the first day of the month following receipt of the attestation. If that day is the first day of the month, the change to the premium surcharge begins on that day.

(b) A premium surcharge will be applied to a subscriber who does not attest as described in (a) of this subsection.

#### NEW SECTION

**WAC 182-30-070 The employer contribution is set by the health care authority (HCA) and paid to the HCA for all eligible school employees.** School employees benefits board (SEBB) organizations must pay the employer contributions to the health care authority (HCA) for SEBB insurance coverage for all eligible school employees and their dependents.

(1) Employer contributions are set by the HCA, and are subject to the approval of the governor for availability of funds as specifically appropriated by the legislature for that purpose.

(2) Employer contributions must include an amount determined by the HCA to pay administrative costs to administer SEBB insurance coverage for school employees.

(3) Each eligible school employee of a SEBB organization on leave under the federal Family and Medical Leave Act (FMLA) is eligible for the employer contribution as described in WAC 182-31-110.

#### NEW SECTION

**WAC 182-30-075 Subscriber requirements as part of participation in school employees benefits board (SEBB) benefits.** All school employees must provide their SEBB organization with their correct mailing address and provide any updates as needed in the future. All other subscribers must provide the SEBB program with their correct mailing address and provide any updates to their mailing address if it changes.

#### NEW SECTION

**WAC 182-30-090 When may a subscriber change health plans?** Subscribers may change health plans at the following times:

(1) **During annual open enrollment:** Subscribers may change health plans during the school employees benefits board (SEBB) annual open enrollment period. The subscriber must submit the required enrollment forms to change their health plan. A school employee submits the enrollment forms to their SEBB organization. All other subscribers submit the enrollment forms to the SEBB program. The required enrollment forms must be received no later than the last day of the annual open enrollment. Enrollment in the new health plan will begin January 1st of the following year.

(2) **During a special open enrollment:** Subscribers may revoke their health plan election and make a new election outside of the annual open enrollment if a special open enrollment event occurs. The change in enrollment must be allowable under Internal Revenue Code (IRC) and Treasury Regulations, and correspond to and be consistent with the event that creates the special open enrollment for the subscriber, the subscriber's dependent, or both. To make a health plan change, the subscriber must submit the required enrollment forms. The forms must be received no later than sixty days after the event occurs. A school employee submits the enrollment forms to their SEBB organization. All other subscribers submit the enrollment forms to the SEBB program. Subscribers must provide evidence of the event that created the special open enrollment. New health plan coverage will begin the first day of the month following the latter of the event date or the date the form is received. If that day is the first of the month, the change in enrollment begins on that day. If the special open enrollment is due to the birth, adoption, or assumption of legal obligation for total or partial support in anticipation of adoption of a child, health plan coverage will begin the month in which the birth, adoption, or assumption of legal obligation for total or partial support in anticipation of adoption occurs. Any one of the following events may create a special open enrollment:

(a) Subscriber acquires a new dependent due to:

(i) Marriage or registering a state registered domestic partnership;

(ii) Birth, adoption, or when the subscriber has assumed a legal obligation for total or partial support in anticipation of adoption; or

(iii) A child becoming eligible as an extended dependent through legal custody or legal guardianship.

(b) Subscriber or a subscriber's dependent loses other coverage under a group health plan or through health insurance coverage, as defined by the Health Insurance Portability and Accountability Act (HIPAA);

(c) Subscriber has a change in employment status that affects the subscriber's eligibility for the employer contribution toward their employer-based group health plan;

(d) The subscriber's dependent has a change in their own employment status that affects their eligibility for the employer contribution under their employer-based group health plan;

**Exception:** For the purposes of special open enrollment "employer contribution" means contributions made by the dependent's current or former employer toward health coverage as described in Treasury Regulation 26 C.F.R. 54.9801-6.

(e) Subscriber or a subscriber's dependent has a change in residence that affects health plan availability. If the subscriber moves and the subscriber's current health plan is not available in the new location the subscriber must select a new health plan;

(f) A court order requires the subscriber or any other individual to provide insurance coverage for an eligible dependent of the subscriber (a former spouse or former state registered domestic partner is not an eligible dependent);

(g) Subscriber or a subscriber's dependent becomes entitled to coverage under medicaid or a state children's health insurance program (CHIP), or the subscriber or a subscriber's dependent loses eligibility for coverage under medicaid or CHIP;

(h) Subscriber or a subscriber's dependent becomes eligible for state premium assistance subsidy for SEBB health plan coverage from medicaid or CHIP;

(i) Subscriber or a subscriber's dependent's current health plan becomes unavailable because the subscriber or enrolled dependent is no longer eligible for a health savings account (HSA). The authority may require evidence that the subscriber or subscriber's dependent is no longer eligible for an HSA;

(j) Subscriber or a subscriber's dependent experiences a disruption of care that could function as a reduction in benefits for the subscriber or the subscriber's dependent for a specific condition or ongoing course of treatment. The subscriber may not change their health plan election if the subscriber's or dependent's physician stops participation with the subscriber's health plan unless the SEBB program determines that a continuity of care issue exists. The SEBB program will consider but not limit its consideration to the following:

(i) Active cancer treatment such as chemotherapy or radiation therapy for up to ninety days or until medically stable;

(ii) Transplant within the last twelve months;

(iii) Scheduled surgery within the next sixty days (elective procedures within the next sixty days do not qualify for continuity of care);

(iv) Recent major surgery still within the postoperative period of up to eight weeks; or

(v) Third trimester of pregnancy.

If the school employee is having premiums taken from payroll on a pretax basis, a health plan change will not be approved if it would conflict with provisions of the salary reduction plan authorized under RCW 41.05.300.

#### NEW SECTION

**WAC 182-30-100 When may a subscriber enroll or revoke an election and make a new election under the premium payment plan, medical flexible spending arrangement (FSA), or dependent care assistance program (DCAP)?** A subscriber who is eligible to participate in the salary reduction plan as described in WAC 182-31-060 may

enroll, or revoke their election and make a new election under the premium payment plan, medical flexible spending arrangement (FSA), or dependent care assistance program (DCAP) at the following times:

(1) When newly eligible under WAC 182-31-040.

(2) **During annual open enrollment:** An eligible subscriber may elect to enroll in or opt out of their participation under the premium payment plan during the annual open enrollment; school employees submit the required form to their school employees benefits board (SEBB) organization; all other subscribers submit the form to the health care authority (HCA). An eligible subscriber may elect to enroll or reenroll in the medical FSA, DCAP, or both during the annual open enrollment by submitting the required forms to their SEBB organization, the HCA or applicable contracted vendor. All required forms must be received no later than the last day of the annual open enrollment. The enrollment or new election becomes effective January 1st of the following year.

**Note:** Subscribers enrolled in a consumer-directed health plan (CDHP) with a health savings account (HSA) cannot also enroll in a medical FSA in the same plan year. Subscribers who elect both will only be enrolled in the CDHP with a HSA.

(3) **During a special open enrollment:** A subscriber who is eligible to participate in the salary reduction plan may enroll or revoke their election and make a new election under the premium payment plan, medical FSA, or DCAP outside of the annual open enrollment if a special open enrollment event occurs. The enrollment or change in election must be allowable under Internal Revenue Code (IRC) and Treasury Regulations, and correspond to and be consistent with the event that creates the special open enrollment. To make a change or enroll, the school employee must submit the required forms to their SEBB organization, all other subscribers must submit the required forms to HCA. The SEBB organization or HCA must receive the required form and evidence of the event that created the special open enrollment no later than sixty days after the event occurs.

For purposes of this section, an eligible dependent includes any person who qualifies as a dependent of the school employee for tax purposes under IRC 26 U.S.C. Sec. 152 without regard to the income limitations of that section. It does not include a state registered domestic partner unless the state registered domestic partner otherwise qualifies as a dependent for tax purposes under IRC 26 U.S.C. Sec. 152.

(a) **Premium payment plan.** A subscriber may enroll or revoke their election and elect to opt out of the premium payment plan when any of the following special open enrollment events occur, if the requested change corresponds to and is consistent with the event. The enrollment or election to opt out will be effective the first day of the month following the latter of the event date or the date the required form is received. If that day is the first of the month, the enrollment or change in election begins on that day. If the special open enrollment is due to the birth, adoption, or assumption of legal obligation for total or partial support in anticipation of adoption of a child, the enrollment or change in election will begin the first of the month in which the event occurs.

- (i) Subscriber acquires a new dependent due to:
- Marriage;
  - Registering a domestic partnership when the dependent is a tax dependent of the subscriber;
  - Birth, adoption, or when the subscriber has assumed a legal obligation for total or partial support in anticipation of adoption; or
  - A child becoming eligible as an extended dependent through legal custody or legal guardianship.
- (ii) Subscriber's dependent no longer meets SEBB eligibility criteria because:
- Subscriber has a change in marital status;
  - Subscriber's domestic partnership with a state registered domestic partner who is a tax dependent is dissolved or terminated;
  - An eligible dependent child turns age twenty-six or otherwise does not meet dependent child eligibility criteria;
  - An eligible dependent ceases to be eligible as an extended dependent or as a dependent with a disability; or
  - An eligible dependent dies.
- (iii) Subscriber or a subscriber's dependent loses other coverage under a group health plan or through health insurance coverage, as defined by Health Insurance Portability and Accountability Act (HIPAA);
- (iv) Subscriber has a change in employment status that affects the subscriber's eligibility for their employer contribution toward their employer's health plan;
- (v) The subscriber's dependent has a change in their employment status that affects their eligibility for the employer contribution toward their employer-based group health plan;

**Exception:** For the purposes of special open enrollment, "employer contribution" means contributions made by the dependent's current or former employer toward health coverage as described in Treasury Regulation 26 C.F.R. 54.9801-6.

- (vi) Subscriber or a subscriber's dependent has a change in enrollment under an employer-based group health plan during its annual open enrollment that does not align with the SEBB annual open enrollment;
- (vii) Subscriber or a subscriber's dependent has a change in residence that affects health plan availability;
- (viii) Subscriber's dependent has a change in residence from outside of the United States to within the United States, or from within the United States to outside of the United States;
- (ix) A court order requires the subscriber or any other individual to provide insurance coverage for an eligible dependent of the subscriber (a former spouse or former state registered domestic partner is not an eligible dependent);
- (x) Subscriber or a subscriber's dependent becomes entitled to coverage under medicaid or a state children's health insurance program (CHIP), or the subscriber or a subscriber's dependent loses eligibility for coverage under medicaid or CHIP;
- (xi) Subscriber or a subscriber's dependent becomes eligible for state premium assistance subsidy for SEBB health plan coverage from medicaid or CHIP;
- (xii) Subscriber or a subscriber's dependent becomes entitled to coverage under medicare or the subscriber or a

subscriber's dependent loses eligibility for coverage under medicare;

(xiii) Subscriber or a subscriber's dependent's current health plan becomes unavailable because the school employee or enrolled dependent is no longer eligible for a HSA. The HCA may require evidence that the subscriber or a subscriber's dependent is no longer eligible for a HSA;

(xiv) Subscriber or a subscriber's dependent experiences a disruption of care that could function as a reduction in benefits for the subscriber or a subscriber's dependent for a specific condition or ongoing course of treatment. The subscriber may not change their health plan election if the subscriber's or dependent's physician stops participation with the subscriber's health plan unless the SEBB program determines that a continuity of care issue exists. The SEBB program will consider but not limit its consideration to the following:

- Active cancer treatment such as chemotherapy or radiation therapy for up to ninety days or until medically stable;
- Transplant within the last twelve months;
- Scheduled surgery within the next sixty days (elective procedures within the next sixty days do not qualify for continuity of care);
- Recent major surgery still within the postoperative period of up to eight weeks; or
- Third trimester of pregnancy.

(xv) Subscriber or a subscriber's dependent becomes eligible and enrolls in a TRICARE plan, or loses eligibility for a TRICARE plan.

If the subscriber is having premiums taken from payroll on a pretax basis, a plan change will not be approved if it would conflict with provisions of the salary reduction plan authorized under RCW 41.05.300.

(b) **Medical FSA.** A subscriber may enroll or revoke their election and make a new election under the medical FSA when any one of the following special open enrollment events occur, if the requested change corresponds to and is consistent with the event. The enrollment or new election will be effective the first day of the month following the latter of the event date or the date the required form and evidence of the event that created the special open enrollment is received by the SEBB organization or the HCA. If that day is the first of the month, the enrollment or change in election begins on that day. If the special open enrollment is due to the birth, adoption, or assumption of legal obligation for total or partial support in anticipation of adoption of a child, the enrollment or change in election will begin the first of the month in which the event occurs.

- (i) Subscriber acquires a new dependent due to:
- Marriage;
  - Registering a domestic partnership if the state registered domestic partner qualifies as a tax dependent of the subscriber;
  - Birth, adoption, or when the subscriber has assumed a legal obligation for total or partial support in anticipation of adoption; or
  - A child becoming eligible as an extended dependent through legal custody or legal guardianship.
- (ii) Subscriber's dependent no longer meets SEBB subscriber or has a change in marital status;

- Subscriber's domestic partnership with a state registered domestic partner who qualifies as a tax dependent is dissolved or terminated;

- An eligible dependent child turns age twenty-six or otherwise does not meet dependent child eligibility criteria;

- An eligible dependent ceases to be eligible as an extended dependent or as a dependent with a disability; or

- An eligible dependent dies.

(iii) Subscriber or a subscriber's dependent loses other coverage under a group health plan or through health insurance coverage, as defined by HIPAA;

(iv) Subscriber or a subscriber's dependent has a change in employment status that affects the employee's or a dependent's eligibility for the medical FSA;

(v) A court order requires the subscriber or any other individual to provide insurance coverage for an eligible dependent of the subscriber (a former spouse or former state registered domestic partner is not an eligible dependent);

(vi) Subscriber or a subscriber's dependent becomes entitled to coverage under medicaid or CHIP, or the school employee or a school employee's dependent loses eligibility for coverage under medicaid or CHIP;

(vii) Subscriber or a subscriber's dependent becomes entitled to coverage under medicare.

(c) **DCAP.** A subscriber may enroll or revoke their election and make a new election under the DCAP when any one of the following special open enrollment events occur, if the requested change corresponds to and is consistent with the event. The enrollment or new election will be effective the first day of the month following the latter of the event date or the date the required form and evidence of the event that created the special open enrollment is received by the SEBB organization or the HCA. If that day is the first of the month, the enrollment or change in election begins on that day. If the special open enrollment is due to the birth, adoption, or assumption of legal obligation for total or partial support in anticipation of adoption of a child, the enrollment or change in election will begin the first of the month in which the event occurs.

(i) Subscriber acquires a new dependent due to:

- Marriage;

- Registering a domestic partnership if the state registered domestic partner qualifies as a tax dependent of the subscriber;

- Birth, adoption, or when the subscriber has assumed a legal obligation for total or partial support in anticipation of adoption; or

- A child becoming eligible as an extended dependent through legal custody or legal guardianship.

(ii) Subscriber or a subscriber's dependent has a change in employment status that affects the school employee's or a dependent's eligibility for DCAP;

(iii) Subscriber or a subscriber's dependent has a change in enrollment under an employer-based group health plan during its annual open enrollment that does not align with the SEBB annual open enrollment;

(iv) Subscriber changes dependent care provider; the change to the DCAP election amount can reflect the cost of the new provider;

(v) Subscriber or a subscriber's spouse experiences a change in the number of qualifying individuals as defined in IRC 26 U.S.C. Sec. 21 (b)(1);

(vi) Subscriber dependent care provider imposes a change in the cost of dependent care; subscriber may make a change in the DCAP election amount to reflect the new cost if the dependent care provider is not a qualifying relative of the subscriber as defined in IRC 26 U.S.C. Sec. 152.

#### NEW SECTION

**WAC 182-30-110 Which school employees benefits board (SEBB) organization is responsible to pay the employer contribution for eligible school employees changing SEBB organizations?** When an eligible school employee's employment relationship terminates with a school employees benefits board (SEBB) organization at any time during the month for which a premium contribution is due and that school employee moves to another SEBB organization, the SEBB organization losing the school employee is responsible for the payment of the employer contribution for the school employee for that month. The SEBB organization the school employee is moving to is responsible for payment of the employer contribution for the school employee beginning the first day of the month following the move if the school employee is eligible.

#### NEW SECTION

**WAC 182-30-120 Advertising or promotion of school employees benefits board (SEBB) benefit plans.** (1) In order to assure equal and unbiased representation of school employees benefits board (SEBB) benefits, contracted vendors must comply with all of the following:

(a) All materials describing SEBB benefits must be prepared by or approved by the health care authority (HCA) before use.

(b) Distribution or mailing of all benefit descriptions must be performed by or under the direction of the HCA.

(c) All media announcements or advertising by a contracted vendor which includes any mention of the "school employees benefits board," "SEBB," "health care authority," "HCA," any reference to benefits for "school employees," or any group of enrollees covered by SEBB benefits, must receive the advance written approval of the HCA.

(2) Failure to comply with any or all of these requirements by a SEBB contracted vendor or subcontractor may result in contract termination by the authority, refusal to continue or renew a contract with the noncomplying party, or both.

### **Chapter 182-31 WAC**

#### **ELIGIBLE SCHOOL EMPLOYEES**

#### NEW SECTION

**WAC 182-31-010 Purpose.** The purpose of this chapter is to establish school employees benefits board (SEBB) eligibility criteria for and the effective date of enrollment in SEBB approved benefits for school employees eligible for

SEBB benefits under RCW 41.05.740 (6)(d)(i). This chapter does not address where a SEBB organization has locally negotiated to offer SEBB benefits to school employees who are anticipated to work less than six hundred thirty hours in a school year as authorized in RCW 41.05.740 (6)(e).

#### NEW SECTION

**WAC 182-31-020 Definitions.** The following definitions apply throughout this chapter unless the context clearly indicates another meaning:

"Annual open enrollment" means a once yearly event set aside for a period of time by the HCA when subscribers may make changes to their health plan enrollment and salary reduction elections for the following plan year. During the annual open enrollment, subscribers may transfer from one health plan to another, enroll or remove dependents from coverage, or enroll or waive enrollment in SEBB medical. School employees participating in the salary reduction plan may enroll in or change their election under the dependent care assistance program (DCAP), and medical flexible spending arrangement (FSA). They may also enroll in or opt out of the premium payment plan.

"Authority" or "HCA" means the Washington state health care authority.

"Calendar days" or "days" means all days including Saturdays, Sundays, and holidays.

"Consolidated Omnibus Budget Reconciliation Act" or "COBRA" means continuation coverage as administered under 42 U.S.C. Secs. 300bb-1 through 300bb-8.

"Continuation coverage" means the temporary continuation of health plan coverage available to enrollees under the Consolidated Omnibus Budget Reconciliation Act (COBRA), 42 U.S.C. Secs. 300bb-1 through 300bb-8, the Uniformed Services Employment and Reemployment Rights Act (USERRA), 38 U.S.C. Secs. 4301 through 4335, or SEBB board policies.

"Contracted vendor" means any person, persons, or entity under contract or agreement with the HCA to provide goods or services for the provision or administration of SEBB benefits. The term "contracted vendor" includes subcontractors of the HCA and subcontractors of any person, persons, or entity under contract or agreement with the HCA that provide goods or services for the provision or administration of SEBB benefits.

"Dependent" means a person who meets eligibility requirements in WAC 182-31-140.

"Dependent care assistance program" or "DCAP" means a benefit plan whereby school employees may pay for certain employment related dependent care with pretax dollars as provided in the salary reduction plan pursuant to 26 U.S.C. Sec. 129 or other sections of the Internal Revenue Code.

"Director" means the director of the authority.

"Disability insurance" includes any basic long-term disability insurance paid for by the school employees benefits board (SEBB) organization and any supplemental long-term disability or supplemental short-term disability paid for by the employee.

"Documents" means papers, letters, writings, electronic mail, electronic files, or other printed or written items. Docu-

ments include evidence needed to verify eligibility for SEBB benefits and complete the enrollment process.

"Effective date of enrollment" means the first date when an enrollee is entitled to receive covered benefits.

"Employer contribution" means the funding amount paid to the HCA by a school employees benefits board (SEBB) organization for its eligible school employees as described under WAC 182-31-060.

"Enrollee" means a person who meets all eligibility requirements defined in chapter 182-31 WAC, who is enrolled in school employees benefits board (SEBB) benefits, and for whom applicable premium payments have been made.

"Forms" means both paper forms and forms completed electronically.

"Health plan" means a plan offering medical, dental, or any combination of these coverages, developed by the school employees benefits board and provided by a contracted vendor or self-insured plans administered by the HCA.

"Life insurance" for eligible school employees includes any basic life insurance and accidental death and dismemberment (AD&D) insurance paid for by the school employees benefits board (SEBB) organization, as well as supplemental life insurance and supplemental AD&D insurance offered to and paid for by school employees for themselves and their dependents.

"LTD insurance" or "long-term disability insurance" includes any basic long-term disability insurance paid for by the school employees benefits board (SEBB) organization and any supplemental long-term disability insurance offered to and paid for by the school employee.

"Medical flexible spending arrangement" or "medical FSA" means a benefit plan whereby school employees may reduce their salary before taxes to pay for medical expenses not reimbursed by insurance as provided in the salary reduction plan under this chapter pursuant to 26 U.S.C. Sec. 125 or other sections of the Internal Revenue Code.

"Premium payment plan" means a benefit plan whereby school employees may pay their share of group health plan premiums with pretax dollars as provided in the salary reduction plan. (Chapter 41.05 RCW)

"Premium surcharge" means a payment required from a subscriber, in addition to the subscriber's medical premium contribution, due to an enrollee's tobacco use or an enrolled subscriber's spouse or state registered domestic partner choosing not to enroll in their employer-based group medical when:

- The spouse's or state registered domestic partner's share of the medical premium is less than ninety-five percent of the additional cost an employee would be required to pay to enroll a spouse or state registered domestic partner in the public employees benefits board (PEBB) Uniform Medical Plan (UMP) Classic; and
- The benefits have an actuarial value of at least ninety-five percent of the actuarial value of PEBB UMP Classic benefits.

"Salary reduction plan" means a benefit plan whereby school employees may agree to a reduction of salary on a pretax basis to participate in the dependent care assistance program, medical flexible spending arrangement, or premium

payment plan offered pursuant to 26 U.S.C. Sec. 125 or other sections of the Internal Revenue Code.

"School employee" means all employees of school districts, educational service districts, and charter schools established under chapter 28A.710 RCW.

"School employees benefits board organization" or "SEBB organization" means a public school district or educational service district or charter school established under chapter 28A.710 RCW that is required to participate in benefit plans provided by the school employees benefits board.

"School year" means school year as defined in RCW 28A.150.203(11).

"SEBB" means the school employees benefits board established in RCW 41.05.740.

"SEBB benefits" means one or more insurance coverages or other school employee benefits administered by the SEBB program within the HCA.

"SEBB insurance coverage" means any health plan, life insurance, or disability insurance administered as a SEBB benefit.

"SEBB program" means the program within the HCA that administers insurance and other benefits for eligible school employees (as described in WAC 182-31-040) and eligible dependents (as described in WAC 182-31-140).

"Special open enrollment" means a period of time when subscribers may make changes to their health plan enrollment and salary reduction elections outside of the annual open enrollment period when specific life events occur. During the special open enrollment subscribers may change health plans and enroll or remove dependents from coverage. Additionally, school employees may enroll in or waive enrollment in SEBB medical. School employees eligible to participate in the salary reductions plan may enroll in or revoke their election under the DCAP, medical FSA, or the premium payment plan and make a new election. For special open enrollment events related to specific SEBB benefits, see WAC 182-30-090, 182-30-100, and 182-31-150.

"State registered domestic partner" has the same meaning as defined in RCW 26.60.020(1) and substantially equivalent legal unions from other jurisdictions as defined in RCW 26.60.090.

"Subscriber" means the school employee or continuation coverage enrollee who has been determined eligible by the SEBB program or SEBB organizations and is the individual to whom the SEBB program and contracted vendors will issue all notices, information, requests, and premium bills on behalf of an enrollee.

"Tobacco products" means any product made with or derived from tobacco that is intended for human consumption, including any component, part, or accessory of a tobacco product. This includes, but is not limited to, cigars, cigarettes, pipe tobacco, chewing tobacco, snuff, and other tobacco products. It does not include e-cigarettes or United States Food and Drug Administration (FDA) approved quit aids.

"Tobacco use" means any use of tobacco products within the past two months. Tobacco use, however, does not include the religious or ceremonial use of tobacco.

#### NEW SECTION

**WAC 182-31-030 What are the obligations of a school employees benefits board (SEBB) organization in the application of school employee eligibility?** (1) All school employees benefits board (SEBB) organizations must carry out all actions, policies, and guidance issued by the SEBB program which are necessary for the operation of benefit plans, education about benefits for school employees, claims administration, and appeals processing including those described in chapters 182-30, 182-31, and 182-32 WAC. SEBB organizations must:

(a) Use the methods provided by the SEBB program to determine eligibility and enrollment in benefits;

(b) Provide eligibility determination reports with content and in a format designed and communicated by the SEBB program;

(c) Support SEBB program auditing of eligibility and enrollment decisions as needed; and

(d) Carry out corrective action and pay any penalties imposed by the health care authority (HCA) and established by the SEBB when the SEBB organization's eligibility determinations fail to comply with the criteria under these rules.

(2) SEBB organizations must determine school employee and their dependents eligibility for SEBB benefits and the employer contribution according to the criteria in WAC 182-31-040 and 182-31-050. SEBB organizations must:

(a) Notify newly hired school employees of SEBB program rules and guidance for eligibility and appeal rights;

(b) Inform a school employee in writing whether or not they are eligible for SEBB benefits upon employment. The written communication must include information about the school employee's right to appeal eligibility and enrollment decisions;

(c) Routinely monitor all school employees work hours to establish eligibility and maintain the employer contribution toward SEBB insurance coverage;

(d) Identify when a previously ineligible school employee becomes eligible or a previously eligible school employee loses eligibility; and

(e) Inform a school employee in writing whether or not they are eligible for benefits and the employer contribution whenever there is a change in work patterns such that the school employee's eligibility status changes. At the same time, SEBB organizations must inform school employees of the right to appeal eligibility and enrollment decisions.

(3) SEBB organizations must determine school employee's dependents eligibility for SEBB benefits according to the criteria in WAC 182-31-140.

#### NEW SECTION

**WAC 182-31-040 How do school employees establish eligibility for the employer contribution toward school employees benefits board (SEBB) benefits and when does SEBB insurance coverage begin?** (1) Eligibility shall be determined solely by the criteria that most closely describes the school employee's work circumstance.

(2) All hours worked by an employee in their capacity as a school employee must be included in the calculation of hours for determining eligibility.

(3) School employee eligibility criteria:

(a) A school employee is eligible for the employer contribution towards school employees benefits board (SEBB) benefits if they are anticipated to work at least six hundred thirty hours per school year. The eligibility effective date for a school employee eligible under this subsection shall be determined as follows:

(i) If the school employee's first day of work is on or after September 1st but not later than the first day of school for the current school year as established by the SEBB organization, they are eligible for the employer contribution on the first day of work; or

(ii) If the school employee's first day of work is at any other time during the school year, they are eligible for the employer contribution on that day.

(b) A school employee who is not anticipated to work at least six hundred thirty hours per school year becomes eligible for the employer contribution towards SEBB benefits on the date their work pattern is revised in such a way that they are now anticipated to work six hundred thirty hours in the school year.

(c) A school employee who is not anticipated to work at least six hundred thirty hours in the school year becomes eligible for the employer contribution towards SEBB benefits on the date they actually worked six hundred thirty hours in the school year.

(d) A school employee may establish eligibility for the employer contribution toward SEBB benefits by stacking of hours from multiple positions within one SEBB organization.

(4) When SEBB insurance coverage begins:

(a) For a school employee who establishes eligibility under subsection (3)(a)(i) of this section SEBB insurance coverage begins on the first day of work for the new school year.

(b) For a school employee who establishes eligibility under subsection (3)(a)(ii), (b), or (c) of this section SEBB insurance coverage begins on the first day of the month following the date the school employee becomes eligible for the employer contribution towards SEBB benefits.

#### NEW SECTION

**WAC 182-31-050 When does eligibility for the employer contribution for school employees benefits board (SEBB) benefits end?** (1) The employer contribution toward school employees benefits board (SEBB) benefits ends the last day of the month in which the school year ends. The employer contribution toward SEBB benefits will end earlier than the end of the school year if one of the following occurs:

(a) The SEBB organization terminates the employment relationship. In this case, eligibility for the employer contribution ends the last day of the month in which the employer-initiated termination notice is effective;

(b) The school employee terminates the employment relationship. In this case, eligibility for the employer contribution

ends the last day of the month in which the school employee's resignation is effective; or

(c) The school employee's work pattern is revised such that the school employee is no longer anticipated to work six hundred thirty hours during the school year. In this case, eligibility for the employer contribution ends as of the last day of the month in which the change is effective.

(2) If the SEBB organization deducted the school employee's premium for SEBB insurance coverage after the school employee was no longer eligible for the employer contribution, SEBB insurance coverage ends the last day of the month for which school employee premiums were deducted.

#### NEW SECTION

**WAC 182-31-060 Who is eligible to participate in the salary reduction plan?** School employees are eligible to participate in the salary reduction plan provided they are eligible for school employees benefits board (SEBB) benefits as described in WAC 182-31-040 and they elect to participate within the time frames described in WAC 182-30-100.

#### NEW SECTION

**WAC 182-31-090 When is an enrollee eligible to continue school employees benefits board (SEBB) health plan coverage under Consolidated Omnibus Budget Reconciliation Act (COBRA) and where may school employee survivors go for additional coverage options?** (1) An enrollee may continue school employees benefits board (SEBB) health plan coverage under the federal Consolidated Omnibus Budget Reconciliation Act (COBRA) by self-paying the premium and applicable premium surcharge set by the health care authority (HCA):

**Note:** Based on RCW 26.60.015 SEBB policy resolution SEBB 2018-01 a school employee's state registered domestic partner and the state registered domestic partner's children may continue SEBB insurance coverage on the same terms and conditions as a legal spouse or child under COBRA.

(a) The enrollee's election must be received by the SEBB program no later than sixty days from the date the enrollee's SEBB health plan coverage ended or from the postmark date on the election notice sent by the SEBB program, whichever is later;

(b) The enrollee's first premium payment and applicable premium surcharge are due to the HCA no later than forty-five days after the election period ends as described in (a) of this subsection. Following the enrollee's first premium payment, premiums and applicable premium surcharges must be paid as described in WAC 182-30-040;

(c) Enrollees who request to voluntarily terminate their COBRA coverage must do so in writing. The written termination request must be received by the SEBB program. Enrollees who terminate their COBRA coverage will not be eligible to reenroll in COBRA coverage unless they regain eligibility as described in WAC 182-31-040. COBRA coverage will end on the last day of the month in which the SEBB program receives the termination request. If the termination

request is received on the first day of the month, COBRA coverage will end on the last day of the previous month; and

(d) Medical flexible spending arrangement (FSA) enrollees who on the date of the qualifying event, have a greater number of remaining benefits than remaining contribution payments for the current year, will have an opportunity to continue making contributions to their medical FSA by electing COBRA. The enrollee's first premium payment is due to the contracted vendor no later than forty-five days after the election period ends as described below. The enrollee's election must be received by the contracted vendor no later than sixty days from the date the enrollee's SEBB health plan coverage ended or from the postmark date on the election notice sent by the contracted vendor, whichever is later.

(2) A school employee or a school employee's dependent who loses eligibility for the employer contribution toward SEBB insurance coverage and who qualifies for continuation coverage under COBRA may continue medical, dental, or both.

(3) A school employee or a school employee's dependent who loses eligibility for continuation coverage described in WAC 182-31-110 but who has not used the maximum number of months allowed under COBRA may continue medical, dental, or both for the remaining difference in months.

(4) A school employee's spouse, state registered domestic partner, or child who loses eligibility due to the death of an eligible school employee may be eligible to enroll or defer enrollment as a survivor under PEBB retiree insurance coverage as described in WAC 182-12-265.

#### NEW SECTION

**WAC 182-31-110 What options are available if a school employee is approved for the federal Family and Medical Leave Act (FMLA)?** (1) A school employee on approved leave under the federal Family and Medical Leave Act (FMLA) may continue to receive the employer contribution toward school employees benefits board (SEBB) insurance coverage in accordance with the federal FMLA. The school employee may also continue current supplemental life and supplemental long-term disability insurance. The school employee's SEBB organization is responsible for determining if the school employee is eligible for leave under FMLA and the duration of such leave.

(2) If a school employee's monthly premium or any applicable premiums surcharge remains unpaid for sixty days from the original due date, the school employee's SEBB insurance coverage will be terminated retroactive to the last day of the month for which the monthly premium and applicable premium surcharge was paid.

(3) If a school employee exhausts the period of leave approved under FMLA, SEBB insurance coverage may be continued by self-paying the premium and applicable premium surcharges set by the health care authority (HCA), with no contribution from the SEBB organization.

#### NEW SECTION

**WAC 182-31-140 Who are eligible dependents?** To be enrolled in a health plan, a dependent must be eligible

under this section and the subscriber must comply with enrollment procedures outlined in WAC 182-31-150.

The school employees benefits board (SEBB) program will verify the eligibility of all self-pay subscriber dependents and will request documents that provide evidence of a dependent's eligibility. The SEBB program reserves the right to review a dependent's eligibility at any time. All SEBB organizations will verify the eligibility of all school employee dependents and will request documents that provide evidence of a dependent's eligibility. The SEBB program and SEBB organizations will not enroll dependents into a health plan if they are unable to verify a dependent's eligibility within the SEBB program enrollment timelines.

A self-pay subscriber must notify the SEBB program, in writing, when their dependent is not eligible under this section. A school employee must notify their SEBB organization, in writing, when their dependent is not eligible under this section. The notification must be received no later than sixty days after the date their dependent is no longer eligible under this section. See WAC 182-31-150(2) for the consequences of not removing an ineligible dependent from SEBB insurance coverage.

The following are eligible as dependents:

(1) Legal spouse. Former spouses are not eligible dependents upon finalization of a divorce or annulment, even if a court order requires the subscriber to provide health insurance for the former spouse;

(2) State registered domestic partner. State registered domestic partner as defined in RCW 26.60.020(1) and substantially equivalent legal unions from other jurisdictions as defined in RCW 26.60.090. Former state registered domestic partners are not eligible dependents upon dissolution or termination of a partnership, even if a court order requires the subscriber to provide health insurance for the former partner;

(3) Children. Children are eligible through the last day of the month in which their twenty-sixth birthday occurred except as described in (f) of this subsection. Children are defined as the subscriber's:

(a) Children of the school subscriber based on establishment of a parent-child relationship as described in RCW 26.26.101, except when parental rights have been terminated;

(b) Children of the subscriber's spouse, based on the spouse's establishment of a parent-child relationship as described in RCW 26.26.101, except when parental rights have been terminated. The stepchild's relationship to the subscriber (and eligibility as a dependent) ends on the same date the marriage with the spouse ends through divorce, annulment, dissolution, termination, or death;

(c) Children of the subscriber's state registered domestic partner, based on the state registered domestic partner's establishment of a parent-child relationship as described in RCW 26.26.101, except when parental rights have been terminated. The child's relationship to the subscriber (and eligibility as a dependent) ends on the same date the subscriber's legal relationship with the state registered domestic partner ends through divorce, annulment, dissolution, termination, or death;

(d) Children for whom the subscriber has assumed a legal obligation for total or partial support in anticipation of adoption of the child;

(e) Children specified in a court order or divorce decree for whom the subscriber has a legal obligation to provide support or health care coverage;

(f) Children of any age with a developmental or physical disability that renders the child incapable of self-sustaining employment and chiefly dependent upon the subscriber for support and maintenance provided such conditions occurs before the age of twenty-six;

(i) The subscriber must provide proof of the disability and dependency within sixty days of the child's attainment of age twenty-six;

(ii) The subscriber must agree to notify the SEBB program, in writing, no later than sixty days after the date that the child is no longer eligible under this subsection;

(iii) A child with a developmental or physical disability who becomes self-supporting is not eligible under this subsection as of the last day of the month in which they become capable of self-support;

(iv) A child with a developmental or physical disability age twenty-six and older who becomes capable of self-support does not regain eligibility if they later become incapable of self-support; and

(v) The SEBB program with input from the applicable contracted vendor will periodically verify the eligibility of a dependent child with a disability beginning at age twenty-six, but no more frequently than annually after the two-year period following the child's twenty-sixth birthday, which may require renewed proof from the subscriber.

(g) Extended dependent in the legal custody or legal guardianship of the subscriber, the subscriber's spouse, or the subscriber's state registered domestic partner. The legal responsibility is demonstrated by a valid court order and the child's official residence with the custodian or guardian. Extended dependent child does not include a foster child unless the subscriber, the subscriber's spouse, or the subscriber's state registered domestic partner has assumed a legal obligation for total or partial support in anticipation of adoption.

#### NEW SECTION

**WAC 182-31-150 When may subscribers enroll or remove eligible dependents? (1) Enrolling dependents in school employees benefits board (SEBB) benefits.** A dependent must be enrolled in the same health plan coverage as the subscriber, and the subscriber must be enrolled in a medical plan to enroll their dependent. Subscribers must satisfy the enrollment requirements as described in subsection (5) of this section and may enroll eligible dependents at the following times:

(a) When the subscriber becomes eligible and enrolls in SEBB benefits. If eligibility is verified and the dependent is enrolled, the dependent's effective date will be the same as the subscriber's effective date, except if the subscriber enrolls a newborn child in supplemental dependent life insurance. The newborn child's dependent life insurance coverage will be effective on the date the child becomes fourteen days old;

(b) During the annual open enrollment. SEBB health plan coverage begins January 1st of the following year; or

(c) During special open enrollment. Subscribers may enroll dependents during a special open enrollment as described in subsections (3) and (5)(f) of this section.

#### **(2) Removing dependents from a subscriber's health plan coverage.**

(a) A dependent's eligibility for enrollment in health plan coverage ends the last day of the month the dependent fails to meet the eligibility criteria as described in WAC 182-31-140. Subscribers must notify their SEBB organization when a dependent is no longer eligible. Consequences for not submitting notice within sixty days of the last day of the month the dependent loses eligibility for health plan coverage may include, but are not limited to:

(i) The dependent may lose eligibility to continue health plan coverage under one of the continuation coverage options;

(ii) The subscriber may be billed for claims paid by the health plan for services that were rendered after the dependent lost eligibility;

(iii) The subscriber may not be able to recover subscriber-paid insurance premiums for dependents that lost their eligibility; and

(iv) The subscriber may be responsible for premiums paid by the SEBB organization for the dependent's health plan coverage after the dependent lost eligibility.

(b) School employees have the opportunity to remove eligible dependents:

(i) During the annual open enrollment. The dependent will be removed the last day of December; or

(ii) During a special open enrollment as described in subsections (3) and (5)(f) of this section.

(c) Enrollees with SEBB continuation coverage as described in WAC 182-31-090 may remove dependents from their SEBB insurance coverage outside of the annual open enrollment or a special open enrollment by providing written notice to the SEBB program. The dependent will be removed from the subscriber's SEBB insurance coverage prospectively. SEBB insurance coverage will end on the last day of the month in which the written notice is received by the SEBB program. If the written notice is received on the first day of the month, coverage will end on the last day of the previous month.

#### **(3) Special open enrollment.**

(a) Subscribers may enroll their eligible dependents or remove them outside of the annual open enrollment if a special open enrollment event occurs. The change in enrollment must be allowable under the Internal Revenue Code and Treasury Regulations, and correspond to and be consistent with the event that creates the special open enrollment for the subscriber, the subscriber's dependents, or both.

(i) Health plan coverage will begin the first of the month following the later of the event date or the date the required form is received. If that day is the first of the month, the change in enrollment begins on that day.

(ii) Enrollment of an extended dependent or a dependent with a disability will be the first day of the month following eligibility certification.

(iii) The dependent will be removed from the subscriber's health plan coverage the last day of the month following the later of the event date or the date the required form

and proof of the event is received. If that day is the first of the month, the change in enrollment will be made the last day of the previous month.

(iv) If the special open enrollment is due to the birth or adoption of a child, or when the subscriber has assumed a legal obligation for total or partial support in anticipation of adoption of a child, health plan coverage will begin or end as follows:

- For the newly born child, health plan coverage will begin the date of birth;
- For a newly adopted child health plan coverage will begin on the date of placement or the date a legal obligation is assumed in anticipation of adoption, whichever is earlier;
- For a spouse or state registered domestic partner of a subscriber, health plan coverage will begin the first day of the month in which the event occurs. The spouse or state registered domestic partner will be removed from health plan coverage the last day of the month in which the event occurred;

A newly born child must be at least fourteen days old before supplemental dependent life insurance coverage purchased by the employee becomes effective.

Any one of the following events may create a special open enrollment:

(b) Subscriber acquires a new dependent due to:

(i) Marriage or registering a domestic partnership on a state registry when the dependent is a tax dependent of the subscriber;

(ii) Birth, adoption, or when a subscriber has assumed a legal obligation for total or partial support in anticipation of adoption; or

(iii) A child becoming eligible as an extended dependent through legal custody or legal guardianship.

(c) Subscriber or a subscriber's dependent loses other coverage under a group health plan or through health insurance coverage, as defined by the Health Insurance Portability and Accountability Act (HIPAA);

(d) Subscriber has a change in employment status that affects the subscriber's eligibility for their employer contribution toward their employer-based group health plan;

(e) The subscriber's dependent has a change in their own employment status that affects their eligibility for the employer contribution under their employer-based group health plan;

(f) Subscriber or a subscriber's dependent has a change in enrollment under an employer-based group health plan during its annual open enrollment that does not align with the SEBB program's annual open enrollment;

(g) Subscriber's dependent has a change in residence from outside of the United States to within the United States, or from within the United States to outside of the United States;

(h) A court order requires the subscriber or any other individual to provide insurance coverage for an eligible dependent of the subscriber (a former spouse or former state registered domestic partner is not an eligible dependent);

(i) Subscriber or a subscriber's dependent becomes entitled to coverage under medicaid or a state children's health insurance program (CHIP), or the subscriber or a subscriber's dependent loses eligibility for coverage under medicaid or CHIP;

(j) Subscriber or a subscriber's dependent becomes eligible for state premium assistance subsidy for SEBB health plan coverage from medicaid or a state CHIP.

(4) For the purposes of special open enrollment "employer contribution" means contributions made by the dependent's current or former employer toward health coverage as described in Treasury Regulation 54.9801-6.

**(5) Enrollment requirements. A subscriber must submit the required forms within the time frames described in this subsection.** A school employee must submit the required forms to their SEBB organization, all other subscribers must submit the required forms to the SEBB program. In addition to the required forms indicating dependent enrollment, the subscriber must provide the required documents as evidence of the dependent's eligibility; or as evidence of the event that created the special open enrollment. All required forms and documents must be received within the relevant time frames.

(a) If a subscriber wants to enroll their eligible dependents when the subscriber becomes eligible to enroll in SEBB benefits, the subscriber must include the dependent's enrollment information on the required forms and submit them within the relevant time frame.

(b) If a subscriber wants to enroll eligible dependents during the SEBB annual open enrollment period, the required forms must be received no later than the last day of the annual open enrollment.

(c) If a subscriber wants to enroll newly eligible dependents, the required forms must be received no later than sixty days after the dependent becomes eligible except as provided in (d) of this subsection.

(d) If a subscriber wants to enroll a newborn or child whom the subscriber has adopted or has assumed a legal obligation for total or partial support in anticipation of adoption, the subscriber should notify the SEBB program by submitting the required form as soon as possible to ensure timely payment of claims. If adding the child increases the premium, the required form must be received no later than sixty days after the date of the birth, adoption, or the date the legal obligation is assumed for total or partial support in anticipation of adoption.

(e) If the subscriber wants to enroll a child age twenty-six or older as a child with a disability, the required forms must be received no later than sixty days after the last day of the month in which the child reaches age twenty-six or within the relevant time frame described in WAC 182-31-140 (3)(f). To recertify an enrolled child with a disability, the required forms must be received by the SEBB program or the contracted vendor by the child's scheduled SEBB coverage termination date.

(f) If the subscriber wants to change a dependent's enrollment status during a special open enrollment, required forms must be received no later than sixty days after the event that creates the special open enrollment.

#### NEW SECTION

**WAC 182-31-160 National Medical Support Notice (NMSN).** When a National Medical Support Notice (NMSN)

requires a subscriber to provide health plan coverage for a dependent child the following provisions apply:

(1) The subscriber may enroll their dependent child and request changes to their health plan coverage as described under subsection (3) of this section. School employees submit the required forms to their school employees benefits board (SEBB) organization. All other subscribers submit the required forms to the SEBB program;

(2) If the subscriber fails to request enrollment or health plan coverage changes as directed by the NMSN, the SEBB organization or the SEBB program may make enrollment or health plan coverage changes according to subsection (3) of this section upon request of:

- (a) The child's other parent; or
- (b) Child support enforcement program.

(3) Changes to health plan coverage or enrollment are allowed as directed by the NMSN:

(a) The dependent will be enrolled under the subscriber's health plan coverage as directed by the NMSN;

(b) A school employee who has waived SEBB medical as approved by the SEBB will be enrolled in medical as directed by the NMSN, in order to enroll the dependent;

(c) The subscriber's selected health plan will be changed if directed by the NMSN;

(d) If the dependent is already enrolled under another SEBB subscriber, the dependent will be removed from the other health plan coverage and enrolled as directed by the NMSN; or

(e) If the subscriber is eligible for and elects Consolidated Omnibus Budget Reconciliation Act (COBRA) or other continuation coverage, the NMSN will be enforced and the dependent must be covered in accordance with the NMSN.

(4) Changes to health plan coverage or enrollment as described in subsection (3)(a) through (c) of this section will begin the first day of the month following receipt of the NMSN. If the NMSN is received on the first day of the month, the change to health plan coverage or enrollment begins on that day. A dependent will be removed from the subscriber's health plan coverage as described in subsection (3)(d) of this section the last day of the month the NMSN is received. If that day is the first of the month, the change in enrollment will be made the last day of the previous month.

(5) The subscriber may be eligible to make changes to their health plan enrollment and salary reduction elections related to the NMSN as described in WAC 182-30-090 (1) and (2) or 182-31-150(3).

## Chapter 182-32 WAC

### APPEALS PRACTICES AND PROCEDURES

#### PART I

#### GENERAL PROVISIONS

#### NEW SECTION

**WAC 182-32-010 Purpose.** This chapter describes the general rules and procedures that apply to the health care authority's brief adjudicative proceedings and formal admin-

istrative hearings for the school employees benefits board (SEBB) program.

#### NEW SECTION

**WAC 182-32-020 Definitions.** The following definitions apply throughout this chapter unless the context clearly indicates another meaning:

"Appellant" means a person who requests a review by the SEBB appeals unit or a formal administrative hearing about the action of the SEBB organization, the HCA, or its contracted vendor.

"Authority" or "HCA" means the Washington state health care authority.

"Brief adjudicative proceeding" means the process described in RCW 34.05.482 through 34.05.494.

"Business days" means all days except Saturdays, Sundays, and all legal holidays as set forth in RCW 1.16.050.

"Calendar days" or "days" means all days including Saturdays, Sundays, and holidays.

"Continuance" means a change in the date or time of when a brief adjudicative proceeding or formal administrative hearing will occur.

"Contracted vendor" means any person, persons, or entity under contract or agreement with the HCA to provide goods or services for the provision or administration of SEBB benefits. The term contracted vendor includes subcontractors of the HCA and subcontractors of any person, persons, or entity under contract or agreement with the HCA that provide goods or services for the provision or administration of SEBB benefits.

"Denial" or "denial notice" means an action by, or communication from, either a school employees benefits board (SEBB) organization, contracted vendor, or the SEBB program that aggrieves a subscriber, a dependent, or an applicant, with regard to SEBB benefits including, but not limited to, actions or communications expressly designated as a "denial," "denial notice," or "cancellation notice."

"Dependent" means a person who meets eligibility requirements in WAC 182-31-140.

"Dependent care assistance program" or "DCAP" means a benefit plan whereby school employees may pay for certain employment related dependent care with pretax dollars as provided in the salary reduction plan pursuant to 26 U.S.C. Sec. 129 or other sections of the Internal Revenue Code.

"Director" means the director of the authority.

"Disability insurance" includes any basic long-term disability insurance paid for by the school employees benefits board (SEBB) organization and any supplemental long-term disability or supplemental short-term disability paid for by the employee.

"Documents" means papers, letters, writings, electronic mail, electronic files, or other printed or written items. Documents include evidence needed to verify eligibility for SEBB benefits and complete the enrollment process.

"Employer contribution" means the funding amount paid to the HCA by a school employees benefits board (SEBB) organization for its eligible school employees as described under WAC 182-31-060.

"Employer-paid coverage" means SEBB insurance coverage for which an employer contribution is made by a SEBB organization for school employees eligible in WAC 182-31-060.

"Enrollee" means a person who meets all eligibility requirements defined in chapter 182-31 WAC, who is enrolled in SEBB benefits, and for whom applicable premium payments have been made.

"File" or "filing" means the act of delivering documents to the office of the presiding officer, review officer, or hearing officer. A document is considered filed when it is received by the health care authority or its designee.

"Final order" means an order that is the final health care authority decision.

"Formal administrative hearing" means a proceeding before a hearing officer that gives an appellant an opportunity for an evidentiary hearing as described in RCW 34.05.413 through 34.05.479.

"HCA hearing representative" means a person who is authorized to represent the SEBB program in a formal administrative hearing. The person may be an assistant attorney general or authorized HCA employee.

"Health plan" means a plan offering medical, dental, or any combination of these coverages, developed by the school employees benefits board and provided by a contracted vendor or self-insured plans administered by the HCA.

"Hearing officer" means an impartial decision maker who presides at a formal administrative hearing, and is:

- A director-designated HCA employee; or
- When the director has designated the office of administrative hearings (OAH) as a hearing body, an administrative law judge employed by the OAH.

"Life insurance" for eligible school employees includes any basic life insurance and accidental death and dismemberment (AD&D) insurance paid for by the school employees benefits board (SEBB) organization, as well as supplemental life insurance and supplemental AD&D insurance offered to and paid for by school employees for themselves and their dependents.

"LTD insurance" or "long-term disability insurance" includes any basic long-term disability insurance paid for by the school employees benefits board (SEBB) organization and any supplemental long-term disability insurance offered to and paid for by the school employee.

"Medical flexible spending arrangement" or "medical FSA" means a benefit plan whereby school employees may reduce their salary before taxes to pay for medical expenses not reimbursed by insurance as provided in the salary reduction plan under this chapter pursuant to 26 U.S.C. Sec. 125 or other sections of the Internal Revenue Code.

"Prehearing conference" means a proceeding scheduled and conducted by a hearing officer to address issues in preparation for a formal administrative hearing.

"Premium payment plan" means a benefit plan whereby school employees may pay their share of group health plan premiums with pretax dollars as provided in the salary reduction plan.

"Premium surcharge" means a payment required from a subscriber, in addition to the subscriber's medical premium contribution, due to an enrollee's tobacco use or an enrolled

subscriber's spouse or state registered domestic partner choosing not to enroll in their employer-based group medical when:

- The spouse's or state registered domestic partner's share of the medical premiums is less than ninety-five percent of the additional cost an employee would be required to pay to enroll a spouse or state registered domestic partner in the public employees benefits board (PEBB) Uniform Medical Plan (UMP) Classic; and
- The benefits have an actuarial value of at least ninety-five percent of the actuarial value of PEBB UMP Classic benefits.

"Presiding officer" means an impartial decision maker who conducts a brief adjudicative proceeding and is a director-designated HCA employee.

"Review officer or officers" means one or more delegates from the director that consider appeals relating to the administration of SEBB benefits by the SEBB program.

"Salary reduction plan" means a benefit plan whereby school employees may agree to a reduction of salary on a pre-tax basis to participate in the dependent care assistance program (DCAP), medical flexible spending arrangement (FSA), or premium payment plan offered pursuant to 26 U.S.C. Sec. 125 or other sections of the Internal Revenue Code.

"School employee" means all employees of school districts, educational service districts, and charter schools established under chapter 28A.710 RCW.

"School employees benefits board organization" or "SEBB organization" means a public school district or educational service district or charter school established under chapter 28A.710 RCW that is required to participate in benefit plans provided by the school employees benefit board.

"SEBB" means the school employees benefits board established in RCW 41.05.740.

"SEBB benefits" means one or more insurance coverages or other employee benefits administered by the SEBB program within the HCA.

"SEBB insurance coverage" means any health plan, life insurance, disability insurance administered as a SEBB benefit.

"SEBB program" means the program within the HCA that administers insurance and other benefits for eligible school employees (as described in WAC 182-31-040), and eligible dependents (as described in WAC 182-31-140).

"State registered domestic partner," has the same meaning as defined in RCW 26.60.020(1) and substantially equivalent legal unions from other jurisdictions as defined in RCW 26.60.090.

"Subscriber" means the school employee or continuation coverage enrollee who has been determined eligible by the SEBB program or SEBB organizations and is the individual to whom the SEBB program and contracted vendors will issue all notices, information, requests, and premium bills on behalf of an enrollee.

"Tobacco products" means any product made with or derived from tobacco that is intended for human consumption, including any component, part, or accessory of a tobacco product. This includes, but is not limited to, cigars, cigarettes, pipe tobacco, chewing tobacco, snuff, and other

tobacco products. It does not include e-cigarettes or United States Food and Drug Administration (FDA) approved quit aids.

"Tobacco use" means any use of tobacco products within the past two months. Tobacco use, however, does not include the religious or ceremonial use of tobacco.

#### NEW SECTION

**WAC 182-32-055 Mailing address changes.** (1) During the appeal process, if the appellant's mailing address changes, the appellant must notify the school employees benefits board (SEBB) appeals unit as soon as possible.

(2) If the appellant does not notify the SEBB appeals unit of a change in the appellant's mailing address and the SEBB appeals unit continues to serve notices and other important documents to the appellant's last known mailing address, the documents will be deemed served on the appellant.

(3) This requirement to provide notice of an address change is in addition to WAC 182-30-075 that require a subscriber to update their address with the SEBB appeals unit.

#### NEW SECTION

**WAC 182-32-058 Service or serve.** (1) When the rules in this chapter or in other school employees benefits board (SEBB) program rules or statutes require a party to serve copies of documents on other parties, a party must send copies of the documents to all other parties or their representatives as described in this chapter. In this section, requirements for service or delivery by a party apply also when service is required by the presiding officer or review officer or officers, or hearing officer.

(2) Unless otherwise stated in applicable law, documents may be sent only as identified in this chapter to accomplish service. A party may serve someone by:

(a) Personal service (hand delivery);

(b) First class, registered, or certified mail sent via the United States Postal Service or Washington state consolidated mail services;

(c) Fax;

(d) Commercial delivery service; or

(e) Legal messenger service.

(3) A party must serve all other parties or their representatives whenever the party files a motion, pleading, brief, or other document with the presiding officer, review officer or officers, or hearing officer's office, or when required by law.

(4) Service is complete when:

(a) Personal service is made;

(b) Mail is properly stamped, addressed, and deposited in the United States Postal Service;

(c) Mail is properly addressed, and deposited in the Washington state consolidated mail services;

(d) Fax produces proof of transmission;

(e) A parcel is delivered to a commercial delivery service with charges prepaid; or

(f) A parcel is delivered to a legal messenger service with charges prepaid.

(5) A party may prove service by providing any of the following:

(a) A signed affidavit or certificate of mailing;

(b) The certified mail receipt signed by the person who received the parcel;

(c) A signed receipt from the person who accepted the commercial delivery service or legal messenger service parcel;

(d) Proof of fax transmission.

(6) Service cannot be made by electronic mail unless mutually agreed to in advance and in writing by the parties.

(7) If the document is a subpoena, follow the compliance procedure as described in WAC 182-32-3130.

#### NEW SECTION

**WAC 182-32-064 Applicable rules and laws.** A presiding officer, review officer or officers, or hearing officer must first apply the applicable school employees benefits board (SEBB) program rules adopted in the Washington Administrative Code (WAC). If no SEBB program rule applies, the presiding officer, review officer or officers, or hearing officer must decide the issue according to the best legal authority and reasoning available, including federal and Washington state constitutions, statutes, regulations, significant decisions indexed as described in WAC 182-32-130, and court decisions.

#### NEW SECTION

**WAC 182-32-066 Burden of proof, standard of proof, and presumptions.** (1) The burden of proof is a party's responsibility to provide evidence regarding disputed facts and persuade the presiding officer, review officer or officers, or hearing officer that a position is correct based on the standard of proof.

(2) Standard of proof refers to the amount of evidence needed to prove a party's position. Unless stated otherwise in rules or law, the standard of proof in a brief adjudicative proceeding or formal administrative hearing is a preponderance of the evidence, meaning that something is more likely to be true than not.

(3) Public officers and school employees benefits board (SEBB) organizations are presumed to have properly performed their duties and acted as described in the law, unless substantial evidence to the contrary is presented. A party challenging this presumption bears the burden of proof.

#### NEW SECTION

**WAC 182-32-120 Computation of time.** (1) In computing any period of time prescribed by this chapter, the day of the event from which the time begins to run is not included. (For example, if an initial order is served on Friday and the party has twenty-one days to request a review, start counting the days with Saturday.)

(2) Except as provided in subsection (3) of this section, the last day of the period so computed is included unless it is a Saturday, Sunday, or legal holiday as defined in RCW 1.16.050, in which case the period extends to the end of the next business day.

(3) When the period of time prescribed or allowed is less than ten days, intermediate Saturdays, Sundays and legal holidays shall be excluded in the computation.

(4) The deadline is 5:00 p.m. on the last day of the computed period.

#### NEW SECTION

**WAC 182-32-130 Index of significant decisions.** (1) A final decision may be relied upon, used, or cited as precedent by a party if the final order has been indexed in the authority's index of significant decisions in accordance with RCW 34.05.473 (1)(b).

(2) An index of significant decisions is available to the public on the health care authority's (HCA) web site. As decisions are indexed they will be available on the web site.

(3) A final decision published in the index of significant decisions may be removed from the index when:

(a) A published decision entered by the court of appeals or the supreme court reverses an indexed final decision; or

(b) HCA determines that the indexed final decision is no longer precedential due to changes in statute, rule, or policy.

## PART II

### BRIEF ADJUDICATIVE PROCEEDINGS

#### NEW SECTION

**WAC 182-32-2000 Brief adjudicative proceedings.** Pursuant to RCW 34.05.482, the authority will use brief adjudicative proceedings for issues identified in this chapter when doing so would not violate law, or when protection of the public interest does not require the authority to give notice and an opportunity to participate to persons other than the parties, or the issue and interests involved in the controversy do not warrant use of the procedures of RCW 34.05.413 through 34.05.479 which govern formal administrative hearings.

#### NEW SECTION

**WAC 182-32-2005 Record—Brief adjudicative proceeding.** The record in a brief adjudicative proceeding consists of any documents regarding the matter, considered or prepared by the presiding officer for the brief adjudicative proceeding or by the review officer or officers for any review. The authority's record does not have to constitute the exclusive basis for agency action, unless otherwise required by law.

#### NEW SECTION

**WAC 182-32-2010 Appealing a decision regarding eligibility, enrollment, premium payments, premium surcharges, or the administration of school employees benefits board (SEBB) benefits.** (1) Any current or former school employee of a school employees benefits board (SEBB) organization or their dependent aggrieved by a decision made by the SEBB organization with regard to SEBB eligibility, enrollment, or premium surcharges may appeal that decision to the SEBB organization by the process outlined in WAC 182-32-2020.

**Note:** Eligibility decisions address whether a subscriber or a subscriber's dependent is entitled to SEBB insurance coverage, as described in SEBB rules and policies. Enrollment decisions address the application for SEBB benefits as described in SEBB rules and policies including, but not limited to, the submission of proper documentation and meeting enrollment deadlines.

(2) Any subscriber or dependent aggrieved by a decision made by the SEBB program with regard to SEBB eligibility, enrollment, premium payments, or premium surcharges may appeal that decision to the SEBB appeals unit by the process described in WAC 182-32-2030.

(3) Any enrollee aggrieved by a decision regarding the administration of a health plan, life insurance, disability insurance, or property and casualty insurance may appeal that decision by following the appeal provisions of those plans, with the exception of:

(a) Enrollment decisions;

(b) Premium payment decisions other than life insurance premium payment decisions; and

(c) Eligibility decisions.

(4) Any school employee aggrieved by a decision regarding the administration of a benefit offered under the salary reduction plan may appeal that decision by the process described in WAC 182-32-2050.

#### NEW SECTION

**WAC 182-32-2020 Appealing a decision made by a school employees benefits board (SEBB) organization about eligibility, premium surcharge, or enrollment in benefits.** (1) An eligibility, premium surcharge, or enrollment decision made by a school employees benefits board (SEBB) organization may be appealed by submitting a written request for administrative review to the SEBB organization. The SEBB organization must receive the request for administrative review no later than thirty days after the date of the denial notice. The contents of the request for administrative review are to be provided as described in WAC 182-32-2070.

(a) Upon receiving the request for administrative review, the SEBB organization shall perform a complete review of the denial by one or more staff who did not take part in the decision resulting in the denial.

(b) The SEBB organization shall render a written decision within thirty days of receiving the written request for administrative review. The written decision shall be sent to the school employee or school employee's dependent who submitted the request for administrative review and must include description of the appeal rights. The SEBB organization shall also send a copy of the SEBB organization's written decision to the SEBB organization's administrator (or designee) and to the SEBB appeals unit. If the SEBB organization fails to render a written decision within thirty days of receiving the written request for administrative review, the request for administrative review may be considered denied and the original underlying SEBB organization decision may be appealed to the SEBB appeals unit by following the process in this section.

(c) The SEBB organization may reverse eligibility, premium surcharge, or enrollment decisions based only on circumstances that arose due to delays caused by the SEBB organization or errors made by the SEBB organization.

(2) Any current or former school employee or school employee's dependent who disagrees with the SEBB organization's decision in response to a request for administrative review, as described in subsection (1) of this section, may request a brief adjudicative proceeding to be conducted by the authority by submitting a request to the SEBB appeals unit.

(a) The SEBB appeals unit must receive the request for a brief adjudicative proceeding no later than thirty days after the date of the SEBB organization's written decision on the request for administrative review. The contents of the request for a brief adjudicative proceeding are to be provided as described in WAC 182-32-2070.

(i) The SEBB appeals unit shall notify the appellant in writing when the request for a brief adjudicative proceeding has been received.

(ii) Once the SEBB appeals unit receives a request for a brief adjudicative proceeding, the SEBB appeals unit will send a request for documentation and information to the applicable SEBB organization. The SEBB organization will then have two business days to respond to the request and provide the requested documentation and information. The SEBB organization will also send a copy of the documentation and information to the employee, former employee, or the employee's dependent.

(iii) The brief adjudicative proceeding will be conducted by a presiding officer designated by the director.

(b) If a school employee fails to timely request a brief adjudicative proceeding to appeal the SEBB organization's written decision within thirty days by following the process in subsection (2) of this section, the SEBB organization's prior decision becomes the health care authority's final decision.

#### NEW SECTION

**WAC 182-32-2030 Appealing a school employees benefits board (SEBB) program decision regarding eligibility, enrollment, premium payments, and premium surcharges.** (1) A decision made by the school employees benefits board (SEBB) program regarding eligibility, enrollment, premium payments, or premium surcharges may be appealed by submitting a request to the SEBB appeals unit for a brief adjudicative proceeding to be conducted by the authority.

(2) The contents of the request for a brief adjudicative proceeding are to be provided as described in WAC 182-32-2070.

(3) The request for a brief adjudicative proceeding from a current or former school employee or school employee's dependent must be received by the SEBB appeals unit no later than thirty days after the date of the denial notice.

(4) The request for a brief adjudicative proceeding from a self-pay enrollee or dependent of self-pay enrollee must be received by the SEBB appeals unit no later than sixty days after the date of the denial notice.

(5) The SEBB appeals unit shall notify the appellant in writing when the request for a brief adjudicative proceeding has been received.

(6) The brief adjudicative proceeding will be conducted by a presiding officer designated by the director.

(7) Failing to timely request a brief adjudicative proceeding to appeal a decision made under this section within applicable time frames described in subsections (3) and (4) of this section, will result in the prior decision becoming the authority's final decision without further action.

#### NEW SECTION

**WAC 182-32-2050 How can a school employee appeal a decision regarding the administration of benefits offered under the salary reduction plan?** (1) Any school employee who disagrees with a decision that denies eligibility for, or enrollment in, a benefit offered under the salary reduction plan may appeal that decision by submitting a written request for administrative review to their school employees benefits board (SEBB) organization. The SEBB organization must receive the written request for administrative review no later than thirty days after the date of the decision resulting in denial. The contents of the written request for administrative review are to be provided as described in WAC 182-32-2070.

(a) Upon receiving the written request for administrative review, the SEBB organization shall perform a complete review of the denial by one or more staff who did not take part in the decision resulting in the denial.

(b) The SEBB organization shall render a written decision within thirty days of receiving the written request for administrative review. The written decision shall be sent to the school employee who submitted the written request for review and must include a description of appeal rights. The SEBB organization shall also send a copy of the SEBB organization's written decision to the SEBB organization's administrator (or designee) and to the SEBB appeals unit. If the SEBB organization fails to render a written decision within thirty days of receiving the written request for administrative review, the request for administrative review may be considered denied and the original underlying SEBB organization decision may be appealed to the SEBB appeals unit by following the process in this section.

(2) Any school employee who disagrees with the SEBB organization's decision in response to a written request for administrative review, as described in this section, may request a brief adjudicative proceeding to be conducted by the authority by submitting a written request to the SEBB appeals unit.

(a) The SEBB appeals unit must receive the request for a brief adjudicative proceeding no later than thirty days after the date of the SEBB organization's written decision on the request for administrative review. The contents of the request for a brief adjudicative proceeding are to be provided as described in WAC 182-32-2070.

(i) The SEBB appeals unit shall notify the appellant in writing when the request for a brief adjudicative proceeding has been received.

(ii) Once the SEBB appeals unit receives a request for a brief adjudicative proceeding, the SEBB appeals unit will send a request for documentation and information to the applicable SEBB organization. The SEBB organization will then have two business days to respond to the request. The SEBB organization will also send a copy of the documentation and information to the school employee.

(iii) The brief adjudicative proceeding will be conducted by a presiding officer designated by the director.

(b) If a school employee fails to timely request a brief adjudicative proceeding to appeal a decision made under this section within thirty days by following the process described in this subsection, the SEBB organization's prior written decision becomes the authority's final decision without further action by the authority.

(3) Any school employee aggrieved by a decision regarding a claim for benefits under the medical flexible spending arrangement (FSA) or dependent care assistance program (DCAP) offered under the salary reduction plan may appeal that decision to the HCA contracted vendor by following the appeal process of that contracted vendor.

(a) Any school employee who disagrees with a decision in response to an appeal filed with the contracted vendor that administers the medical FSA and DCAP under the salary reduction plan may request a brief adjudicative proceeding by submitting a written request to the SEBB appeals unit. The SEBB appeals unit must receive the request for a brief adjudicative proceeding no later than thirty days after the date of the contracted vendor's appeal decision. The contents of the request for a brief adjudicative proceeding are to be provided as described in WAC 182-32-2070.

(i) The SEBB appeals unit shall notify the appellant in writing when the request for a brief adjudicative proceeding has been received.

(ii) The brief adjudicative proceeding will be conducted by a presiding officer designated by the director.

(b) If a school employee fails to timely request a brief adjudicative proceeding to appeal a decision made under this section within thirty days by following the process described in this subsection, the contracted vendor's prior written decision becomes the health care authority (HCA) final decision.

(4) Any school employee aggrieved by a decision regarding the administration of the premium payment plan offered under the salary reduction plan may request a brief adjudicative proceeding to be conducted by the HCA by submitting a written request to the SEBB appeals unit for a brief adjudicative proceeding.

(a) The SEBB appeals unit must receive the request for a brief adjudicative proceeding no later than thirty days after the date of the denial notice by the SEBB program. The contents of the request for a brief adjudicative proceeding are to be provided as described in WAC 182-16-2070.

(i) The SEBB appeals unit shall notify the appellant in writing when the notice of appeal has been received.

(ii) The brief adjudicative proceeding will be conducted by a presiding officer designated by the director.

(b) If a school employee fails to timely request a brief adjudicative proceeding to appeal a decision made under this section within thirty days by following the process described

in this subsection, the SEBB program's written decision becomes the authority's final decision.

#### NEW SECTION

**WAC 182-32-2070 What should a written request for administrative review and a request for brief adjudicative proceeding contain?** A written request for administrative review of the school employees benefits board (SEBB) organization's decision and a request for brief adjudicative proceeding should contain:

(1) The name and mailing address of the party requesting an administrative review or the brief adjudicative proceeding;

(2) The name and mailing address of the appealing party's representative, if any;

(3) Documentation, or reference to documentation, of decisions previously rendered through the appeal process, if any;

(4) A statement identifying the specific portion of the decision being appealed and clarifying what is believed to be unlawful or in error;

(5) A statement of facts in support of the appealing party's position;

(6) Any information or documentation that the appealing party would like considered;

(7) The type of relief sought; and

(8) The signature of the appealing party or the appealing party's representative.

#### NEW SECTION

**WAC 182-32-2080 Who can appeal or represent a party in a brief adjudicative proceeding?** (1) The appellant may act as their own representative or may choose to be represented by another person, except employees of the health care authority (HCA) or HCA's authorized agents.

(2) If the appellant is represented by a person who is not an attorney admitted to practice in Washington state, the representative must provide the presiding officer and other parties with the representative's name, address, and telephone number. In cases involving confidential information, the non-attorney representative must provide the school employees benefits board (SEBB) appeals unit and other parties with a signed, written consent permitting release to the nonattorney representative of the appellant's personal health information protected by state or federal law.

(3) An attorney admitted to practice law in Washington state representing the appellant must file a written notice of appearance containing the attorney's name, address, and telephone number with the presiding officer's office and serve all parties with the notice. In cases involving confidential information, the attorney must provide the SEBB appeals unit and other parties with a signed, written consent permitting release to the attorney of the appellant's personal health information protected by state or federal law. If the appellant's attorney representative no longer represents the appellant, then the attorney must file a written notice of withdrawal of representation with the presiding officer or review officer or officer's office and serve all parties with the notice.

NEW SECTION

**WAC 182-32-2085 Continuances.** The presiding officer, review officer or officers may grant in their sole discretion, a request for a continuance on motion of the appellant, the authority, or on its own motion. The continuance may be up to thirty calendar days.

NEW SECTION

**WAC 182-32-2090 Initial order.** Unless a continuance has been granted, within ten days after the school employees benefits board (SEBB) appeals unit receives a request for a brief adjudicative proceeding, the presiding officer shall render a written initial order that addresses the issue or issues raised by the appellant in their appeal. The presiding officer shall serve a copy of the initial order on all parties and the initial order shall contain information on how the appellant may request review of the initial order.

NEW SECTION

**WAC 182-32-2100 How to request a review of an initial order resulting from a brief adjudicative proceeding.**

(1) An appellant who has received an initial order upholding a school employees benefits board (SEBB) organization decision, SEBB program decision, or a decision made by SEBB program contracted vendor, may request review of the initial order by the authority. The appellant must file a written request for review of the initial order or make an oral request for review of the initial order with the SEBB appeals unit within twenty-one days after service of the initial order. The written request for review of the initial order must be provided using the contact information included in the initial order. If the appellant fails to request review of the initial order within twenty-one days, the order becomes the final order without further action by the authority.

(2) Upon timely request by the appellant, a review of an initial order will be performed by one or more review officers designated by the director of the authority.

(3) If the appellant have not requested review, the authority may review an order resulting from a brief adjudicative proceeding on its own motion, and without notice to the parties, but it may not take action on review less favorable to any party than the initial order without giving that party notice and an opportunity to explain that party's view of the matter.

NEW SECTION

**WAC 182-32-2105 Withdrawing the request for a brief adjudicative proceeding or review of an initial order.**

(1) The appellant may withdraw the request for a brief adjudicative proceeding or review of an initial order for any reason, and at any time, by contacting the school employees benefits board (SEBB) appeals unit. The SEBB appeals unit will present the withdrawal request to the presiding officer or review officer or officers.

(2) The request for withdrawal must be made in writing.

(3) After a withdrawal request is received, the presiding officer or review officer or officers must enter and serve a written order dismissing the appeal.

(4) If an appellant withdraws a request for a brief adjudicative proceeding or review of an initial order, the appellant may not reinstate the request for a brief adjudicative proceeding or review of an initial order unless time remains on their original appeal period.

NEW SECTION

**WAC 182-32-2110 Final order.** (1) A final order issued by the review officer or officers will be issued in writing and include a brief statement of the reasons for the decision.

(2) The final order must be rendered and served within twenty days of the date of the initial order or of the date the request for review of the initial order was received by the SEBB appeals unit, whichever is later.

(3) The final order will include a notice that reconsideration and judicial review may be available.

(4) A request for review of the initial order is deemed denied if the authority does not issue a final order within twenty days after the request for review of the initial order is filed.

NEW SECTION

**WAC 182-32-2120 Request for reconsideration.** (1) A request for reconsideration asks the review officer or officers to reconsider the final order because the party believes the review officer or officers made a mistake of law, mistake of fact, or clerical error.

(2) A request for reconsideration must state in writing why the party wants the final order to be reconsidered.

(3) Requests for reconsideration must be filed with the review officer or officers who entered the final order.

(4) If a party files a request for reconsideration:

(a) The review officer or officers must receive the request for reconsideration on or before the tenth business day after the service date of the final order;

(b) The party filing the request must send copies of the request to all other parties; and

(c) Within five business days of receiving a request for reconsideration, the review officer or officers must serve to all parties a notice that provides the date the request for reconsideration was received.

(5) The other parties may respond to the request for reconsideration. The response must state in writing why the final order should stand. Responses are optional. If a party chooses not to respond, that party will not be prejudiced because of that choice.

(a) Responses to a request for reconsideration must be received by the review officer or officers no later than seven business days after the service date of the review officer or officers' notice as described in subsection (4)(c) of this section, or the response will not be considered.

(b) Service of responses to a request for reconsideration must be made to all parties.

(6) If a party needs more time to file a request for reconsideration or respond to a request for reconsideration, the

review officer or officers may extend the required time frame if the party makes a written request providing a good reason for the request within the required time frame.

(7) Unless the request for reconsideration is denied as untimely filed under subsection (4)(a) of this section, the same review officer or officers who entered the final order, if reasonably available, will also consider the request as well as any responses received.

(8) The decision on the request for reconsideration must be in the form of a written order denying the request, granting the request in whole or in part and issuing a new written final order, or granting the petition and setting the matter for further hearing.

(9) If the review officer or officers do not send an order on the request for reconsideration within twenty calendar days of the date of the notice described in subsection (4)(c) of this section, the request is deemed denied.

(10) If any party files a request for reconsideration of the final order, the reconsideration process must be completed before any judicial review may be requested. However, the filing of a petition for reconsideration is not required before requesting judicial review.

(11) An order denying a request for reconsideration is not subject to judicial review.

(12) No evidence may be offered in support of a motion for reconsideration, except newly discovered evidence that is material for the party moving for reconsideration and that the party could not with reasonable diligence have discovered and produced at the hearing or before the ruling on a dispositive motion.

#### NEW SECTION

**WAC 182-32-2130 Judicial review of final order.** (1) Judicial review is the process of appealing a final order to a court.

(2) The appellant may appeal a final order by filing a written petition for judicial review that meets the requirements of RCW 34.05.546. The school employees benefits board (SEBB) program may not request judicial review.

(3) The appellant should consult RCW 34.05.510 through 34.05.598 for further details and requirements of the judicial review process.

#### NEW SECTION

**WAC 182-32-2140 Presiding officer—Designation and authority.** The designation of a presiding officer shall be consistent with the requirements of RCW 34.05.485 and the presiding officer shall not have personally participated in the decision made by the school employees benefits board (SEBB) organization or SEBB program.

(1) The presiding officer will decide the issue based on the information provided by the parties during the presiding officer's review of the appeal.

(2) A presiding officer is limited to those powers granted by the state constitution, statutes, rules, or applicable case law.

(3) A presiding officer may not decide that a rule is invalid or unenforceable.

(4) In addition to the record, the presiding officer may employ the authority's expertise as a basis for the decision.

#### NEW SECTION

**WAC 182-32-2150 Review officer or officers—Designation and authority.** (1) The designation of a review officer or officers shall be consistent with the requirements of RCW 34.05.491 and the review officer or officers shall not have personally participated in the decision made by the school employees benefits board (SEBB) organization or SEBB program.

(2) The review officer or officers shall review the initial order and the record to determine if the initial order was correctly decided.

(3) The review officer or officers will issue a final order that will either:

- (a) Affirm the initial order in whole or in part; or
- (b) Reverse the initial order in whole or in part; or
- (c) Refer the matter for a formal administrative hearing;

or

- (d) Remand to the presiding officer in whole or in part.

(4) A review officer or officers are limited to those powers granted by the state constitution, statutes, rules, or applicable case law.

(5) A review officer or officers may not decide that a rule is invalid or unenforceable.

(6) In addition to the record, the review officer or officers may employ the authority expertise as a basis for the decision.

#### NEW SECTION

**WAC 182-32-2160 Conversion of a brief adjudicative proceeding to a formal administrative hearing.** (1) The presiding officer or the review officer or officers, in their sole discretion, may convert a brief adjudicative proceeding to a formal administrative hearing at any time on motion by the subscriber or enrollee or their representative, the authority, or on the presiding officer or review officer or officers' own motion.

(2) The presiding or review officer or officers must convert the brief adjudicative proceeding to a formal administrative hearing when it is found that the use of the brief adjudicative proceeding violates any provision of law, when the protection of the public interest requires the authority to give notice and an opportunity to participate to persons other than the parties, or when the issues and interests involved in the controversy warrant the use of the procedures or RCW 34.05.413 through 34.05.479 that govern formal administrative hearings.

(3) When a brief adjudicative proceeding is converted to a formal administrative hearing, the director may become the hearing officer or may designate a replacement hearing officer to conduct the formal administrative hearing upon notice to the subscriber or enrollee and the authority.

(4) When a brief adjudicative proceeding is converted to a formal administrative hearing, WAC 182-32-010 through 182-32-130 and WAC 182-32-3000 through 182-32-3200 apply to the formal administrative hearing.

## PART III

## FORMAL ADMINISTRATIVE HEARINGS

NEW SECTION**WAC 182-32-3000 Formal administrative hearings.**

(1) When a brief adjudicative proceeding is converted to a formal administrative hearing consistent with WAC 182-32-3160, the director designates a hearing officer to conduct the formal administrative hearing.

(2) Formal administrative hearings are conducted consistent with the Administrative Procedure Act, RCW 34.05.413 through 34.05.479.

(3) Part III describes the general rules and procedures that apply to school employees benefits board (SEBB) benefits formal administrative hearings.

(a) This Part III supplements the Administrative Procedure Act (APA), chapter 34.05 RCW, and the model rules of procedure in chapter 10-08 WAC. The model rules of procedure adopted by the chief administrative law judge pursuant to RCW 34.05.250, as now or hereafter amended, are hereby adopted for use by the authority in SEBB benefits formal administrative hearings. Other procedural rules adopted in chapters 182-30, 182-31, and 182-32 WAC are supplementary to the model rules of procedure.

(b) In the case of a conflict between the model rules of procedure and this Part III, the procedural rules adopted in this Part III shall govern.

(c) If there is a conflict between this Part III and specific SEBB program rules, the specific SEBB program rules prevail. SEBB program rules are found in chapters 182-30 and 182-31 WAC.

(d) Nothing in this Part III is intended to affect the constitutional rights of any person or to limit or change additional requirements imposed by statute or other rule. Other laws or rules determine if a hearing right exists, including the APA and program rules or laws.

NEW SECTION

**WAC 182-32-3005 Record—Formal administrative hearings.** The record in a formal administrative hearing consists of the official documentation of the hearing process. The record includes, but is not limited to, recordings or transcripts, admitted exhibits, decisions, briefs, notices, orders, and other filed documents.

NEW SECTION**WAC 182-32-3010 Requirements to appear and represent a party in the formal administrative hearing process.**

(1) All parties must provide the hearing officer and all other parties with their name, address, and telephone number.

(2) The appellant may act as their own representative or have another person represent them, except employees of the health care authority (HCA) or HCA's authorized agents.

(3) If the appellant is represented by a person who is not an attorney admitted to practice in Washington state, the representative must provide the hearing officer and all other parties with the representative's name, address, and telephone

number. In cases involving confidential information, the non-attorney representative must provide the HCA hearing representative with a signed, written consent permitting release to the nonattorney representative of personal health information protected by state or federal law.

(4) An attorney admitted to practice law in Washington state, who wishes to represent the appellant, must file a written notice of appearance containing the attorney's name, address, and telephone number with the hearing officer's office and serve all parties with the notice. In cases involving confidential information, the attorney representative must provide the HCA hearing representative with a signed, written consent permitting release to the attorney representative of the appellant's personal health information protected by state or federal law. If the appellant's attorney representative no longer represents the appellant, then the attorney must file a written notice of withdrawal of representation with the hearing officer's office and serve all parties with the notice.

NEW SECTION**WAC 182-32-3015 Hearing officers—Assignment, motions of prejudice, and disqualification.**

(1) **Assignment:** A hearing officer will be assigned at least five business days before a hearing. A party may ask which hearing officer is assigned to a hearing by contacting the hearing officer's office listed on the notice of hearing. If requested by a party, the hearing officer's office must send the name of the assigned hearing officer to all parties, by electronic mail or in writing, at least five business days before the scheduled hearing date.

(2) **Motion of prejudice:** Any party requesting a different hearing officer may file a written motion of prejudice against the hearing officer assigned to the matter before the hearing officer rules on a discretionary issue in the case, admits evidence, or takes testimony.

(a) A motion of prejudice must include a declaration stating that a party does not believe the hearing officer can hear the case fairly. Service of copies of the motion must also be made to all parties listed on the notice of hearing.

(b) Any party's first motion of prejudice will be automatically granted. Any subsequent motion of prejudice made by a party may be granted or denied at the discretion of the hearing officer no later than seven days after receiving the motion.

(c) A party may make an oral motion of prejudice at the beginning of a hearing before the hearing officer rules on a discretionary issue in the matter, admits evidence, or takes testimony if:

(i) The hearing officer was not assigned at least five business days before the date of the hearing; or

(ii) The hearing officer was changed within five business days of the date of the hearing.

(3) **Disqualification:** A hearing officer may be disqualified from presiding over a hearing for bias, prejudice, conflict of interest, or ex parte contact with a party to the hearing.

(a) Any party may file a petition to disqualify a hearing officer as described in RCW 34.05.425. A petition to disqualify must be in writing and service promptly made to all par-

ties and the hearing officer upon discovering facts of possible grounds for disqualification.

(b) The hearing officer whose disqualification is requested will determine whether to grant or deny the petition in a written order, stating facts and reasons for the determination. The officer must serve the order no later than seven days after receiving the petition for disqualification.

#### NEW SECTION

##### **WAC 182-32-3030 Authority of the hearing officer.**

(1) A hearing officer must hear and decide the issues de novo (anew) based on the evidence and oral or written arguments presented during a formal administrative hearing and admitted into the record.

(2) A hearing officer has no inherent or common law powers, and is limited to those powers granted by the state constitution, statutes, or rules.

(3) A hearing officer may not decide that a rule is invalid or unenforceable. If the validity of a rule is raised during a formal administrative hearing, the hearing officer may allow argument only to preserve the record for judicial review.

#### NEW SECTION

**WAC 182-32-3080 Time requirements for service of notices made by the hearing officer.** (1) The hearing officer or their designee must serve a notice of a formal administrative hearing to all parties and their representatives at least twenty-one calendar days before the hearing date. The parties may agree to, but the hearing officer cannot impose, a shorter notice period.

(2) If a prehearing conference or dispositive motion hearing is scheduled, the hearing officer must serve a notice of the prehearing conference or dispositive motion hearing to the parties and their representatives at least seven business days before the date of the prehearing conference or dispositive motion hearing except:

(a) The hearing officer may change any scheduled formal administrative hearing into a prehearing conference or dispositive motion hearing and provide less than seven business days' notice of the prehearing conference or dispositive motion hearing; and

(b) The hearing officer may give less than seven business days' notice if the only purpose of the prehearing conference is to consider whether to grant a continuance.

(3) The hearing officer must reschedule a formal administrative hearing if necessary to comply with the notice requirements in this chapter.

#### NEW SECTION

**WAC 182-32-3090 Formal administrative hearing location.** (1) A hearing officer must be present at all hearings. Hearings may be held either in person or telephonically.

(a) A telephonic hearing is where all parties and the hearing officer are present by telephone.

(b) An in-person hearing is where the appellant appears face-to-face with the hearing officer. The other parties can choose to appear either in person or by telephone, but cannot be ordered to appear in person.

(2) Whether a hearing is held in person or telephonically, the parties have the right to see all documents, hear all testimony, and question all witnesses.

(3) If a hearing is originally scheduled to be held in-person, the appellant may ask the hearing officer to change the in-person hearing to a telephonic hearing. Once a telephonic hearing begins, the hearing officer may stop, reschedule, and change the telephonic hearing to an in-person hearing if any party makes such a request.

#### NEW SECTION

**WAC 182-32-3100 Rescheduling and continuances for formal administrative hearings.** (1) Any party may request the hearing officer to reschedule a formal administrative hearing if a rule requires notice of a hearing and the amount of notice required was not provided.

(a) The hearing officer must reschedule the formal administrative hearing under circumstances identified in this subsection if requested by any party.

(b) The parties may agree to shorten the amount of notice required by any rule.

(2) Any party may request a continuance of a formal administrative hearing either orally or in writing.

(a) In each formal administrative hearing, the hearing officer must grant each party's first request for a continuance. The continuance may be up to thirty calendar days.

(b) The hearing officer may grant each party up to one additional continuance of up to thirty calendar days because of extraordinary circumstances established at a proceeding.

(c) After granting a continuance, the hearing officer or their designee must:

(i) Immediately telephone all other parties to inform them the hearing was continued; and

(ii) Serve an order of continuance on the parties no later than fourteen days before the new hearing date. All orders of continuance must provide a new deadline for filing documents with the hearing officer. The new filing deadline can be no less than ten calendar days prior to the new formal administrative hearing date. If the continuance is granted pursuant to (b) of this subsection, then the order of continuance must also include findings of fact that state with specificity the extraordinary circumstances for which the hearing officer granted the continuance.

(3) Regardless of whether a party has been granted a continuance as described in subsection (1) of this section, the hearing officer must grant a continuance if a new material issue is raised during the formal administrative hearing and a party requests a continuance.

#### NEW SECTION

**WAC 182-32-3110 Prehearing conferences.** (1) A prehearing conference is a formal proceeding conducted on the record by a hearing officer to prepare for a formal administrative hearing.

(a) The hearing officer must record a prehearing conference using audio recording equipment.

(b) The hearing officer may conduct a prehearing conference in person, by telephone conference call, or in any other manner acceptable to the parties.

(2) Any party can request a prehearing conference. The hearing officer must grant each party's first request for a prehearing conference if it is filed with the hearing officer at least seven business days before the next scheduled hearing date. The hearing officer may grant requests for additional prehearing conferences.

(3) The appellant must attend or participate in any scheduled prehearing conference. If the appellant does not attend or participate in a scheduled prehearing conference, the hearing officer will enter an order of default dismissing the matter.

(4) During a prehearing conference the parties and the hearing officer may:

- (a) Identify the issue or issues to be decided;
- (b) Agree to the date, time, and place of any requested or necessary hearing or hearings;
- (c) Identify accommodation and safety issues; or
- (d) Establish a schedule for:
  - (i) The exchange and filing of briefs;
  - (ii) Providing a list of proposed witnesses;
  - (iii) Providing exhibit lists; and
  - (iv) Providing proposed exhibits before the hearing.

(5) After the prehearing conference ends, the hearing officer must enter a written order that recites the action taken at the prehearing conference, a case schedule outlining hearing dates and deadlines for exchanging witness lists and exhibits, and any other agreements reached by the parties.

(6) The hearing officer must serve the prehearing order to the parties at least fourteen calendar days before the next scheduled hearing.

(7) A party may object to the prehearing order by filing an objection with the hearing officer in writing no later than ten days after the service date of the order. The hearing officer must serve a written ruling on the objection.

(8) If no objection is made to the prehearing order, the order determines how the case will be conducted by the hearing officer, including whether a hearing will be in person or held by telephone conference, unless the hearing officer enters an amended prehearing conference order.

#### NEW SECTION

**WAC 182-32-3120 Dispositive motions.** (1) A dispositive motion could dispose of one or all the issues in a formal administrative hearing, such as a motion to dismiss or motion for summary judgment.

(2) To request a dispositive motion hearing a party must file a written dispositive motion with the hearing officer and serve a copy of the motion to all other parties. The hearing officer may also set a dispositive motion hearing, and request briefing from the parties, to address any possible dispositive issues the hearing officer believes must be addressed before the hearing.

(3) The deadline to file a timely dispositive motion shall be ten calendar days before the scheduled hearing.

(4) Upon receiving a dispositive motion, a hearing officer:

- (a) Must convert the scheduled hearing to a dispositive motion hearing when:

- (i) The dispositive motion is timely filed with the hearing officer at least ten calendar days before the date of the hearing; and

- (ii) The party filing the dispositive motion has not previously filed a dispositive motion.

- (b) May schedule a dispositive motion hearing in all instances other than described in (a) of this subsection.

(5) The hearing officer may conduct the dispositive motion hearing in person or by telephone conference. For dispositive motion hearings scheduled to be held in person, the health care authority (HCA) hearing representative may choose to attend and participate in person or by telephone conference call.

(6) The party requesting the dispositive motion hearing must attend and participate in the dispositive motion hearing in person or by telephone. If the party requesting the motion hearing does not attend and participate in the dispositive motion hearing, the hearing officer will enter an order of default.

(7) During a dispositive motion hearing, the hearing officer can only consider the filed dispositive motions, any response to the motions, evidence submitted to support or oppose the motions, and argument on the motions. Prior to rescheduling any necessary hearings, the hearing officer must serve a written order on the dispositive motions.

(8) The hearing officer must serve the written order on the dispositive motions to all parties no later than eighteen calendar days after the dispositive motion hearing is held. Orders on dispositive motions are subject to motions for reconsideration or petitions for judicial review as described in WAC 182-32-2120 and 182-32-2130.

#### NEW SECTION

**WAC 182-32-3130 Subpoenas.** (1) Hearing officers, the health care authority (HCA) hearing representative, and attorneys for the parties may prepare subpoenas as described in Washington state civil rule 45, unless otherwise prohibited by law. Any party may request the hearing officer prepare a subpoena on their behalf.

(2) The hearing officer may schedule a prehearing conference to decide whether to issue a subpoena.

(3) If a party requests the hearing officer prepare a subpoena on its behalf, the party is responsible for:

- (a) Service of the subpoena; and
- (b) Any costs associated with:
  - (i) Compliance with the subpoena; and
  - (ii) Witness fees as described in RCW 34.05.446(7).

(4) Service of a subpoena must be made by a person who is at least eighteen years old and not a party to the hearing. Service of the subpoena is complete when the person serving the subpoena:

- (a) Gives the person or entity named in the subpoena a copy of the subpoena; or
- (b) Leaves a copy of the subpoena with a person over the age of eighteen at the residence or place of business of the person or entity named in the subpoena.

(5) To prove service of a subpoena on a witness, the person serving the subpoena must file with the hearing officer's office a signed, written, and dated statement that includes:

(a) The name of the person to whom service of the subpoena occurred;

(b) The date of the service of the subpoena occurred;

(c) The address where the service of the subpoena occurred; and

(d) The name, age, and address of the person who provided service of the subpoena.

(6) A party may request the hearing officer quash (set aside) or change a subpoena request at any time before the deadline given in the subpoena.

(7) A hearing officer may quash (set aside) or change a subpoena if it is unreasonable.

#### NEW SECTION

**WAC 182-32-3140 Orders of dismissal—Reinstating a formal administrative hearing after an order of dismissal.** (1) An order of dismissal is an order from the hearing officer ending the matter. The order is entered because the party who made the appeal withdrew from the proceeding, the appellant is no longer aggrieved, the hearing officer granted a dispositive motion dismissing the matter, or the hearing officer entered an order of default because the party who made the appeal failed to attend or refused to participate in a prehearing conference or the formal administrative hearing.

(2) The order of dismissal becomes a final order if no party files a request to vacate the order as described in subsections (3) through (7) of this section.

(3) If the hearing officer enters and serves an order dismissing the formal administrative hearing, the appellant may file a written request to vacate (set aside) the order of dismissal. Upon receipt of a request to vacate an order of dismissal, the hearing officer must schedule and serve notice of a prehearing conference as described in WAC 182-32-3080. At the prehearing conference, the party asking that the order of dismissal be vacated has the burden to show good cause according to subsection (8) of this section for an order of dismissal to be vacated and the matter to be reinstated.

(4) The request to vacate an order of dismissal must be filed with the hearing officer and the other parties. The party requesting that an order of dismissal be vacated should specify in the request why the order of dismissal should be vacated.

(5) The request to vacate an order of dismissal must be filed with the hearing officer no later than twenty-one calendar days after the date the order of dismissal was entered. If no request is received within that deadline, the dismissal order becomes a final order and the final order will stand.

(6) If the hearing officer finds good cause, as described in subsection (8) of this section, for the order of dismissal to be vacated, the hearing officer must enter and serve a written order to the parties setting forth the findings of fact, conclusions of law, and reinstatement of the matter.

(7) If the order of dismissal is vacated, the hearing officer will conduct a formal administrative hearing at which the parties may present argument and evidence about issues

raised in the original appeal. The formal administrative hearing may occur immediately following the prehearing conference on the request to vacate only if agreed to by the parties and the hearing officer, otherwise a formal administrative hearing date must be scheduled by the hearing officer.

(8) Good cause is a substantial reason or legal justification for failing to appear, act, or respond to an action using the provisions of superior court civil rule 60 as a guideline. This good cause exception applies only to this chapter. This good cause exception does not apply to any other chapter or chapters in Title 182 WAC.

#### NEW SECTION

**WAC 182-32-3160 Withdrawing a formal administrative hearing.** (1) The appellant may withdraw a formal administrative hearing for any reason, and at any time, by contacting the health care authority (HCA) hearing representative who will coordinate the withdrawal with the hearing officer.

(2) The request for withdrawal must generally be made in writing. An oral withdrawal by the appellant is permitted during a formal administrative hearing when both the hearing officer and HCA hearing representative are present.

(3) After a withdrawal request is received, the hearing officer must cancel any scheduled hearings and enter and serve a written order dismissing the case.

#### NEW SECTION

**WAC 182-32-3170 Final order deadline—Required information.** (1) Within ninety days after the formal administrative hearing record is closed, the hearing officer shall serve a final order that shall be the final decision of the authority. The hearing officer shall serve a copy of the final order to all parties.

(2) The hearing officer must include the following information in the written final order:

(a) Identify the order as a final order of the school employees benefits board (SEBB) program;

(b) List the name and docket number of the case and the names of all parties and representatives;

(c) Enter findings of fact used to resolve the dispute based on the evidence admitted in the record;

(d) Explain why evidence is, or is not, credible when describing the weight given to evidence related to disputed facts;

(e) State the law that applies to the dispute;

(f) Apply the law to the facts of the case in the conclusions of law;

(g) Discuss the reasons for the decision based on the facts and the law;

(h) State the result and remedy ordered; and

(i) Include any other information required by law or program rules.

#### NEW SECTION

**WAC 182-32-3180 Request for reconsideration and response—Process.** (1) A request for reconsideration asks the hearing officer to reconsider the final order because the

party believes the hearing officer made a mistake of law, mistake of fact, or clerical error.

(2) A request for reconsideration must state in writing why the party wants the final order to be reconsidered.

(3) Requests for reconsideration must be filed with the hearing officer who entered the final order.

(4) If a party files a request for reconsideration:

(a) The hearing officer must receive the request for reconsideration on or before the tenth business day after the service date of the final order;

(b) The party filing the request must serve copies of the request on to all other parties; and

(c) Within five business days of receiving a request for reconsideration, the hearing officer must serve to all parties a notice that provides the date the request for reconsideration was received.

(5) The other parties may respond to the request for reconsideration. The response must state in writing why the final order should stand. Responses are optional. If a party chooses not to respond, that party will not be prejudiced because of that choice.

(a) Responses to a request for reconsideration must be received by the hearing officer no later than seven business days after the service date of the hearing officer's notice as described in subsection (4)(c) of this section, or the response will not be considered.

(b) Service of responses to a request for reconsideration must be made to all parties.

(6) If a party needs more time to file a request for reconsideration or respond to a request for reconsideration, the hearing officer may extend the required time frame if the party makes a written request providing a good reason for the request within the required time frame.

(7) No evidence may be offered in support of a motion for reconsideration, except newly discovered evidence that is material for the party moving for reconsideration and that the party could not with reasonable diligence have discovered and produced at the hearing or before the ruling on a dispositive motion.

#### NEW SECTION

**WAC 182-32-3190 Decisions on requests for reconsideration.** (1) Unless the request for reconsideration is denied as untimely filed under WAC 182-32-3180, the same hearing officer who entered the final order, if reasonably available, will also dispose of the request as well as any responses received.

(2) The decision on the request for reconsideration must be in the form of a written order denying or granting the request in whole or in part and issuing a new written final order.

(3) If the hearing officer does not send an order on the request for reconsideration within twenty calendar days of the date of the notice described in WAC 182-32-2120, the request is deemed denied.

(4) If any party files a request for reconsideration of the final order, the reconsideration process must be completed before any judicial review may be requested. However, the

filing of a request for reconsideration is not required before requesting judicial review.

(5) An order denying a request for reconsideration is not subject to judicial review.

#### NEW SECTION

**WAC 182-32-3200 Judicial review of final order.** (1) Judicial review is the process of appealing a final order to a court.

(2) The appellant may appeal a final order by filing a written petition for judicial review that meets the requirements of RCW 34.05.546. The school employees benefits board (SEBB) program may not request judicial review.

(3) The appellant should consult RCW 34.05.510 through 34.05.598 for further details and requirements of the judicial review process.

### **WSR 19-01-058**

#### **PERMANENT RULES**

#### **SUPERINTENDENT OF PUBLIC INSTRUCTION**

[Filed December 14, 2018, 10:51 a.m., effective January 14, 2019]

Effective Date of Rule: Thirty-one days after filing.

Purpose: Chapter 391-151 WAC implements RCW 46.61.385 and provides safety operation of school patrols. The office of superintendent of public instruction revised this chapter to bring the school safety patrol up-to-date with current safety standards.

Citation of Rules Affected by this Order: Repealing WAC 392-151-017, 392-151-065, 392-151-080, 392-151-095, 392-151-100, 392-151-110, 392-151-115, 392-151-125 and 392-151-130; and amending WAC 392-151-003, 392-151-010, 392-151-015, 392-151-020, 392-151-025, 392-151-030, 392-151-035, 392-151-040, 392-151-045, 392-151-050, 392-151-055, 392-151-060, 392-151-070, 392-151-075, 392-151-085, 392-151-090, 392-151-105, 392-151-135, and 392-151-140.

Statutory Authority for Adoption: RCW 46.61.385.

Adopted under notice filed as WSR 18-22-105 on November 6, 2018.

Number of Sections Adopted in Order to Comply with Federal Statute: New 0, Amended 0, Repealed 0; Federal Rules or Standards: New 0, Amended 0, Repealed 0; or Recently Enacted State Statutes: New 0, Amended 0, Repealed 0.

Number of Sections Adopted at the Request of a Non-governmental Entity: New 0, Amended 0, Repealed 0.

Number of Sections Adopted on the Agency's own Initiative: New 0, Amended 19, Repealed 9.

Number of Sections Adopted in Order to Clarify, Streamline, or Reform Agency Procedures: New 0, Amended 0, Repealed 0.

Number of Sections Adopted using Negotiated Rule Making: New 0, Amended 19, Repealed 9; Pilot Rule Making: New 0, Amended 0, Repealed 0; or Other Alternative Rule Making: New 0, Amended 0, Repealed 0.

Date Adopted: December 14, 2018.

Chris P. S. Reykdal  
State Superintendent  
of Public Instruction

AMENDATORY SECTION (Amending WSR 91-15-016, filed 7/10/91, effective 8/10/91)

**WAC 392-151-003 Authority.** The authority for this chapter is RCW 46.61.385 which authorizes the appointment and operation of school patrols by any public or private school subject to the conditions, procedures, and considerations required by this chapter. RCW 28A.160.160(5) requires walking routes for elementary schools, and such supplemental conditions, procedures, and considerations as any such school may impose which are in the best interest of student safety.

AMENDATORY SECTION (Amending WSR 91-15-016, filed 7/10/91, effective 8/10/91)

**WAC 392-151-010 Function of a school patrol.** The ~~((purpose and))~~ function of a school patrol ~~((are))~~ is to assist and aid members of the student body in the safe and proper crossing of ~~((streets, highways, and roads))~~ roadways adjacent to the school ~~((and other crossing areas approved by the local safety advisory committee)).~~

Student school patrol members assigned to work at a location with an adult school patrol member shall assist and act at the direction of such adult member of the patrol. A school patrol is to look for and utilize natural gaps in traffic as much as possible when allowing students to cross a ~~((street, highway, or road))~~ roadway.

AMENDATORY SECTION (Amending WSR 91-15-016, filed 7/10/91, effective 8/10/91)

**WAC 392-151-015 Administration and support.** The superintendent or chief administrative officer of the school district shall ~~((assume the leadership and))~~ be ultimately responsible for determining school patrol policy and operations. The principal of each school shall provide leadership in developing ~~((good relationships among teachers, student body, and members of))~~ the school patrol ~~((in matters of selecting, instructing, and giving immediate supervision to school patrol members and carrying out administrative details. Administration of the actual)).~~ Daily operation of a school patrol may be delegated to a school employee or a safety committee. ~~((The approval, understanding, support, and encouragement of school administrators, local traffic control agencies, teachers, parents, and students is essential in providing an effective school safety patrol.))~~

AMENDATORY SECTION (Amending WSR 91-15-016, filed 7/10/91, effective 8/10/91)

**WAC 392-151-020 Liability.** ~~((The fear of potential liability for injuries sustained by pupils, employees, or patrols is present in the minds of school board members and school administrators.))~~ Both a school district and its ~~((indi-~~

~~vidual))~~ employees or agents are potentially liable for damages sustained by students or others as the result of negligence. ~~((Examples of actions or inactions possibly giving rise to an award of damages by a court include: The failure to properly supervise students while they are in the custody of school employees or agents; the failure to properly instruct students in the procedures necessary to safeguard themselves while participating in school activities which may otherwise cause them injury; the failure to select and assign competent employees or agents to safeguard students where necessary; and, in general, the failure to take reasonable precautions to safeguard students in the custody of the school against foreseeable dangers.~~

The following suggested procedures may assist schools and employees or agents reduce the potential liability in connection with the operation of a school patrol:

~~(1) Establish reasonable rules and regulations regarding))~~ Any school district operating a school patrol shall adopt policies and procedures to reduce the potential liability and ensure student safety, including:

(1) The supervision and control of the school patrols by a school employee.

~~(2) ((Establish a policy which limits))~~ Limiting the selection of student patrol members to students who are preferably ages ten or older and who possess appropriate physical and mental abilities.

~~(3) ((Establish a policy which authorizes))~~ Authorizing any parent to have his or her child excluded from service on the safety patrol.

~~(4) ((Establish a policy which requires))~~ Requiring school boards to provide insurance for members of the school patrol and for all supervisory officials involved in the program.

~~(5) ((Establish a policy which sets))~~ Setting forth specific physical and other criteria for selecting school patrol members and providing adequate training.

(6) Observing patrollers during inclement weather, hours of semidarkness and emergencies.

In addition, schools should periodically conduct a complete review of the entire school patrol program, including the following:

(a) The selection of supervisors.

~~(b) ((The selection of student and adult members of the patrol~~

~~ed))~~ The training of both supervisors and patrol members.

~~((d))~~ (c) The determination of the streets which are to be used and ~~((those which are))~~ not ~~((to be))~~ used.

~~((e))~~ (d) The equipment needed.

~~((f) The time schedule when the patrol will be on duty~~

~~((g) The special precautions to be observed in))~~ (e) Procedures for emergencies, inclement weather and ~~((during))~~ hours of semidarkness.

AMENDATORY SECTION (Amending WSR 96-22-057, filed 11/1/96, effective 12/2/96)

**WAC 392-151-025 Route plans.** Suggested route plans shall be developed for each elementary school that has students who walk to and from school. It shall recommend

school routes based on considerations of traffic patterns, existing traffic controls, and other crossing protection aids such as school patrols. These route plans shall limit the number of school crossings so that students move through the crossings in groups (~~(-allowing only one entrance-exit from each block to and from school)~~). The walking route (~~(to school)~~) plan shall be distributed to all students (~~(with instructions that it be taken home and discussed with the parents)~~).

AMENDATORY SECTION (Amending WSR 96-22-057, filed 11/1/96, effective 12/2/96)

**WAC 392-151-030 Controlled crossings.** (~~("School patrol controlled" crosswalks are defined as any crosswalk which is attended by a student or adult guard, and which is not controlled by a traffic signal or stop sign.)~~) (1) School patrol controlled crossings shall not be operated unless proper traffic control devices are in place as depicted in Washington state department of transportation, *Sign Fabrication Manual* and *Manual on Uniform Traffic Control Devices*, as now or hereafter amended. As a minimum, these shall consist of:

- ~~((1))~~ (a) School crossing warning signs S1-1 and S2-1,
- ~~((2))~~ (b) Marked crosswalks,
- ~~((3))~~ (c) School speed limit sign.

~~("School patrol assisted" crosswalks are defined as any crosswalk which is attended by a student or adult crossing guard and controlled by a stop sign, traffic signal or law enforcement officer. When crossings are controlled by stop signs, the S2-1 may be omitted. When crossings are controlled by a traffic signal or by a stop sign, the use of the school speed limit sign may be necessary following an engineering study.)~~

(2) Contact shall be made by school authorities with the governmental agency having jurisdiction over the street or highway in question in order to secure the necessary signs. ~~(The state department of transportation shall be contacted concerning all state highways outside of incorporated towns and cities and on those state highways within the incorporated limits of towns and cities with a population of 22,500 or less. On state highways within the incorporated limits of cities with a population of 22,500 or more, the city public works department shall be contacted.~~

~~The county highway department shall be contacted regarding all county roads. On city and town streets, which are not state highways, within the incorporated limits of cities and towns, the city or town street or public works department shall be contacted.~~

~~When school officials and/or the safety advisory committee determines that vehicular traffic volumes are such that adequate safe gaps in the traffic flow do not occur in reasonable frequent intervals to allow safe crossings by students, this condition, as well as any other related traffic issues, shall be evaluated cooperatively with the traffic engineering authorities having jurisdiction in order that necessary studies can be conducted for the purpose of developing possible alternative measures.)~~

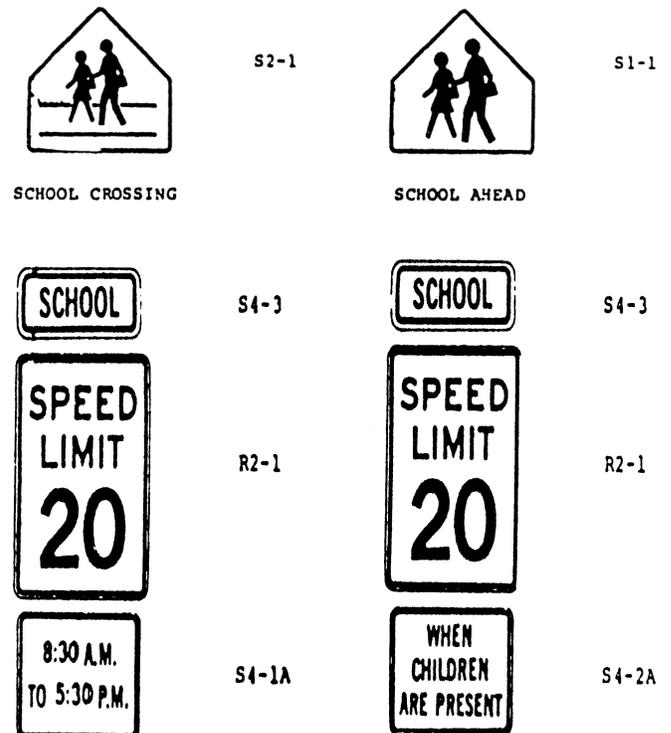
(3) Where conditions are such that a patrol member cannot be seen at least as far away as the safe stopping distance

for the legal speed at the location, one of the following procedures shall be carried out:

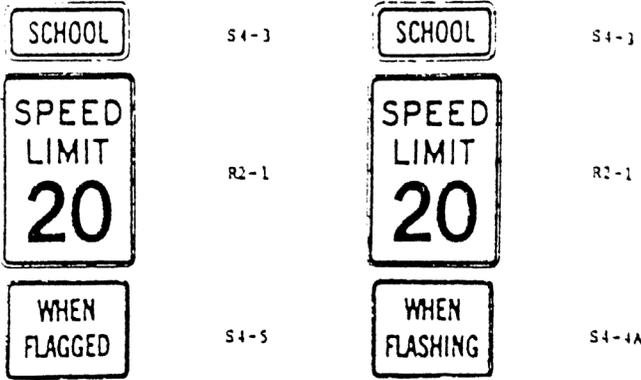
- ~~((1))~~ (a) Select a safer location for the crossing at which the patrol is to serve.
- ~~((2))~~ (b) Cooperatively evaluate the condition with traffic authorities having jurisdiction for the purpose of developing possible alternative measures.

AMENDATORY SECTION (Amending WSR 91-15-016, filed 7/10/91, effective 8/10/91)

**WAC 392-151-035 School crossing warning and speed limit signs.**



- Note: The Washington state department of transportation defines when children are present as:
- School children are occupying or walking within the marked crosswalk.
  - School children are occupying or waiting at the curb or on the shoulder of the roadway and are about to cross the roadway by way of the marked crosswalk.
  - School children are present or walking along the roadway, either on the adjacent sidewalk or, in the absence of sidewalks, on the shoulder within the posted school speed limit zone which extends three hundred feet in either direction from the marked crosswalk.



AMENDATORY SECTION (Amending WSR 91-15-016, filed 7/10/91, effective 8/10/91)

**WAC 392-151-040 Organization, instruction, and supervision.** The ~~((building))~~ school principal or a member of the staff appointed by the principal shall supervise the school patrol. Criteria for the selection of a school patrol supervisor shall include:

- ~~((a))~~ (1) Interest in safety.
- ~~((b))~~ (2) Ability to organize, lead and discipline.
- ~~((c))~~ Ability to lead
- ~~(d)~~ Ability to discipline
- ~~(e)~~ Attitude toward work
- ~~(f)~~ Efficiency on job
- ~~(g))~~ (3) Ability to recognize individual differences.
- ~~((h))~~ Ability to hold respect of pupils
- ~~(i))~~ (4) Dependability.

AMENDATORY SECTION (Amending WSR 91-15-016, filed 7/10/91, effective 8/10/91)

**WAC 392-151-045 Duties of patrol supervisor.** Duties of a school patrol supervisor shall include:

- (1) Being knowledgeable in all areas of the school patrol.
- (2) Selection of school patrol members according to school policy.
- (3) Instruction and training of all school patrol members and officers in their respective duties.
- (4) ~~((Supervision of the work of the school patrol in such manner as to develop the greatest initiative, leadership, and effectiveness on the part of each patrol officer and member.~~
- ~~(5))~~ Hold regular meetings of the school patrol for the purpose of instruction in safety practices~~((;))~~ and discussions concerning infractions of rules~~((, and stimulating and inspiring the members in the performance of their duties.~~
- (6) Serve as advisor to the school safety advisory committee.

~~An officer of the state patrol, sheriff's office, or local police department shall be requested to assist in the instruction of school patrol members in the performance of their duties and thereafter make visits to street and highway crossings where school patrol members are stationed).~~

(5) Instruction in traffic rules and regulations shall be given to all children attending the school. Written rules and

regulations shall be distributed to parents/guardians and students.

AMENDATORY SECTION (Amending WSR 91-15-016, filed 7/10/91, effective 8/10/91)

**WAC 392-151-050 Selection, appointment and suspension of patrol members.** Student school patrol members shall be selected from the upper grade levels and preferably not below age ten. Qualities such as leadership and reliability shall be considered in the selection of any patrol member. ~~((School patrol service shall be voluntary.))~~

Written approval of a parent or guardian shall be secured in the case of student patrol members. Each prospective patrol member shall be given a vision and hearing examination. ~~((After selection, each school patrol member candidate shall be formally appointed by the principal.))~~ The parent(s) or guardian(s) of a student patrol member shall be notified in writing or via a personal interview of the student's suspension from duty as a school patrol member.

~~((New patrol members may be selected thirty days before the school term terminates. Additional patrol members may be recruited in the fall of each year and, thereafter, as necessary to fill open positions.))~~ New members shall work with trained school patrol members for a long enough period to learn their duties.

~~((A captain of the school patrol may be selected. Instructions shall be given each new school patrol member so that he or she can begin effective duty at a specific post the morning the next school term commences.))~~

AMENDATORY SECTION (Amending WSR 91-15-016, filed 7/10/91, effective 8/10/91)

**WAC 392-151-055 Utilization of adult patrol members.** Schools ~~((possess the authority to))~~ may appoint adults as members of a school patrol. The following criteria may be used to determine at which locations adult patrol members shall be stationed:

- (1) When there is a lack of adequate gaps due to a high volume of traffic.
- (2) ~~((When 85 percent of the traffic speed exceeds the speed limit by 5 miles an hour.~~
- ~~(3))~~ When there is a restricted sight distance.
- ~~((4))~~ (3) When the location or distance from the school building is such that poor supervision of students would otherwise result.
- ~~((5))~~ (4) When there is a high volume of turning traffic over a crosswalk.
- ~~((6))~~ (5) When the location has been determined by either school or law enforcement authorities to be beyond the capability of a student to make rational decisions concerning safety.
- ~~((7) When there is an excessive volume of pedestrian traffic over a highway.~~
- ~~(8) When any of the above criteria exists and there is a lack of an alternate school route plan.))~~

AMENDATORY SECTION (Amending WSR 91-15-016, filed 7/10/91, effective 8/10/91)

**WAC 392-151-060 Good character references for adult patrol members.** Prior to any assignment, good character references ~~((shall be obtained on every adult who is being considered as a school patrol member. Good moral character is defined in WAC 180-75-081. In addition, a))~~ and a Washington state patrol criminal history request shall be obtained on each ~~((new))~~ adult candidate.

AMENDATORY SECTION (Amending Order 7-75, filed 12/22/75)

**WAC 392-151-070 Size of patrol and officers needed.** The number of members on a school patrol shall be determined by factors such as: ~~((Street and highway))~~ Roadway conditions, number of intersections, volume of vehicular traffic, school enrollment, and number of arrival and school dismissal times. ~~((If there are several dismissal times, the size of the patrol shall be increased and the groups rotated so that no one member shall be absent too long from his or her classes. The supervisor may request assistance from the traffic safety unit of the police department in planning school patrol posts. Engineering studies may be requested from the traffic engineer's office by the police unit, the principal, or the school safety committee.))~~

Each school patrol may have a patrol captain and one or more lieutenants and sergeants. The captain shall be a patrol member who possesses qualities of leadership and shall be selected by the supervisor of the patrol on a trial basis or elected by the members subject to the supervisor's approval.

~~((Officers and members should normally serve for at least one full school year. However, a plan for periodic relief may be provided for and implemented at the discretion of school authorities. This may be done by organizing groups to rotate weekly or several weeks at a time or by rotating dismissal times.))~~

Some of the duties of the school safety patrol officers are:

- (1) Assigning school patrol members to their posts.
- (2) Supervising the operations of the school patrol.
- (3) Keeping school patrol records ~~((, including attendance)).~~
- (4) Being responsible for the procedure at each crossing.
- (5) Making sure each school patrol member wears his or her equipment while on duty.
- (6) Arranging for a substitute in case of absence of a regular school patrol member.
- (7) Manning ~~((the))~~ a post in case of an emergency.

AMENDATORY SECTION (Amending Order 7-75, filed 12/22/75)

**WAC 392-151-075 Hours on duty.** ~~((The hours that patrol members are on duty shall be determined by the needs of the school area from an accident prevention standpoint and the time schedule of the school being served. The schedule of each student patrol member shall be so planned as to make it unnecessary for the student to miss regular school work for lengthy periods.))~~ Parents or guardians shall be informed of

the amount of time students are scheduled to serve on patrols and how much class time may be missed due to patrol duty.

When a patrol member has been assigned to a particular crossing, the member shall be on duty at all times students are normally crossing ~~((streets or highways))~~ roadways in going to and from school. ~~((Members shall be at their posts 10 to 15 minutes before the first class in the morning and 10 to 15 minutes before school begins in the afternoon.))~~

~~At dismissal times, arrangements shall be made for student patrol members to leave their classes 2 or 3 minutes before the dismissal bell. Patrol members shall remain on duty until the patrol captain or patrol supervisor gives the dismissal signal.))~~

AMENDATORY SECTION (Amending Order 7-75, filed 12/22/75)

**WAC 392-151-085 General duties of patrol members.** Each school patrol member shall adhere to the following duties and rules:

- (1) Report to the crossing on time and remain during the prescribed period or until properly relieved.
- (2) Perform duties as outlined.
- (3) Wear standard uniform at all times while on duty.
- (4) ~~((Be polite at all times.))~~
- ~~((5))~~ (5) Attend strictly to the task and do not permit attention to be diverted while on duty.
- ~~((6))~~ (5) Direct students ~~((;))~~ to cross during a safe gap in traffic. Do not direct vehicular traffic.
- ~~((7))~~ (6) Know the procedures to follow in case of an accident or emergency.
- ~~((8))~~ (7) Notify the designated person in advance of anticipated absence.

AMENDATORY SECTION (Amending WSR 80-09-015, filed 7/9/80)

**WAC 392-151-090 Standard uniforms.** The standard uniform for school patrol members shall ~~((be))~~ include a badge, high-visibility reflective vest, flag that meets the American National Standards Institute (ANSI) and International Safety Equipment Association (ISEA) standards for high-visibility safety apparel and accessories and/or ~~((raincoat and shall be worn only during a patrol function))~~ raincoat/poncho that is recommended by the Washington traffic safety commission for school patrol use. A helmet or hat may be used as part of the standard uniform.

~~((The helmet when used shall be fluorescent orange, white, red, or yellow.))~~ For additional visibility during hours of darkness, reflective tape may be added to the uniform.

~~((The school patrol vest shall be fluorescent orange with reflective white bands.))~~

~~The raincoat shall be fluorescent orange, red, or yellow.))~~

AMENDATORY SECTION (Amending WSR 91-15-016, filed 7/10/91, effective 8/10/91)

**WAC 392-151-105 Instruction of patrol members.** Each school patrol member shall be thoroughly trained in his or her duties before being permitted to take assigned posts.

Instruction shall include the fundamentals of patrol operation - Where and how to stand when on duty, how to handle the patrol flag, and what constitutes a sufficient gap in vehicular traffic to permit safe crossing by students. Emphasis shall be placed on special hazards and the need for constant alertness.

~~((Types of training which shall be given members are:~~

~~(1) On the job training for at least one week under the direction of an experienced patrol member or for a longer period to learn their duties.~~

~~(2) Personal instruction by the patrol supervisor, a police officer, or a designated school district safety official.~~

~~(3) Reading and understanding written instructions which the school has compiled for the specific purpose of instructing new members.))~~

AMENDATORY SECTION (Amending WSR 91-15-016, filed 7/10/91, effective 8/10/91)

**WAC 392-151-135 Operation at an intersection with traffic signal.** At an intersection with a traffic signal, the light shall govern school patrol operation and the movement of students.

~~((When the light turns green in the direction the students are to cross, the patrol members shall be certain that all approaching cars are stopping for their red light. When the patrol members are sure that traffic does not constitute a hazard, the patrol members shall follow the basic crossing procedure.~~

~~Before the red signal comes back on, patrol members shall stop all stragglers. Patrol members shall know the length of time the green is on and be able to estimate the correct moment to stop the flow of pedestrians.~~

~~When the signal is a pedestrian-actuated light, it shall be controlled by the "sender" patrol member. The "WALK" phase of this type of light is shorter than the green phase of the regular traffic light so that small compact groups of pedestrians may be allowed to cross at one time.))~~

AMENDATORY SECTION (Amending WSR 91-15-016, filed 7/10/91, effective 8/10/91)

**WAC 392-151-140 Violation reports and ((~~acci-~~ dents)) emergencies.** Moving motor vehicle violations at school crossings shall be reported to the appropriate law enforcement agency. School patrol members shall report all incidents which occur on or near their crossings which appear to involve unsafe practices on the part of anyone. Such reports shall be made to the patrol supervisor.

If the incident involves a driver violation, the license number of the car shall be written down immediately. Reports shall be reviewed by the patrol supervisor and principal. When the principal feels that a particular violation has occurred which requires follow-up by the police department, a violation report shall be filled out.

In the event of an injury accident or emergency at their post, patrol members shall observe the following directions:

(1) If the accident was caused by a vehicle, obtain license number, time of violation, and whether male or female driver.

(2) Never leave the crossing. Dispatch messengers to the school office stating location, nature, and seriousness of accident.

(3) Keep all students back away from the curb.

(4) Obtain name and address of victim and witnesses.

(5) Make a report to the patrol supervisor.

#### REPEALER

The following sections of the Washington Administrative Code are repealed:

WAC 392-151-017 Safety advisory committee—Selection.

WAC 392-151-065 Adult patrol members—Knowledge—  
Training of students—Introduction.

WAC 392-151-080 The patrol captain.

WAC 392-151-095 Equipment.

WAC 392-151-100 Care of equipment—Dismissal.

WAC 392-151-110 Installing school patrol members.

WAC 392-151-115 Patrol operation—Assignment and  
inspection.

WAC 392-151-125 Operation with school patrol members.

WAC 392-151-130 Operation with an adult patrol member  
or police officer or traffic signal.

#### **WSR 19-01-061**

#### **PERMANENT RULES**

#### **UNIVERSITY OF WASHINGTON**

[Filed December 14, 2018, 11:52 a.m., effective April 1, 2019]

Effective Date of Rule: April 1, 2019.

Purpose: The University of Washington is reorganizing the information in our WAC to clarify locations of information on both permissive and mandatory waivers.

Citation of Rules Affected by this Order: Amending WAC 478-160-163.

Statutory Authority for Adoption: Chapter 28B.15 RCW and RCW 28B.20.130.

Adopted under notice filed as WSR 18-20-102 on October 2, 2018.

Number of Sections Adopted in Order to Comply with Federal Statute: New 0, Amended 0, Repealed 0; Federal Rules or Standards: New 0, Amended 0, Repealed 0; or Recently Enacted State Statutes: New 0, Amended 0, Repealed 0.

Number of Sections Adopted at the Request of a Non-governmental Entity: New 0, Amended 0, Repealed 0.

Number of Sections Adopted on the Agency's own Initiative: New 0, Amended 1, Repealed 0.

Number of Sections Adopted in Order to Clarify, Streamline, or Reform Agency Procedures: New 0, Amended 1, Repealed 0.

Number of Sections Adopted using Negotiated Rule Making: New 0, Amended 0, Repealed 0; Pilot Rule Making: New 0, Amended 0, Repealed 0; or Other Alternative Rule Making: New 0, Amended 0, Repealed 0.

Date Adopted: December 13, 2018.

Barbara Lechtanski  
Director of  
Rules Coordination

AMENDATORY SECTION (Amending WSR 12-07-016, filed 3/12/12, effective 4/12/12)

**WAC 478-160-163 Waivers of tuition and fees.** (1)

The board of regents is authorized to grant tuition and fee waivers to students pursuant to RCW 28B.15.910 and the laws identified therein. A number of these statutes authorize, but do not require, the board of regents to grant waivers for different categories of students and provide((s)) for waivers of different fees. For the waivers that are authorized but not required by state law, the board of regents must affirmatively act to implement the legislature's grant of authority under each individual law. ~~((A list of))~~ The permissive waivers that the board has implemented ~~((can be found in the *University of Washington General Catalog*, which is published biennially. The most recent list may be found in the online version of the *General Catalog* at [www.washington.edu/students/reg-tuition-exempt-reductions.html](http://www.washington.edu/students/reg-tuition-exempt-reductions.html)))~~ are noted in subsections (5) and (6) of this section. Permissive waivers not listed in subsection (5) or (6) have not been implemented. A full list of permissive waivers adopted by the board of regents and a list of mandatory waivers can be found online on the University of Washington's Office of the University Registrar web site. Mandatory waivers are also listed in university policy.

(2) Even when it has decided to implement a permissive waiver listed in RCW 28B.15.910, the university, for specific reasons and a general need for flexibility in the management of its resources, may choose not to award waivers to all students who may be eligible under the terms of the laws. ~~((Where the university has chosen to impose specific limitations on a permissive waiver listed in RCW 28B.15.910, those limitations are delineated in subsection (5) of this section. If the university has not imposed specific limitations on a permissive waiver listed in RCW 28B.15.910, the waiver is not mentioned in subsection (5) of this section. The university's description of the factors it may consider to adjust a waiver program to meet emergent or changing needs is found in subsection (8) of this section. All permissive waivers are subject to subsection (8) of this section.))~~ The university's description of the factors it may consider to adjust a waiver program to meet emergent or changing needs is found in subsection (7) of this section. All permissive waivers are subject to subsection (7) of this section.

(3) The board of regents also has the authority under RCW 28B.15.915 to grant waivers of all or a portion of operating fees as defined in RCW 28B.15.031. ~~((Waiver programs adopted under RCW 28B.15.915 are described in the *General Catalog*. The most recent list may be found in the online version of the *General Catalog* at [www.washington.edu/students/reg-tuition-exempt-reductions.html](http://www.washington.edu/students/reg-tuition-exempt-reductions.html)))~~ Waivers granted under RCW 28B.15.915 are subject to subsection ~~((8))~~ (7) of this section.

(4) No waivers ~~((will not be))~~ contained in this section will be awarded to students participating in self-sustaining courses or programs ~~((because they do not pay "tuition,"~~

~~"operating fees," "services and activities fees," or "technology fees" as defined in RCW 28B.15.020, 28B.15.031, 28B.15.041, or 28B.15.051, respectively.~~

~~(5) Specific limitations on waivers are as follows:~~

~~(a) Waivers authorized by RCW 28B.15.621(2)(a) for eligible veterans and National Guard members, shall be awarded only to:~~

~~(i) Undergraduate students pursuing their first bachelor's degree to a maximum of 225 college-level credits, including credits transferred from other institutions of higher education; and~~

~~(ii) Full-time graduate or professional degree students, provided however, that the waiver may be applied only toward a single degree program at the University of Washington, and, provided further, that graduate and professional degree students who received a waiver authorized by RCW 28B.15.621(2)(a) as undergraduates at the University of Washington shall not be eligible for this waiver.~~

~~To qualify an individual as an "eligible veteran or National Guard member," the person seeking the waiver must present proof of domicile in Washington state and a DD form 214 (Report of Separation) indicating their service as an active or reserve member of the United States military or naval forces, or a National Guard member called to active duty, who served in active federal service, under either Title 10 or Title 32 of the United States Code, in a war or conflict fought on foreign soil or in international waters or in another location in support of those serving on foreign soil or in international waters, and if discharged from services, has received an honorable discharge.~~

~~(b) Waivers of nonresident tuition authorized by RCW 28B.15.014 for university faculty and classified or professional staff).~~

~~(5) Pursuant to its authority to grant permissive waivers under RCW 28B.15.910 and the laws cited in this subsection, the board of regents adopts the waivers of all or a portion of nonresident tuition fees differential contained in the subsections listed below, with the accompanying noted limitations. These limitations are in addition to any limitations set forth in RCW.~~

~~(a) RCW 28B.15.014(1);~~

~~(b) RCW 28B.15.014(2). Waivers under this subsection shall be restricted to four consecutive quarters from ((their)) the employee's initial date of employment with the University of Washington. The ((recipient of the waiver)) employee must be employed ((by)) on or before the first day of the quarter for which the waiver is awarded~~((. Waivers awarded to immigrant refugees, or the spouses or dependent children of such refugees, shall be restricted to persons who reside in Washington state and to four consecutive quarters from their arrival in Washington state.~~~~

~~(c) All waivers authorized by RCW 28B.15.558 shall be subject to such additional limitations as determined by the provost, pursuant to the terms of subsection (8) of this section. In addition, waivers authorized by RCW 28B.15.558 shall be awarded only to the classes of employees described in (i) of this subsection before considering waivers for the employees described in (ii) and (iii) of this subsection:~~

~~(i) University of Washington employees who are employed half-time or more, hold qualifying appointments as of the first day of the quarter for which the waivers are requested, are paid monthly, and, for classified staff new to the university, have completed their probationary periods prior to the first day of the quarter; or~~

~~(ii) State of Washington permanent employees who are employed half-time or more, are not University of Washington permanent classified employees, are permanent classified or exempt technical college paraprofessional employees, or are permanent faculty members, counselors, librarians or exempt employees at other state of Washington public higher education institutions; or~~

~~(iii) Teachers and other certificated instructional staff employed at public common and vocational schools, holding or seeking a valid endorsement and assignment in a state-identified shortage area.~~

~~(6) Waivers mandated by RCW 28B.15.621(4), as amended by section 1, chapter 450, Laws of 2007, for children and spouses or surviving spouses of eligible veterans and National Guard members who became totally disabled, or lost their lives, while engaged in active federal military or naval service, or who are prisoners of war or missing in action, shall be awarded in accordance with, and subject to the limitations set forth in state law.~~

~~(7) Waivers mandated by RCW 28B.15.380, as amended by section 4, chapter 261, Laws of 2010, for children and surviving spouses of any law enforcement officer (as defined in chapter 41.26 RCW), firefighter (as defined in chapter 41.24 or 41.26 RCW), or Washington state patrol officer, who lost his or her life or became totally disabled in the line of duty while employed by any public law enforcement agency or full-time volunteer fire department in this state, shall be awarded in accordance with, and subject to the limitations set forth in, state law.~~

~~(8)):~~

~~(c) RCW 28B.15.014(3). Waivers under this subsection shall be restricted to persons who reside in Washington state;~~

~~(d) RCW 28B.15.225; and~~

~~(e) RCW 28B.15.544 and chapter 28B.70 RCW.~~

~~(6) Pursuant to its authority to grant permissive waivers under RCW 28B.15.910 and the laws cited in this subsection, the board of regents adopts the following waivers contained in the sections listed below, with the accompanying noted limitations. These limitations are in addition to any limitations set forth in RCW.~~

~~(a) RCW 28B.15.100(3);~~

~~(b) RCW 28B.15.540(2);~~

~~(c) RCW 28B.15.555 and 28B.15.556;~~

~~(d) RCW 28B.15.558. All waivers authorized by RCW 28B.15.558 shall be subject to such additional limitations as determined by the provost, pursuant to the terms of subsection (7) of this section. These limitations on employee and course eligibility can be found in university policy in Administrative Policy Statement (APS) 22.1. The office of the university registrar also maintains a list of excluded courses and programs. As authorized by RCW 28B.15.558(5) waivers shall be awarded to eligible University of Washington employees before considering waivers for eligible persons who are not employed by the institution;~~

~~(e) RCW 28B.15.615;~~

~~(f) RCW 28B.15.621(2). The university adopts this waiver only as to:~~

~~(i) Undergraduate students pursuing their first bachelor's degree to a maximum of 225 college-level credits, including credits transferred from other institutions of higher education; and~~

~~(ii) Full-time graduate or professional degree students, provided however, that the waiver may be applied only toward a single degree program at the University of Washington, and, provided further, that graduate and professional degree students who received a waiver authorized by RCW 28B.15.621(2) as undergraduates at the University of Washington shall not be eligible for this waiver.~~

~~To qualify an individual as an "eligible veteran or National Guard member," the person seeking the waiver must present proof of domicile in Washington state and either a DD Form 214 (report of separation) or other documentation indicating they meet the criteria in RCW 28B.15.621(8).~~

~~(g) RCW 28B.15.740(1); and~~

~~(h) RCW 28B.15.740(2).~~

~~(7) The university may modify its restrictions or requirements pursuant to changes in state or federal law, changes in programmatic requirements, or in response to financial or other considerations, which may include, but are not limited to, the need to adopt fiscally responsible budgets, the management of the overall levels and mix of enrollments, management initiatives to modify enrollment demand for specific programs and management decisions to eliminate or modify academic programs. The university may choose not to exercise the full funding authority granted under RCW 28B.15.910 and may limit the total funding available under RCW 28B.15.915.~~

## WSR 19-01-062

### PERMANENT RULES

#### DEPARTMENT OF AGRICULTURE

[Filed December 14, 2018, 1:13 p.m., effective January 14, 2019]

Effective Date of Rule: Thirty-one days after filing.

Purpose: Chapter 16-157 WAC, Organic food standards and certification, this rule-making order amends chapter 16-157 WAC by restructuring the organic certification fee structure, updating the organic and transitional logos, and making minor technical corrections to terminology.

Citation of Rules Affected by this Order: New WAC 16-157-251; repealing WAC 16-157-220, 16-157-230, 16-157-240, 16-157-245, 16-157-250 and 16-157-270; and amending WAC 16-157-010, 16-157-020, 16-157-030, 16-157-215, 16-157-260, 16-157-275, and 16-157-290.

Statutory Authority for Adoption: RCW 15.86.060, 15.86.070.

Adopted under notice filed as WSR 18-21-190 on October 24, 2018.

Number of Sections Adopted in Order to Comply with Federal Statute: New 0, Amended 0, Repealed 0; Federal Rules or Standards: New 0, Amended 0, Repealed 0; or Recently Enacted State Statutes: New 0, Amended 0, Repealed 0.

Number of Sections Adopted at the Request of a Non-governmental Entity: New 0, Amended 0, Repealed 0.

Number of Sections Adopted on the Agency's own Initiative: New 1, Amended 7, Repealed 6.

Number of Sections Adopted in Order to Clarify, Streamline, or Reform Agency Procedures: New 0, Amended 0, Repealed 0.

Number of Sections Adopted using Negotiated Rule Making: New 0, Amended 0, Repealed 0; Pilot Rule Making: New 0, Amended 0, Repealed 0; or Other Alternative Rule Making: New 0, Amended 0, Repealed 0.

Date Adopted: December 14, 2018.

Derek I. Sandison  
Director

AMENDATORY SECTION (Amending WSR 06-23-108, filed 11/17/06, effective 12/18/06)

**WAC 16-157-010 Purpose.** This chapter is adopted under RCW 15.86.060 wherein the director is authorized to adopt rules for the proper administration of the Organic Food Products Act, and under RCW 15.86.070 wherein the director is authorized to adopt rules establishing a certification program for producers, processors, and handlers of organic and transitional (~~(food)~~) products.

AMENDATORY SECTION (Amending WSR 18-03-154, filed 1/23/18, effective 2/23/18)

**WAC 16-157-020 Adoption of the National Organic Program.** The Washington state department of agriculture adopts the standards of the National Organic Program, 7 C.F.R. Part 205, effective August 7, 2017, for the production and handling of organic crops, livestock, and processed (~~(food)~~) agricultural products. The National Organic Program rules may be obtained from the department by emailing the organic program at [organic@agr.wa.gov](mailto:organic@agr.wa.gov), by phone at 360-902-1805 or accessing the National Organic Program's web site at <https://www.ams.usda.gov/rules-regulations/organic>.

AMENDATORY SECTION (Amending WSR 06-23-108, filed 11/17/06, effective 12/18/06)

**WAC 16-157-030 Definitions.** As used in this chapter:

"Department" means the Washington state department of agriculture.

"Director" means the director of the department of agriculture or his or her duly authorized representative.

"Facility" includes, but is not limited to, any premises, plant, establishment, facility and associated appurtenances where organic (~~(food is)~~) products are prepared, handled, or processed in any manner for resale or distribution to retail outlets, restaurants, and any other such facility selling or distributing to consumers.

"Gross annual income" means the total monetary value received during (~~(a twelve-month period of time. The twelve-month period of time may be a fiscal year or a)~~) the previous calendar year.

"Handler" means any person engaged in the business of handling agricultural products, including producers who handle crops or livestock of their own production.

"Handling operation" means any operation or portion of an operation that receives or otherwise acquires agricultural products and processes, packages, or stores such products.

"New applicant" means any person who applies for organic certification for the first time, or any person who has surrendered an organic certification or had an organic certification suspended or revoked.

"Person" means any individual, partnership, limited liability company, association, cooperative, or other entity.

"Processor" means any handler engaged in the canning, freezing, drying, dehydrating, cooking, pressing, powdering, packaging, baking, heating, mixing, grinding, churning, separating, extracting, cutting, fermenting, eviscerating, preserving, jarring, slaughtering or otherwise processing organic (~~(food)~~) products.

"Producer" means a person who engages in the business of growing or producing food, fiber, feed, and other agricultural-based consumer products.

"Production operation" means a farm, ranch, or other business that grows, gathers, or raises crops, wild crops, or livestock.

"Renewal applicant" means any person that has received organic certification from the department in the previous year.

"Retailer" means any handler that sells organic food products directly to consumers.

"Sale" means selling, offering for sale, holding for sale, preparing for sale, trading, bartering, offering a gift as an inducement for sale of, and advertising for sale in any media.

"Site" means a contiguous defined field, orchard, block, pasture, paddock, garden, circle, plot or other designated area under the same management practices (e.g., organic, transitional).

"Transitional product" means any agricultural product that (a) is marketed using the term transitional in its labeling and advertising and (b) satisfies all of the requirements of organic except that it has had no applications of prohibited substances within one year prior to the harvest of the crop.

AMENDATORY SECTION (Amending WSR 06-23-108, filed 11/17/06, effective 12/18/06)

**WAC 16-157-215 General requirements for certification.** (1) Except for operations exempt or excluded in the National Organic Program (7 C.F.R. 205.101), each production or handling operation or specified portion of a production or handling operation must be certified if it produces or handles crops, livestock, livestock products, or other agricultural products intended to be sold, labeled, or represented as "one hundred percent organic," "organic," or "made with organic (specified ingredients or food group(s))."

(a) If you have an operation that meets the definition of "production operation," you must be certified as a producer.

(b) If you have an operation that meets the definition of "handling operation," you must be certified as a handler or processor unless you are a certified producer who cleans,

washes, grades, dries, packages, transports, or does similar preparation of your own production.

(c) If you are a certified producer who changes crops, wild crops, or livestock products of your own production into new distinct products by physically, chemically, or otherwise changing the original product, you must also be certified as a processor.

(2) If you are seeking to receive or maintain organic certification, you must submit an application on forms approved by the department.

(a) Application forms must be ~~((signed))~~ submitted by an authorized representative of the business operation and must be accompanied by the appropriate fees in order to be considered.

(b) Application forms are available upon request from the department.

(3) If you are a new applicant, you must include a complete organic system plan with your application.

(4) If you are a certified operation, you must submit an update to your organic system plan on an annual basis. Certified operations may be required by the department to submit a new complete organic system plan whenever there are significant changes to the operation.

(5) Applications for certification must include a list of all organic products produced and/or handled, including site information, sample labels, and complete product profiles for each distinctly labeled organic product.

(a) Certified operations must not use an organic label or make organic claims for any product not included in the operation's organic system plan.

(b) Certified operations may request the addition of new production sites to their organic or transitional certification by submitting maps and complete site applications to the department.

(c) Certified operations may ~~((add))~~ request the addition of new products to their organic certification by submitting sample labels and complete product profiles to the department where applicable.

~~((e))~~ (d) Product profiles must include a complete list of ingredients in the product and processing aids used in manufacturing the product.

(6) Certified operations that do not submit a renewal application and fees to continue certification or do not comply annually with 7 C.F.R. 205.406 may have their certification suspended.

(7)(a) The director shall make one or more inspections per year of each new and renewal applicant to determine compliance with this chapter and chapter 15.86 RCW.

(b) Each separate primary location or facility must receive an annual on-site inspection. The annual on-site inspection includes an audit of required records, examination of production sites, facilities and storage areas, and inspection of any other information deemed necessary by the requirements of this chapter or the National Organic Program, 7 C.F.R. Part 205.

**NEW SECTION**

**WAC 16-157-251 Certification fee schedule.** (1) Producers and handlers of organic products must submit an

application packet and fees to the department each year to receive or maintain certification.

(a) **New applicant fee:** A new application fee of three hundred seventy-five dollars must be submitted with each new application.

(b) **Renewal fee:** A renewal fee must be submitted annually by March 1st with each renewal application. Renewal fees for producers, handlers, and processors are assessed based on the gross annual income received by the operation for the production or handling of organically certified products. The renewal fee is based on the following fee schedule:

GROSS ANNUAL INCOME RECEIVED FROM ORGANIC PRODUCTS IN PREVIOUS CALENDAR YEAR	RENEWAL FEE DUE ANNUALLY ON MARCH 1st
\$ 0 - \$25,000	\$137.50
\$25,001 - \$50,000	\$275.00
\$50,001 - \$75,000	\$412.50
\$75,001 - \$100,000	\$550.00
\$100,001 - \$150,000	\$825.00
\$150,001 - \$200,000	\$1,100.00
\$200,001 - \$250,000	\$1,375.00
\$250,001 - \$300,000	\$1,512.50
\$300,001 - \$400,000	\$1,787.50
\$400,001 - \$500,000	\$2,062.50
\$500,001 - \$750,000	\$2,406.25
\$750,001 - \$1,000,000	\$2,750.00
\$1,000,001 - \$1,500,000	\$3,437.50
\$1,500,001 - \$2,000,000	\$4,125.00
\$2,000,001 - \$3,000,000	\$5,500.00
\$3,000,001 - \$4,000,000	\$6,875.00
\$4,000,001 - \$5,000,000	\$8,250.00
\$5,000,001 - and up	\$8,250 plus 0.1375% of income over \$5,000,000

(i) The maximum renewal fee shall not exceed twenty-five thousand dollars per primary facility or location.

(ii) The minimum renewal fee is four hundred twelve dollars and fifty cents for operations with more than: Twenty-five acres in production (excluding fallow, pasture, hay, haylage, and silage), or more than five production sites, or more than fifteen products.

(iii) Operations certified to the retailer scope are exempt from the gross annual income assessment and are charged a one thousand five hundred dollar renewal fee per retail location or facility.

(iv) Renewal applications and fees submitted after March 1st must include a late fee in addition to the renewal fee.

<b>If a renewal application is submitted after March 1st but before:</b>	<b>The late fee is:</b>
April 1st	\$100.00
May 1st	\$200.00
June 1st	\$300.00
July 1st	\$400.00
August 1st	\$500.00
September 1st	\$600.00

(c) **Inspection fee:** An inspection fee must be submitted after each annual and announced additional inspection conducted by the department. The inspection fee is the sum of the fees associated with the scopes of the inspection. Inspection fees are based on the following fee schedule:

INSPECTION SCOPE	INSPECTION FEE
Crop producer	- \$375
Livestock producer	- \$250
Wild crop producer	- \$100
Handler, processor, or retailer	- \$500

(i) Operations with a producer scope plus either the handler or processor scope and less than two hundred fifty thousand dollars in gross annual income qualify for a three hundred dollar reduction in their inspection fee.

(ii) Each primary location or facility must receive an annual on-site inspection. In the event more than one primary location or facility is included under one certification, the operation will be charged an inspection fee per primary location or facility.

(iii) Additional announced inspections, if necessary to determine compliance or requested by the operation, will be charged to the new applicant or certified operation per the inspection fee table. Unannounced inspections conducted by the department are not charged an inspection fee.

(iv) Out-of-state inspections, if necessary to determine compliance or requested by the operation, shall be charged five hundred dollars plus associated travel costs in addition to the inspection fee.

(2) New and renewal applicants may request additional evaluations throughout the year. A fee is charged to the operation based on the service requested.

(a) **New scope:** The request to add a new scope of certification will be charged to the certified operation at a rate of one hundred dollars per new organic system plan submitted.

(b) **New site application:** Each new site application submitted by a renewal applicant after March 1st will be charged forty dollars per application.

(c) **Land assessment:** A fee of one hundred dollars per inspection will be charged to a renewal applicant when an evaluation of one or more production sites is part of an inspection. The land assessment fee does not apply to the annual examination of a renewal applicant's existing certified sites.

(d) **New product application:** A rate of forty dollars per handled or single ingredient processed product and a rate of sixty dollars per multi-ingredient processed product is

charged to evaluate a new handled or processed product for certification. Product fees are not required when products are submitted with a new application packet.

(e) **New facility:** Certified operations are charged a fee of one hundred dollars per request to evaluate an additional facility.

(f) **Expedited services:** New and renewing applicants may request expedited services. Expedited services are defined as inspections and reviews conducted outside of the normal timelines and may be provided by the department if sufficient staff is available to expedite the work.

(i) Expedited services that do not require an inspection are charged a rate of five hundred dollars to receive an evaluation and certification decision within five business days from the acceptance of the request.

(ii) Expedited services requiring an inspection prior to a certification decision are charged a rate of seven hundred fifty dollars to receive an inspection on an expedited and agreed upon timeline that takes the crop harvest or anticipated production or handling dates into consideration. The review of the inspection report will be completed within five business days from the date of the inspection. The expedite fee is in addition to the inspection fee outlined under the certification fee schedule.

(g) **Mediation fee:** A five hundred dollar fee plus the cost of a formal mediator, if applicable, will be charged to a new or renewal applicant when mediation is accepted by the department.

AMENDATORY SECTION (Amending WSR 06-23-108, filed 11/17/06, effective 12/18/06)

**WAC 16-157-260 Organic and transitional (~~producer~~) certification and the use of logos.** (1) The director must review the application, inspection report, and results of any samples collected to determine if a producer, handler, processor, or retailer has complied with the conditions for organic or transitional certification. A certificate will be issued when the director determines that the (~~producer~~) operation has complied with the conditions for initial or continued organic or transitional (~~producer~~) certification.

(2) Organic producers, handlers, processors, and retailers certified under this chapter may use the organic (~~producer~~) logo, found in WAC 16-157-275, and the USDA organic seal as outlined in 7 C.F.R. Part 205 to identify (~~organic~~) organically certified products.

(3) Transitional products certified under this chapter may use the transitional (~~producer~~) logo, found in WAC 16-157-275, to identify transitional products.

(4) The logos found in WAC 16-157-275 may be printed in black and white as displayed in this chapter. Alternatively, a color version with green leaves may be used. Electronic copies of the logos are available by request from the department.

AMENDATORY SECTION (Amending WSR 02-10-090, filed 4/29/02, effective 5/30/02)

**WAC 16-157-275 Organic and transitional certification logos.**

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ation. A separate application must be made for each export and transaction certificate.

(3) The fee for export and transaction certificates is forty dollars per application.

REPEALER

The following sections of the Washington Administrative Code are repealed:

- WAC 16-157-220 Producer fee schedule.
- WAC 16-157-230 Processor fee schedule.
- WAC 16-157-240 Handler fee schedule.
- WAC 16-157-245 Retailer fee schedule.
- WAC 16-157-250 Inspections.
- WAC 16-157-270 Organic food processor and handler certification and use of logos.

**WSR 19-01-066**

**PERMANENT RULES**

**TRANSPORTATION COMMISSION**

[Filed December 14, 2018, 4:16 p.m., effective June 1, 2019]

Effective Date of Rule: June 1, 2019.

Purpose: This CR-103P changes the effective date of February 1, 2019, included in the CR-103P for the permanent rule adopted by the Washington state transportation commission on July 17, 2018 (WSR 18-17-163), to June 1, 2019. As presented at the public hearing for that rule making on July 17, 2018, the effective date of the rule was set to align with implementation of Washington state department of transportation's (WSDOT) new back office system. WSDOT has since revised the anticipated date this system will be implemented from January 2019 to May 2019.

Aligning the date this rule becomes effective with the implementation of the new back office system is consistent with provisions of law directing rate-setting responsibilities cited in RCW 47.46.100 and 47.56.850, as effectiveness of this rule before implementation of these systems would increase administrative burden and related costs for this rule making, negatively impacting the ability of toll rates for each toll facility to generate sufficient revenues.

The purpose of this rule making is to propose amendments to definitions, toll rate exemptions, and administrative fee rules in chapter 468-270 WAC to provide a consistent set of non-HOV exemptions and fees for all toll facilities in the state. This rule brings consistency to exemption definitions; expands transit, rideshare, private bus, and school bus exemptions to the Tacoma Narrows Bridge facility; eliminates the requirement that emergency vehicles be responding to or returning from a bona fide emergency; and removes the short-term account discount.

Citation of Rules Affected by this Order: New WAC 468-270-085, 468-270-105 and 468-270-115; repealing WAC 468-270-090, 468-270-091, 468-270-100 and 468-270-110; and amending WAC 468-270-030, 468-270-070, 468-270-071, 468-270-095, and 468-270-300.

AMENDATORY SECTION (Amending WSR 06-23-108, filed 11/17/06, effective 12/18/06)

**WAC 16-157-290 Export and transaction certificates.** (1) Organic export and transaction certificates are issued to verify that a specific shipment of organic ~~(food)~~ agricultural products has been produced, processed, and handled in accordance with the National Organic Program, 7 C.F.R. Part 205, or a foreign organic standard.

(2) Applications for export and transaction certificates must be submitted on forms furnished by the department. The applicant must furnish all information requested on the appli-

Statutory Authority for Adoption: RCW 47.46.100, 47.56.030, 47.46.105, 47.56.795, and 47.56.850.

Adopted under notice filed as WSR 18-12-104 on June 5, 2018.

Changes Other than Editing from Proposed to Adopted Version: (1) New WAC 468-270-085 included references to WAC 468-270-100 and 468-270-110, which the proposed rule also repeals. The citations have been changed to WAC 468-270-105 and 468-270-115, which this rule creates as replacements to the repealed sections.

(2) In WAC 468-270-071, corrected reference to SR 520 Bridge toll rate table numbers in introduction, and removed reference to SR 520 Bridge short-term account rates in week-end section of Table 2 (SR 520 Two-Axle Vehicle Toll Rates).

(3) In WAC 468-270-300, removed proposed change to table number of "Customer Fees and Discounts" table from Table 12 to Table 7. An upcoming rule making for SR 99 Tunnel toll rates will add new tables 7-11 back to chapter 468-270 WAC, at which time [the] table will again be Table 12. This change reduces the administrative burden for both rule-making processes.

Number of Sections Adopted in Order to Comply with Federal Statute: New 0, Amended 1, Repealed 0; Federal Rules or Standards: New 0, Amended 1, Repealed 0; or Recently Enacted State Statutes: New 0, Amended 0, Repealed 0.

Number of Sections Adopted at the Request of a Non-governmental Entity: New 0, Amended 1, Repealed 0.

Number of Sections Adopted on the Agency's own Initiative: New 3, Amended 5, Repealed 4.

Number of Sections Adopted in Order to Clarify, Streamline, or Reform Agency Procedures: New 3, Amended 5, Repealed 4.

Number of Sections Adopted using Negotiated Rule Making: New 0, Amended 0, Repealed 0; Pilot Rule Making: New 0, Amended 0, Repealed 0; or Other Alternative Rule Making: New 0, Amended 0, Repealed 0.

Date Adopted: December 12, 2018.

Reema Griffith  
Executive Director

### WSR 19-01-078

#### PERMANENT RULES

#### DEPARTMENT OF LICENSING

[Filed December 17, 2018, 11:57 a.m., effective January 17, 2019]

Effective Date of Rule: Thirty-one days after filing.

Purpose: These rule changes adopt federal commercial driver licenses (CDL) training provider requirements.

Citation of Rules Affected by this Order: New WAC 308-100-036; repealing WAC 308-100-031 and 308-100-038; and amending WAC 308-100-005, 308-100-033, 308-100-035, 308-100-040, 308-100-100, 308-100-110, 308-100-140, 308-100-150, 308-100-160, 308-100-170, and 308-100-180.

Statutory Authority for Adoption: RCW 46.01.110, 46.25.010, 46.25.060, and 46.25.140.

Other Authority: 49 C.F.R. Parts 380, 383, and 384.

Adopted under notice filed as WSR 18-22-134 on November 7, 2018.

Number of Sections Adopted in Order to Comply with Federal Statute: New 0, Amended 0, Repealed 0; Federal Rules or Standards: New 1, Amended 11, Repealed 2; or Recently Enacted State Statutes: New 0, Amended 0, Repealed 0.

Number of Sections Adopted at the Request of a Non-governmental Entity: New 0, Amended 0, Repealed 0.

Number of Sections Adopted on the Agency's own Initiative: New 1, Amended 11, Repealed 2.

Number of Sections Adopted in Order to Clarify, Streamline, or Reform Agency Procedures: New 1, Amended 11, Repealed 2.

Number of Sections Adopted using Negotiated Rule Making: New 0, Amended 0, Repealed 0; Pilot Rule Making: New 0, Amended 0, Repealed 0; or Other Alternative Rule Making: New 1, Amended 11, Repealed 2.

Date Adopted: December 17, 2018.

Damon Monroe  
Rules Coordinator

AMENDATORY SECTION (Amending WSR 08-16-017, filed 7/25/08, effective 8/25/08)

**WAC 308-100-005 Definitions.** The definitions of this section apply throughout this chapter unless the context clearly requires otherwise:

(1) (~~"Agribusiness" means a private carrier who in the normal course of business primarily transports:~~

~~(a) Farm machinery, farm equipment, implements of husbandry, farm supplies and materials used in farming;~~

~~(b) Agricultural inputs, such as seed, feed, fertilizer and crop protection products;~~

~~(c) Unprocessed agricultural commodities as defined in RCW 17.21.020, where such commodities are produced by farmers, ranchers, vineyardists, or orchardists; or~~

~~(d) Any combination of (a) through (c).~~

(2)) "Behind-the-wheel (BTW) range training" means training provided by a BTW instructor when a student has actual control of the power unit during a driving lesson conducted for backing, street driving, and proficiency development. BTW range training does not include time a student spends observing the operation of a CMV when he or she is not in control of the vehicle.

(2) "Behind-the-wheel (BTW) instructor" means an individual who provides BTW training involving the actual operation of a CMV by a student on a range or a public road and meets one of these qualifications:

(a) Holds a CDL of the same (or higher) class and with all endorsements necessary to operate the CMV for which training is to be provided and has at least two years of experience driving a CMV requiring a CDL of the same or higher class and/or the same endorsement and meets all applicable state qualification requirements for CMV instructors; or

(b) Holds a CDL of the same (or higher) class and with all endorsements necessary to operate the CMV for which training is to be provided and has at least two years of expe-

rience as a BTW CMV instructor and meets all applicable state qualification requirements for CMV instructors.

**(c) Exception applicable to (a) and (b) of this definition:** A BTW instructor who provides training solely on a range which is not a public road is not required to hold a CDL of the same (or higher) class and with all endorsements necessary to operate the CMV for which training is to be provided, as long as the instructor previously held a CDL of the same (or higher) class and with all endorsements necessary to operate the CMV for which training is to be provided, and complies with the other requirements set forth in (a) or (b) of this definition.

(d) If an instructor's CDL has been canceled, suspended, or revoked due to any of the disqualifying offenses identified in C.F.R. 383.51, the instructor is prohibited from engaging in BTW instruction for two years following the date his or her CDL is reinstated.

(3) "Certified test route" means:

(a) Test route that is approved and assigned by the department.

(b) The areas for completing the pretrip inspection, basic controls and road test as approved by the department for the administration of a commercial driver license skills test.

(4) "Classroom/theory instruction" means (~~training provided~~) knowledge instruction on the operation of a CMV and related matters provided by a theory instructor through lectures, demonstrations, audiovisual presentations, computer-based instruction, driving simulation devices, or similar means. Instruction occurring outside a classroom is included if it does not involve actual operation of a commercial motor vehicle and its components by the student.

~~((3))~~ (5) "Employee" means any operator of a commercial motor vehicle, including full time, regularly employed drivers; casual, intermittent or occasional drivers; leased drivers and independent, owner operator contractors, while in the course of operating a commercial motor vehicle, who are either directly employed by or under lease to an employer.

~~((4))~~ (6) "Employer" means a person or entity that hires one or more individuals to operate a commercial motor vehicle on a regular basis during their normal course of employment and whose primary purpose is not to train operators of commercial motor vehicles.

~~((5))~~ (7) "Hour," as used in connection with training requirements, means no less than fifty minutes of training or instruction.

~~((6))~~ (8) "Lab" means a teaching environment involving a nonmoving vehicle for hands on instruction supported by classroom material.

~~((7))~~ (9) "Observation" means the careful watching, as a passenger in a commercial motor vehicle, of street driving during the hours of course instruction, recording lessons learned and applying classroom material.

~~((8))~~ (10) "Proficiency development" means driving exercises that will allow more time to develop the skills needed to demonstrate proficiency, competence, and confidence in the street driving and backing maneuvers portions of a course.

~~((9))~~ (11) "Range" means an area closed from the public where driving activities are practiced, free of obstructions, enables the driver to maneuver safely and free from interfer-

ence from other vehicles and hazards, and has adequate sight lines.

~~((10))~~ (12) "Street driving" means driving a commercial motor vehicle on a public road, where the traffic laws are enforced, consisting of city street, country road, and freeway driving.

~~((11))~~ (13) "Theory instructor" means an individual who provides knowledge instruction on the operation of a CMV and meets one of these qualifications:

(a) Holds a CDL of the same (or higher) class and with all endorsements necessary to operate the CMV for which training is to be provided and has at least two years of experience driving a CMV requiring a CDL of the same (or higher) class and/or the same endorsement and meets all applicable state qualification requirements for CMV instructors; or

(b) Holds a CDL of the same (or higher) class and with all endorsements necessary to operate the CMV for which training is to be provided and has at least two years of experience as a BTW CMV instructor and meets all applicable state qualification requirements for CMV instructors.

**(c) Exceptions applicable to (a) and (b) of this definition:** An instructor is not required to hold a CDL of the same (or higher) class and with all endorsements necessary to operate the CMV for which training is to be provided, if the instructor previously held a CDL of the same (or higher) class and complies with the other requirements set forth in (a) or (b) of this definition.

(d) If an instructor's CDL has been canceled, suspended, or revoked due to any of the disqualifying offenses identified in C.F.R. 383.51, the instructor is prohibited from engaging in theory instruction for two years following the date his or her CDL is reinstated.

(14) "Training institute/provider" means an entity that is approved by the department, to provide training as required by RCW 46.25.060 (1)(a)(ii):

(a) An institution of higher learning accredited by the Northwest Association of Schools and Colleges or by an accrediting association recognized by the higher education board;

(b) A licensed private vocational school as that term is defined by RCW 28C.10.020(7); or

(c) An entity in another state that the department has determined provides training or instruction equivalent to that required under WAC 308-100-033 or 308-100-035.

**AMENDATORY SECTION** (Amending WSR 08-16-017, filed 7/25/08, effective 8/25/08)

**WAC 308-100-033 Minimum training requirements.**

(1) (~~To ensure the quality of the training given, a training course acceptable to the director must:~~

~~(a) Be)~~ Approval for a course of instruction in the operation of a commercial motor vehicle will only be granted if the course of instruction:

(a) Is provided by, and under the direct supervision of, a training (~~institute~~) provider that has an application with the department approving the course of instruction offered by the training provider. Beginning on February 7, 2020, the training provider must also be listed on the Federal Motor Carrier

Safety Administration's Training Provider Registry that is established under 49 C.F.R. 380.700; and

(b) ~~((Be not less than:~~

~~(i) One hundred sixty hours if the applicant is applying for a class A commercial driver's license, including))~~ **Class A course - Minimum requirements for approval:** A course of instruction for students seeking a class A CDL must follow the class A training curriculum defined in C.F.R. Appendix A to Part 380 as it existed on the (effective date of the WAC). The course must include not less than:

~~((A))~~ (i) Forty hours of classroom instruction;

~~((B))~~ (ii) Eighteen hours of street driving training;

~~((C))~~ (iii) Sixteen hours of training in backing maneuvers;

~~((D))~~ (iv) Sixteen hours of proficiency development; and

~~((E))~~ (v) Seventy hours of combined lab training, range training, and observation((;

~~(ii) Forty eight hours if the applicant is applying for a class B commercial driver's license, including))~~.

(c) **Class B course - Minimum Requirements:** A course of instruction for students seeking a class B CDL must follow the class B training curriculum defined in C.F.R. Appendix B to Part 380 as it existed on the (effective date of the WAC). The course must include not less than:

~~((A) Twenty))~~ (i) Forty hours of classroom instruction;

~~((B))~~ (ii) Fourteen hours of street driving training;

~~((C) Four))~~ (iii) Eight hours of training in backing maneuvers;

~~((D) Four))~~ (iv) Eight hours of proficiency development; and

~~((E) Six))~~ (v) Ten hours of combined lab training, range training, and observation((;

~~(iii) Thirty six hours if the applicant is applying for a class C commercial driver's license, including))~~.

(d) **Class C course - Minimum requirements:** A course of instruction for students seeking a class C CDL must follow the class B training curriculum defined in C.F.R. Appendix B to Part 380 as it existed on the (effective date of the WAC). The course must include not less than:

~~((A) Twenty))~~ (i) Forty hours of classroom instruction;

~~((B) Eight))~~ (ii) Fourteen hours of street driving training;

~~((C) Two))~~ (iii) Eight hours of training in backing maneuvers;

~~((D) Two))~~ (iv) Eight hours of proficiency development; and

~~((E) Four))~~ (v) Ten hours of combined lab training, range training, and observation.

~~((2) A licensed private vocational school must maintain individual student records. Student records shall document for each student:~~

~~(a) Course attendance, starting, and ending dates;~~

~~(b) The dates and times for each session;~~

~~(c) The number of hours spent on each category of instruction covered; and~~

~~(d) The name and signature of the instructor who provided each session of instruction or training.~~

~~(3) Student records must be maintained by a licensed private vocational school for the past five years from the date~~

~~instruction or training has ended and must be made available for inspection at the request of the department.~~

~~(4) A licensed private vocational school may issue a certificate of completion on a form provided by the department to a student who has received the training required under subsection (1) of this section. An accredited institution of higher learning may issue a certificate of completion to a student who has received appropriate training. A certificate issued under this subsection must be used by a student to demonstrate to the department that he or she has met the minimum requirements required under this section.)~~ (e) **Upgrade from either class B or C to class A - Minimum requirements:** A course of instruction for students seeking to upgrade from a class B or C to a class A must follow the class A behind the wheel training curriculum defined in C.F.R. Appendix A to Part 380 as it existed on the (effective date of the WAC). The course must include not less than:

~~(i) Eighteen hours of street driving training;~~

~~(ii) Sixteen hours of training in backing maneuvers;~~

~~(iii) Sixteen hours of proficiency development; and~~

~~(iv) Thirty hours of combined lab training, range training, and observation.~~

(f) **Upgrade from a class C to class B - Minimum requirements:** A course of instruction for students seeking to upgrade from a class C to a class B must follow the class B behind the wheel training curriculum defined in C.F.R. Appendix B to Part 380 as it existed on the (effective date of the WAC). The course must include not less than:

~~(i) Fourteen hours of street driving training;~~

~~(ii) Eight hours of training in backing maneuvers;~~

~~(iii) Eight hours of proficiency development; and~~

~~(iv) Ten hours of combined lab training, range training, and observation.~~

(g) **Passenger endorsement - Minimum requirements:** A course of instruction for students seeking a passenger endorsement must follow the passenger endorsement training curriculum defined in C.F.R. Appendix C to Part 380 as it existed on the (effective date of the WAC). The course must include not less than:

~~(i) Four hours of classroom/theory instruction;~~

~~(ii) Ten hours of proficiency development.~~

(h) **School bus endorsement - Minimum requirements:** A course of instruction for students seeking a school bus endorsement must follow the school bus endorsement training curriculum defined in C.F.R. Appendix D to Part 380 as it existed on the (effective date of the WAC). The course must include not less than:

~~(i) Twenty hours of classroom/theory instruction;~~

~~(ii) Ten hours of proficiency development.~~

(i) **Passenger and school bus endorsement - Minimum requirements:** A course of instruction for students seeking a passenger and school bus endorsement must follow the passenger and school bus endorsement training curriculum defined in C.F.R. Appendix C and D to Part 380 as it existed on the (effective date of the WAC). The course must include not less than:

~~(i) Twenty hours of classroom/theory instruction;~~

~~(ii) Ten hours of proficiency development.~~

(j) **Hazardous material endorsement - Minimum requirements:** A course of instruction for students seeking a

HAZMAT endorsement must follow the hazardous material endorsement training curriculum defined in C.F.R. Appendix E to Part 380 as it existed on the (effective date of the WAC). The course must include not less than: Twenty hours of classroom/theory instruction:

(k) In addition to the class A, B, and C curriculum as defined above, each class room training must include a minimum thirty minute section on "Truckers Against Trafficking."

(2) Students must complete all portions of the training within one year of completing the first portion.

AMENDATORY SECTION (Amending WSR 08-16-017, filed 7/25/08, effective 8/25/08)

**WAC 308-100-035 Employer certification.** (1) An employer may certify ~~((an applicant for a commercial driver's license as having))~~ that one of its employees has the skills and training necessary to operate a commercial motor vehicle safely by certifying the employee has demonstrated proficiency in the elements of the course of instruction required in WAC 308-100-033, with the exception of the minimum required hours, on a form provided by the department. The certification must include the classification or endorsements of commercial motor vehicle that the employee ~~((or prospective employee))~~ is competent to operate.

(2) The certification must be provided to the department electronically. Beginning on February 7, 2020, an employer may only certify that an applicant for a CDL has the skills and training necessary to operate a commercial motor vehicle safely if the employee has successfully completed training with a training provider listed on FMCSA's Training Provider Registry established under 49 C.F.R. 380.700.

(3) The department must receive an electronic notification of successful completion prior to an employee taking a skills test.

#### NEW SECTION

**WAC 308-100-036 Reporting training results.** (1) A training provider and employer must provide electronic notification to the department when a student successfully completes a course of instruction described in WAC 308-100-033 for schools and WAC 308-100-035 for employers.

(2) The notification of course completion must consist of:

(a) A certification that the student/employee demonstrated proficiency in all elements of the curriculum required in subsection (1) of this section;

(b) Driver license number;

(c) Phone number;

(d) Type of training;

(e) Classroom hours completed;

(f) Backing hours completed;

(g) Street driving hours completed;

(h) Proficiency hours completed;

(i) Range hours completed;

(j) Course start date;

(k) Course completion date; and

(l) Instructor.

(3) The department must receive an electronic notification of successful completion prior to a student/employee taking a skills test.

AMENDATORY SECTION (Amending WSR 07-24-025, filed 11/28/07, effective 12/29/07)

**WAC 308-100-040 Examination requirement for commercial driver's license.** ~~((+))~~ Persons applying for a commercial driver's license will be required to pass a written examination testing their knowledge of motor vehicle laws, rules of the road, and of the class of vehicle for which they are seeking the commercial driver's license. They will also be required to demonstrate successfully their operating skills for the class of vehicle and endorsement(s) for which they seek the commercial driver's license. ~~((Skill examinations under this subsection shall consist of three components:~~

~~(a) Pretrip inspection;~~

~~(b) Basic controls; and~~

~~(c) Road test.~~

(2) The department may conduct written examinations in a group setting. Group examinations may be conducted at job sites, union halls, or other locations deemed appropriate by the department. If the department is conducting the written examination in a group setting, the payment of the basic fee and knowledge examination fee may be deferred until the applicant completes his or her application for a commercial driver's license.) The department will conduct knowledge and skills examinations that at a minimum meet the requirements of 49 C.F.R. 383.133, as it existed on (effective date of WAC).

AMENDATORY SECTION (Amending WSR 00-18-068, filed 9/1/00, effective 10/2/00)

**WAC 308-100-100 Intrastate waiver.** A person who is not physically qualified to drive a commercial motor vehicle under section 391.41 of the Federal Motor Carrier Safety Regulations (49 C.F.R. 391.41), and who is otherwise qualified to drive a motor vehicle in the state of Washington, may apply to the department of licensing for an intrastate waiver. Upon receipt of the application for an intrastate waiver, the department shall review and evaluate the driver's physical qualifications to operate a motor vehicle in the state of Washington, and shall issue an intrastate waiver if the applicant meets all applicable licensing requirements ~~((and is qualified to operate a motor vehicle within the state of Washington))~~.

AMENDATORY SECTION (Amending WSR 00-18-068, filed 9/1/00, effective 10/2/00)

**WAC 308-100-110** ~~((Expiration [date]—Extension or renewal by mail))~~ **Renewal online.** Except as otherwise provided by this section, any person who is outside the state at the time his or her commercial driver's license expires may request ~~((an extension or))~~ a renewal by mail or online as permitted by RCW 46.20.120(3). The department shall not renew an endorsement to a commercial driver's license for the operation of a vehicle transporting hazardous materials by mail ~~((, and any extension granted for such endorsement shall~~

be for no more than forty-five days after the date the commercial driver's license would normally expire)) or online.

AMENDATORY SECTION (Amending WSR 02-04-076, filed 2/1/02, effective 3/4/02)

**WAC 308-100-140 Third-party tester.** (1) The department may enter into an agreement with third-party testers to conduct the commercial driver's license classified skill examination.

(a) An agreement will only be made where the department has determined that a need for a third-party tester exists in the location covered by the third-party tester, and that the third-party tester is otherwise qualified. In counties where there are no third-party testers, or where not extending or renewing an agreement would result in no third-party testers, the department will not base the determination of need solely on the expected number of applicants for a commercial driver's license in those locations. The department may suspend an agreement with a third-party tester for any length of time upon a showing of good cause.

(b) An agreement between the department and a third-party tester will be valid for no more than two years, provided that the department may extend an agreement for up to an additional two years at its discretion.

(c) The department may renew an agreement if it has determined that a need for a third-party tester still exists in the location covered by the third-party tester.

(2) Allow the department and/or FMCSA to conduct announced and unannounced audits.

(3) Allow the department and/or FMCSA co-score along with the third-party examiner during a CDL skills test.

(4) Must initiate and maintain a bond in an amount determined by the department. Not required for a third-party tester that is a government entity.

(5) Must only use third-party examiners who have successfully completed a formal CDL skills test examiner training course as prescribed by the state and have been certified by the state to conduct skills test.

(6) Must only use third-party examiners with an active status maintained by the department.

(7) Must submit skills testing appointments to the state no later than three days prior to conducting test.

(8) Must maintain copies of the following records at its principal place of business.

(a) A copy of the state certificate authorizing to administer CDL skills tests for the classes and types of CMVs listed;

(b) A copy of the current third-party agreement;

(c) A copy of each completed CDL skills test scoring sheet for the current year and the past two calendar years;

(d) A copy of the state approved test route(s); and

(e) A copy of each third-party examiner's training record.

(9) Must submit skills test scores within the same day as the test conducted.

(10) Prohibit a third-party examiner from:

(a) Testing other third-party examiners.

(b) Testing a driver who has been trained by the examiner, regarding commercial vehicle operation or skills test practice.

(c) Testing any family member, relative or friend.

(d) Having another examiner who is a family member conduct tests for your school or organization.

(e) Testing a driver who has attended a school owned or operated by the same ownership organization you work for except for government owned and operated organizations.

AMENDATORY SECTION (Amending WSR 00-18-068, filed 9/1/00, effective 10/2/00)

**WAC 308-100-150 Third-party ((tester)) examiner—Qualifications.** ~~((A third-party tester is a person meeting the minimum qualifications who is trained, tested and certified by the department to conduct a standardized behind-the-wheel test of a commercial driver, such test to be used in determining the driver's qualification to obtain a commercial driver's license.))~~ A person applying to be a third-party ((tester)) examiner must meet the following requirements:

~~(1) ((Be qualified and licensed to operate and have no less than two years of experience operating vehicles representative of the class of vehicle for which he or she would conduct testing and has no less than five years of total driving experience;~~

~~(2)) Hold an active CDL;~~

(2) Have two years or more experience operating commercial motor vehicles representative of the class of vehicle for which he or she would conduct testing;

(3) Have five years of total driving experience;

(4) A check of the person's driving record shows: (((a)))

The person has not been convicted or found to have committed any of the following offenses within the three year period preceding the date of application:

(((b))) (a) Driving a motor vehicle while under the influence of alcohol or any drug;

(((c))) (b) Driving a commercial motor vehicle while the alcohol concentration in the person's system is 0.04 or more as determined by any testing methods approved by law in this state or any other state or jurisdiction;

(((d))) (c) Leaving the scene of an accident involving a commercial motor vehicle driven by the person;

(((e))) (d) Using a commercial motor vehicle in the commission of a felony; ((and

(+)))

(e) Refusing to submit to a test to determine the driver's alcohol concentration while driving a motor vehicle((;

(b) No more than one conviction or finding that the person committed a serious)); and

(f) Convicted of and found to have committed any of the following felony offenses or any crime involving fraud, moral turpitude, dishonesty, or corruption.

(5) The applicant has not been convicted of no more than one conviction or finding that the person committed two or more serious traffic violations, as defined in WAC 308-100-130, within three years preceding the date of application;

(6) The applicant has not been convicted of four or more moving traffic violations, as defined in WAC 308-104-160, within three years preceding the date of application;

(7) The applicant has not been convicted of two or more moving traffic violations, as defined in WAC ((308-100-130 (Serious traffic violations), within three years)) 308-104-160, within one year preceding the date of application;

~~((e))~~ (8) No driver's license suspension, cancellation, revocation, disqualification, or denial within three years preceding the date of application; ~~(and~~

~~(d) No more than one conviction or finding that the person committed a moving traffic violation within one year or more than three convictions or findings that the person committed moving traffic violations within three years preceding the date of application. Defective equipment violations shall not be considered moving traffic violations for the purpose of determining the applicant's qualification;~~

~~(3) Complete an acceptable application on a form prescribed by the department;~~

~~(4) Have no conviction of a felony or any crime involving violence, dishonesty, deceit, indecency, degeneracy, or moral turpitude;~~

~~(5))~~

(9) Maintain or be employed by a business or agency in which driver testing records would be maintained and available to the state or federal representatives for announced or unannounced inspections and audits;

~~((6))~~ (10) Be or be employed by a licensed business or government agency within the state of Washington or within fifty miles of state boundaries;

~~((7))~~ (11) Submit to announced or unannounced audits; ~~(and~~

~~(8))~~

(12) Attend all training required by the department of licensing(-);

(13) Must test a minimum of ten different applicants per calendar year or at the discretion of the department, complete recertification requirements; and

(14) Failure to maintain the above qualifications will result in the termination of a third-party ~~((tester agreement))~~ examiner.

AMENDATORY SECTION (Amending WSR 89-18-003, filed 8/24/89, effective 9/24/89)

**WAC 308-100-160 Test requirements.** ~~((Any test conducted by a third party tester shall conform to the testing requirements established by the department. If the test includes additional requirements, the performance of an applicant for a commercial driver's license on the additional portions shall not be considered for commercial driver license skill testing purposes.)) The skills test given by a third party are the same as those that would otherwise be given by the state using the same version of the skills test, the same written instructions for test applicants, and the same score sheets as those prescribed by the department. Any applicant aggrieved by the outcome of a test conducted by a third-party ~~((tester))~~ examiner may petition the department for review of the scoring procedure used by the third-party ~~((tester))~~ examiner.~~

AMENDATORY SECTION (Amending WSR 89-18-003, filed 8/24/89, effective 9/24/89)

**WAC 308-100-170 Test route approval.** (1) The test route used by a third-party ~~((tester))~~ examiner must be approved by the department prior to its use for commercial driver license skill testing purposes.

(2) Skills testing is prohibited at a training facility or route except for transit organizations and educational school districts that are owned and operated by a government entity.

AMENDATORY SECTION (Amending WSR 17-22-074, filed 10/27/17, effective 11/27/17)

**WAC 308-100-180 Third-party testing fee.** (1)(a) Except as provided in WAC 308-100-190 or ~~((subsection (4))~~(b) of this ~~((section))~~ subsection, the base fee for each classified skill examination or combination of skill examinations conducted by a third-party tester shall not be more than two hundred fifty dollars and entitles the applicant to take the examination up to two times in order to pass.

(b) If the applicant's primary use of a commercial driver's license is for any of the following, then the examination fee for each commercial driver's license skill examination conducted by a third-party tester shall not be more than two hundred twenty-five dollars and entitles the applicant to take the examination up to two times in order to pass:

(i) Public benefit not-for-profit corporations that are federally supported head start programs; or

(ii) Public benefit not-for-profit corporations that support early childhood education and assistance programs as described in RCW 43.215.405(4).

(c) If the applicant's primary use of a commercial driver's license is to drive a school bus, the applicant shall pay a fee of no more than one hundred dollars for the classified skill examination or combination of classified skill examinations conducted by the department and entitles the applicant to take the examination up to two times in order to pass.

(2) The base fee shall apply only to the conducting of the examination, and is separate from any additional fees, such as vehicle use fees, which may be charged by the third-party tester. Any additional fees to be charged shall be reported to the department.

(3) Fees owed to a third-party tester under this section must be paid by the applicant as provided in the third-party tester agreement entered into under WAC 308-100-140.

(4) Fees paid for a test that is deemed invalid by the department must be reimbursed immediately to the applicant.

(5) The fees in this section are in addition to the regular drivers' licensing fees.

#### REPEALER

The following sections of the Washington Administrative Code are repealed:

WAC 308-100-031 Skill and training requirements for commercial driver's license.

WAC 308-100-038 Commercial driver's license—Additional restrictions.

**WSR 19-01-082**  
**PERMANENT RULES**  
**BELLEVUE COLLEGE**

[Filed December 17, 2018, 4:45 p.m., effective January 17, 2019]

Effective Date of Rule: Thirty-one days after filing.

Purpose: Repeal chapter 132H-125 WAC, Student conduct code of Bellevue College, and replace it with chapter 132H-126 WAC.

Citation of Rules Affected by this Order: New chapter 132H-126 WAC; and repealing chapter 132H-125 WAC.

Statutory Authority for Adoption: RCW 28B.50.140 (13); chapter 34.05 RCW.

Other Authority: RCW 28B.50.140(13); Violence Against Women Reauthorization Act of 2013/Campus SaVE Act, 20 U.S.C. §1092(f); Title IX of the Education Amendments of 1972, 20 U.S.C. §1681 et seq.

Adopted under notice filed as WSR 18-15-069 on July 17, 2018.

Changes Other than Editing from Proposed to Adopted Version: Replaced vice president for student affairs references with provost for academic and student affairs through [throughout] document due to discontinuation of vice president of student affairs position, WAC 132H-126-010, 132H-126-040 (4) and (14).

Number of Sections Adopted in Order to Comply with Federal Statute: New 0, Amended 0, Repealed 0; Federal Rules or Standards: New 0, Amended 0, Repealed 0; or Recently Enacted State Statutes: New 0, Amended 0, Repealed 0.

Number of Sections Adopted at the Request of a Non-governmental Entity: New 0, Amended 0, Repealed 0.

Number of Sections Adopted on the Agency's own Initiative: New 20, Amended 0, Repealed 20.

Number of Sections Adopted in Order to Clarify, Streamline, or Reform Agency Procedures: New 20, Amended 0, Repealed 20.

Number of Sections Adopted using Negotiated Rule Making: New 0, Amended 0, Repealed 0; Pilot Rule Making: New 0, Amended 0, Repealed 0; or Other Alternative Rule Making: New 0, Amended 0, Repealed 0.

Date Adopted: November 14, 2018.

Tracy Biga MacLean  
Associate Director

**Chapter 132H-126 WAC**

**STUDENT CONDUCT CODE OF BELLEVUE COLLEGE**

NEW SECTION

**WAC 132H-126-010 Authority.** The board of trustees, acting pursuant to RCW 28B.50.140, delegates to the president of Bellevue College the authority to administer student disciplinary action. Administration of the disciplinary procedures is the responsibility of the provost for academic and student affairs or designee and/or the designated student conduct officer. The student conduct officer shall serve as the principal investigator and administrator for alleged violations of this code.

NEW SECTION

**WAC 132H-126-020 Statement of student rights.** As members of the academic community, students are encouraged to develop the capacity for critical judgment and to engage in an independent search for truth. Freedom to teach and freedom to learn are inseparable facets of academic freedom. The freedom to learn depends upon appropriate opportunities and conditions in the classroom, on the campus, and in the larger community. Students should exercise their freedom with responsibility. The responsibility to secure and to respect general conditions conducive to the freedom to learn is shared by all members of the college community.

The following enumerated rights are guaranteed to each student within the limitations of statutory law and college policy, which are deemed necessary to achieve the educational goals of the college:

(1) Academic freedom.

(a) Students are guaranteed the rights of free inquiry, expression, and assembly upon and within college facilities that are generally open and available to the public.

(b) Students are free to pursue appropriate educational objectives from among the college's curricula, programs, and student affairs, subject to the limitations of RCW 28B.50.090 (3)(b).

(c) Students shall be protected from academic evaluation that is arbitrary, prejudiced, or capricious, but are responsible for meeting the standards of academic performance established by each of their instructors.

(d) Students have the right to a learning environment that is free from unlawful discrimination, inappropriate and disrespectful conduct, and any and all harassment, including sexual harassment.

(2) Due process.

(a) The rights of students to be secure in their persons, quarters, papers, and effects against unreasonable searches and seizures is guaranteed.

(b) No disciplinary sanction may be imposed on any student without notice to the accused of the nature of the charges.

(c) A student accused of violating this code of student conduct is entitled, upon request, to procedural due process as set forth in this chapter.

NEW SECTION

**WAC 132H-126-030 Statement of jurisdiction.** (1)

The student conduct code shall apply to student conduct that occurs:

(a) On college premises;

(b) At or in connection with college-sponsored activities;

or

(c) Off-campus, if in the judgment of the college the conduct adversely affects the college community or the pursuit of its objectives.

(2) Jurisdiction extends to locations in which students are engaged in official college activities including, but not limited to, foreign or domestic travel, activities funded by the Bellevue College's associated student government, athletic events, training internships, cooperative and distance education, online education, internships, practicums, supervised

work experiences, or any other college-sanctioned social or club activities.

(3) The college has sole discretion, on a case-by-case basis, to determine whether the student conduct code will be applied to conduct that occurs off campus.

(4) Students are responsible for their conduct from the time of application for admission through the actual receipt of a degree, even though conduct may occur before classes begin or after classes end, as well as during the academic year and during periods between terms of actual enrollment.

(5) These standards shall apply to a student's conduct even if the student withdraws from college while a disciplinary matter is pending.

(6) In addition to initiating discipline proceedings for violation of the student conduct code, the college may refer any violations of federal, state, or local laws to civil and criminal authorities for disposition. The college shall proceed with student disciplinary proceedings regardless of whether the underlying conduct is subject to civil or criminal prosecution.

#### NEW SECTION

**WAC 132H-126-040 Definitions.** The following definitions shall apply for the purposes of this student conduct code:

(1) **"Business day"** means a weekday, excluding weekends and college holidays.

(2) **"College official"** is an employee of the college performing assigned administrative, security, professional, or paraprofessional duties.

(3) **"College premises"** shall include all campuses of the college, wherever located, and includes all land, buildings, facilities, vehicles, equipment, other property owned, used, or controlled by the college, study abroad program, retreat, and conference sites, and college-sponsored and/or college-hosted online platforms.

(4) **"Conduct review officer"** is the provost for academic and student affairs or designee or other college administrator designated by the president to be responsible for receiving and reviewing or referring appeals of student disciplinary actions in accordance with the procedures of this code. The president is authorized to reassign any and all of the conduct review officer's duties or responsibilities, as set forth in this chapter, as may be reasonably necessary.

(5) **"Disciplinary action"** is the process by which the student conduct officer imposes discipline against a student for a violation of the student conduct code.

(6) **"Disciplinary appeal"** is the process by which an aggrieved student can appeal the discipline imposed by the student conduct officer. Disciplinary appeals from a suspension in excess of ten instructional days or a dismissal are heard by the student conduct committee. Appeals of all other appealable disciplinary action shall be reviewed through brief adjudicative proceedings (BAP).

(7) **"Filing"** is the process by which a document is officially delivered to a college official responsible for facilitating a disciplinary review. Papers required to be filed shall be deemed filed upon actual receipt during office hours at the

office of the specified college official. Unless otherwise provided, filing shall be accomplished by:

(a) Hand delivery of the document to the specified college official or college official's assistant; or

(b) Sending the document by email and first class mail to the specified college official's college email and office address.

(8) **"Impacted party"** is a student or another member of the college community directly affected by an alleged violation of this student conduct code. The impacted party may be the reporting party, but not necessarily; witnesses or other third parties may report concerns. In any case involving an allegation of sexual misconduct as defined in this student conduct code, an impacted party is afforded certain rights under this student conduct code including, but not limited to:

(a) The right to be informed of all orders issued in the disciplinary case in which this person is an impacted party;

(b) The right to appeal a disciplinary decision; and

(c) The right to be accompanied by a process advisor.

(9) **"Process advisor"** is a person selected by a responding party or an impacted party to provide support and guidance during disciplinary proceedings under this student conduct code.

(10) **"Responding party"** is a student against whom disciplinary action is initiated. Each responding party is afforded certain rights including, but not limited to:

(a) The right to be informed of all orders issued in the responding party's disciplinary case;

(b) The right to appeal a disciplinary decision; and

(c) The right to be accompanied by a process advisor.

(11) **"Service"** is the process by which a document is officially delivered to a party. Service is deemed complete upon hand delivery of the document or upon the date the document is emailed and deposited in the mail. Unless otherwise provided, service upon a party shall be accomplished by:

(a) Hand delivery of the document to the party; or

(b) Sending the document by email and by certified mail or first class mail to the party's last known address.

(12) **"Sexual misconduct"** includes prohibited sexual- or gender-based conduct by a student including, but not limited to, sexual harassment, sexual violence, sexual exploitation, indecent exposure, or relationship violence.

(13) **"Student"** includes all persons taking courses at or through the college, whether on a full-time or part-time basis, and whether such courses are credit courses, noncredit courses, online courses, or otherwise. Persons who withdraw, graduate, or complete courses after the date of an alleged violation, who are not officially enrolled for a particular term but who have a continuing relationship with the college, or who have been notified of their acceptance for admission are considered "students."

(14) **"Student conduct officer"** is a college administrator designated by the president or provost for academic and student affairs or designee to be responsible for implementing and enforcing the student conduct code. The president or provost for academic and student affairs or designee is authorized to reassign any and all of the student conduct officer's duties or responsibilities, as set forth in this chapter, as may be reasonably necessary.

(15) "**The president**" is the president of the college. The president is authorized to delegate any and all of their responsibilities, as set forth in this chapter, as may be reasonably necessary.

#### NEW SECTION

**WAC 132H-126-100 Prohibited student conduct.** The college may impose disciplinary sanctions against a student who commits or attempts to commit, or aids, abets, incites, encourages, or assists another person to commit the following acts of misconduct:

(1) **Abuse of others.** Assault, physical abuse, verbal abuse, threat(s), intimidation, or other conduct that harms, threatens, or is reasonably perceived as threatening the health or safety of another person or another person's property unless otherwise protected by law.

(2) **Academic dishonesty.** Any act of academic dishonesty including, but not limited to, cheating, plagiarism, and fabrication.

(a) **Cheating.** Any attempt to give or obtain unauthorized assistance relating to the completion of an academic assignment.

(b) **Plagiarism.** Taking and using as one's own, without proper attribution, the ideas, writings, or work of another person in completing an academic assignment. May also include the unauthorized submission for credit of academic work that has been submitted for credit in another course.

(c) **Fabrication.** Falsifying data, information, or citations in completing an academic assignment. Fabrication also includes providing false or deceptive information to an instructor concerning the completion of an assignment.

(d) **Multiple submissions.** Submitting the same work in separate courses without the express permission of the instructor(s).

(e) **Deliberate damage.** Taking deliberate action to destroy or damage another's academic work or college property in order to gain an advantage for oneself or another.

(3) **Acts of dishonesty.** Acts of dishonesty include, but are not limited to:

(a) Forgery, alteration, submission of falsified documents, or misuse of any college document, record, or instrument of identification;

(b) Tampering with an election conducted by or for college students; or

(c) Furnishing false information, or failing to furnish correct information, in response to the reasonable request or requirement of a college official or employee.

(4) **Alcohol.** Use, possession, manufacture, or distribution of alcoholic beverages or paraphernalia (except as expressly permitted by college policies, and federal, state, and local laws), or public intoxication on college premises or at college-sponsored events. Alcoholic beverages may not, in any circumstance, be used by, possessed by, or distributed to any person not of legal age.

(5) **Cyber misconduct.** Cyberstalking, cyberbullying, or online harassment. Use of electronic communications including, but not limited to, electronic mail, text messaging, social media sites, or applications (apps), to harass, abuse, bully, or engage in other conduct that harms, threatens, or is reason-

ably perceived as threatening the health or safety of another person. Prohibited activities include, but are not limited to, unauthorized monitoring of another's electronic communications or computer activities directly or through spyware, sending threatening emails or texts, disrupting electronic communications with spam or by sending a computer virus, or sending false emails or texts to third parties using another's identity (spoofing).

(6) **Discriminatory harassment.**

(a) Unwelcome and offensive conduct, including verbal, nonverbal, or physical conduct, not otherwise protected by law, that is directed at a person because of such person's protected status and that is sufficiently severe, persistent, or pervasive so as to:

(i) Limit the ability of a student to participate in or benefit from the college's educational and/or social programs and/or student housing;

(ii) Alter the terms of an employee's employment; or

(iii) Create an intimidating, hostile, or offensive environment for other campus community members.

(b) Protected status includes a person's race; color; creed/religion; national origin; presence of any sensory, mental or physical disability; use of a trained service animal; sex, including pregnancy; marital status; age; genetic information; sexual orientation; gender identity or expression; honorably discharged veteran or military status; HIV/AIDS and hepatitis C status; or membership in any other group protected by federal, state, or local law.

(c) Discriminatory harassment may be physical, verbal, or nonverbal conduct and may include written, social media, and electronic communications not otherwise protected by law.

(7) **Disorderly conduct.** Conduct that is disorderly, lewd, or indecent; disturbing the peace; or assisting or encouraging another person to disturb the peace.

(8) **Disruption or obstruction.** Disruption or obstruction of any instruction, research, administration, disciplinary proceeding, or other college activity, including the obstruction of the free flow of pedestrian or vehicular movement on college property or at a college activity, or any activity that is authorized to occur on college property, whether or not actually conducted or sponsored by the college.

(9) **Ethical violation.** The breach of any generally recognized and published code of ethics or standards of professional practice that governs the conduct of a particular profession for which the student is taking a course or is pursuing as an educational goal or major.

(10) **Failure to comply with directive.** Failure to comply with the reasonable direction of a college official or employee who is acting in the legitimate performance of their duties, including failure to properly identify oneself to such a person when requested to do so.

(11) **Harassment or bullying.** Conduct unrelated to a protected class that is unwelcome and sufficiently severe, persistent, or pervasive such that it could reasonably be expected to create an intimidating, hostile, or offensive environment, or has the purpose or effect of unreasonably interfering with a person's academic or work performance, or a person's ability to participate in or benefit from the college's programs, services, opportunities, or activities.

(a) Harassing conduct may include, but is not limited to, physical, verbal, or nonverbal conduct, including written, social media and electronic communications unless otherwise protected by law.

(b) For purposes of this code, "bullying" is defined as repeated or aggressive unwanted behavior not otherwise protected by law when a reasonable person would feel humiliated, harmed, or intimidated.

(c) For purposes of this code, "intimidation" is an implied threat. Intimidation exists when a reasonable person would feel threatened or coerced even though an explicit threat or display of physical force has not been made. Intimidation is evaluated based on the intensity, frequency, or duration of the comments or actions.

(12) **Hazing.** Hazing includes, but is not limited to, any initiation into a student organization or any pastime or amusement engaged in with respect to such an organization that causes, or is likely to cause, bodily danger or physical harm, or serious mental or emotional harm to any student.

(13) **Indecent exposure.** The intentional or knowing exposure of a person's genitals or other private body parts when done in a place or manner in which such exposure is likely to cause affront or alarm. Breastfeeding or expressing breast milk is not indecent exposure.

(14) **Marijuana or other drugs.**

(a) **Marijuana.** The use, possession, growing, delivery, sale, or being visibly under the influence of marijuana or the psychoactive compounds found in marijuana and intended for human consumption, regardless of form, or the possession of marijuana paraphernalia on college premises or college-sponsored events. While state law permits the recreational use of marijuana, federal law prohibits such use on college premises or in connection with college activities.

(b) **Drugs.** The use, possession, production, delivery, sale, or being under the influence of any prescription drug or possession of drug paraphernalia, including anabolic steroids, androgens, or human growth hormones as defined in chapter 69.41 RCW, or any other controlled substance under chapter 69.50 RCW, except as prescribed for a student's use by a licensed practitioner.

(15) **Misuse of electronic resources.** Theft or other misuse of computer time or other electronic information resources of the college. Such misuse includes, but is not limited to:

(a) Unauthorized opening of a file, message, or other item;

(b) Unauthorized duplication, transfer, or distribution of a computer program, file, message, or other item;

(c) Unauthorized use or distribution of someone else's password or other identification;

(d) Use of computer time or resources to interfere with someone else's work;

(e) Use of computer time or resources to send, display, or print an obscene or abusive message, text, or image;

(f) Use of computer time or resources to interfere with normal operation of the college's computing system or other electronic information resources;

(g) Use of computer time or resources in violation of applicable copyright or other law;

(h) Adding to or otherwise altering the infrastructure of the college's electronic information resources without authorization; or

(i) Failure to comply with the college's electronic use policy.

(16) **Property violation.** Damage to, misappropriation of, unauthorized use or possession of, vandalism of, or other nonaccidental damaging or destruction of college property or the property of another person. Property, for purposes of this subsection, also includes computer passwords, access codes, identification cards, personal financial account numbers, other confidential personal information, intellectual property, and college trademarks.

(17) **Relationship violence.** The infliction of physical harm, bodily injury, assault, psychological harm, or the fear of imminent physical harm, bodily injury, or assault committed by:

(a) The impacted party's current or former spouse;

(b) Current or former cohabitant;

(c) A person with whom the person shares a child in common; or

(d) A person who has been in a romantic or intimate relationship with the impacted party. Whether such a relationship exists will be gauged by the length, type, and frequency of interaction.

(18) **Retaliation.** Harming, threatening, intimidating, coercing, or taking adverse action of any kind against a person because such person reported an alleged violation of this code or college policy, provided information about an alleged violation, or participated as a witness or in any other capacity in a college investigation or disciplinary proceeding.

(19) **Safety violations.** Safety violations include committing any reckless or unsafe act that endangers others, failing to follow established safety procedures (e.g., failing to evacuate during a fire alarm), or interfering with or otherwise compromising any college equipment relating to the safety and security of the campus community including, but not limited to, tampering with fire safety or first-aid equipment, or triggering false alarms or other emergency response systems.

(20) **Sexual exploitation.** Taking nonconsensual or abusive sexual advantage of another for the responding party's own advantage or benefit, or to benefit or advantage anyone other than the one being exploited, when the behavior does not otherwise constitute one of the other sexual misconduct offenses described herein. Examples of sexual exploitation may include, but are not limited to:

(a) Invading another person's sexual privacy;

(b) Prostituting another person;

(c) Nonconsensual photography and digital or video recording of nudity or sexual activity, or nonconsensual audio recording of sexual activity;

(d) Unauthorized sharing or distribution of photographs or digital or video recording of nudity or sexual activity, or audio recording of sexual activity, unless otherwise protected by law;

(e) Engaging in voyeurism. A person commits voyeurism if they knowingly view, photograph, record, or film another person, without that person's knowledge and consent, while the person being viewed, photographed, recorded, or

filmed is in a place where the person has a reasonable expectation of privacy;

(f) Knowingly or recklessly exposing another person to a significant risk of sexually transmitted disease or infection; or

(g) Causing the nonconsensual indecent exposure of another person, as defined by subsection (13) of this section.

(21) **Sexual harassment.** Unwelcome sexual- or gender-based conduct, including unwelcome sexual advances, requests for sexual favors, and other verbal, nonverbal, or physical conduct of a sexual- or gender-based nature that is sufficiently severe, persistent or pervasive as to:

(a) Deny or limit the ability of a student to participate in or benefit from the college's educational program;

(b) Alter the terms or conditions of employment; or

(c) Create an intimidating, hostile, or offensive environment for other campus community members.

(22) **Sexual violence.** A type of sexual harassment that includes nonconsensual intercourse, nonconsensual sexual contact, and sexual coercion.

(a) Consent is knowing, voluntary, and clear permission by word or action to engage in mutually agreed upon sexual activity.

(i) Effective consent cannot result from force, or threat of physical force, coercion, dishonesty, or intimidation.

(ii) Physical force means someone is physically exerting control of another person through violence. Physical force includes, but is not limited to, hitting, kicking, and restraining.

(iii) Threatening someone to obtain consent for a sexual act is a violation of this policy. Threats exist where a reasonable person would have been compelled by the words or actions of another to give permission to sexual activity to which they otherwise would not have consented.

(iv) Each party has the responsibility to make certain that the other has consented before engaging in the activity. For consent to be valid, there must be at the time of the act of sexual intercourse or sexual contact actual words or conduct indicating freely given agreement to have sexual intercourse or sexual contact.

(v) A person cannot consent if they are unable to understand what is happening or are disoriented, helpless, asleep, or unconscious for any reason, including due to alcohol or other drugs. An individual who engages in sexual activity when the individual knows, or should know, that the other person is physically or mentally incapacitated has engaged in nonconsensual conduct. Intoxication is not a defense against allegations that an individual has engaged in nonconsensual sexual conduct.

(b) **Nonconsensual sexual intercourse.** Any sexual intercourse (anal, oral, or vaginal), however slight, with any object, by a person upon another person, that is without consent and/or by force. Sexual intercourse includes anal or vaginal penetration by a penis, tongue, finger, or object, or oral copulation by mouth to genital contact or genital to mouth contact.

(c) **Nonconsensual sexual contact.** Any intentional sexual touching, however slight, with any object, by a person upon another person that is without consent and/or by force. Sexual touching includes any bodily contact with the breasts,

groin, mouth, or other bodily orifice of another individual, or any other bodily contact in a sexual manner.

(d) **Sexual coercion.** Unreasonably pressuring another for sexual contact. When an impacted party makes it clear through words or actions that they do not want to engage in sexual contact, want to stop, or do not want to go past a certain point of sexual interaction, continued pressure beyond that point is presumptively unreasonable and coercive. Other examples of coercion may include using blackmail or extortion, or administering drugs and/or alcohol to overcome resistance or gain consent to sexual activity. Sexual contact that is the result of coercion is nonconsensual.

(23) **Stalking.** Intentional and repeated following of another person, which places that person in reasonable fear that the perpetrator intends to injure, intimidate, or harass that person. Stalking also includes instances where the perpetrator knows or reasonably should know that the person is frightened, intimidated, or harassed, even if the perpetrator lacks such an intent.

(24) **Tobacco, electronic cigarettes, and related products.** The use of tobacco, electronic cigarettes, and related products is prohibited in any building owned, leased, or operated by the college or in any location where such use is prohibited, including twenty-five feet from entrances, exits, windows that open, and ventilation intakes of any building owned, leased, or operated by the college. Related products include, but are not limited to, cigarettes, pipes, bidi, clove cigarettes, waterpipes, hookahs, chewing tobacco, and snuff.

(25) **Unauthorized access.** Unauthorized possession, duplication, or other use of a key, keycard, or other restricted means of access to college property, or unauthorized entry onto or into college property. Providing keys to an unauthorized person or providing access to an unauthorized person is also prohibited.

(26) **Unauthorized recording.** The following conduct is prohibited:

(a) Making audio, video, digital recordings, or photographic images of a person without that person's consent in a location where that person has a reasonable expectation of privacy (e.g., restroom or residence hall room).

(b) Storing, sharing, publishing, or otherwise distributing such recordings or images by any means.

(27) **Violation of other laws or policies.** Violation of any federal, state, or local law, rule, or regulation or other college rules or policies, including on-campus housing policies and college traffic and parking rules.

(28) **Weapons.**

(a) Possessing, holding, wearing, transporting, storing, or exhibiting any firearm, dagger, sword, knife or other cutting or stabbing instrument, club, explosive device, or any other weapon apparently capable of producing bodily harm is prohibited on the college campus, subject to the following exceptions:

(i) Commissioned law enforcement personnel; or

(ii) Legally authorized military personnel while in performance of their official duties.

(b) Students with legally issued concealed weapons permits may store their weapons in vehicles parked in accordance with RCW 9.41.050 on campus provided the vehicle is locked and the weapon is concealed from view.

(c) The president or delegate may authorize possession of a weapon on campus upon a showing that the weapon is reasonably related to a legitimate pedagogical purpose. Such permission shall be in writing and shall be subject to any terms or conditions incorporated therein.

(d) Possession and/or use of disabling chemical sprays for purposes of self-defense is not prohibited.

#### NEW SECTION

**WAC 132H-126-110 Disciplinary sanctions—Terms and conditions.** (1) The following disciplinary sanctions may be imposed upon students found to have violated the student conduct code:

(a) **Disciplinary warning.** A verbal statement to a student that they are violating or have violated the student conduct code and that continuation of the same or similar behavior may result in more severe discipline.

(b) **Written reprimand.** Notice in writing that the student has violated one or more terms of the student conduct code and that continuation of the same or similar behavior may result in more severe disciplinary action.

(c) **Disciplinary probation.** Formal action placing specific conditions and restrictions upon the student's continued attendance, depending upon the seriousness of the violation, which may include a deferred disciplinary sanction.

(i) Probation may be for a limited period of time or may be for the duration of the student's attendance at the college.

(ii) If the student subject to a deferred disciplinary sanction is found in violation of any college rule during the time of disciplinary probation, the deferred disciplinary sanction, which may include, but is not limited to, a suspension or a dismissal from the college, shall take effect immediately without further review. Any such sanction shall be in addition to any sanction or conditions arising from the new violation.

(d) **Disciplinary suspension.** Separation from the college and from the student status for a stated period of time.

(i) There will be no refund of tuition or fees for the quarter in which the action is taken.

(ii) Conditions of suspension may be imposed and will be specified. Except as otherwise specified in the final order, all conditions must be fulfilled before the end of the suspension period. Failure to fulfill all conditions of suspension in a timely manner will extend the suspension period and any conditions, and may result in additional disciplinary sanctions.

(iii) The college may put a conduct hold in place during the suspension period.

(e) **Dismissal.** The revocation of all rights and privileges of membership in the college community and exclusion from the campus and college-owned or college-controlled facilities without any possibility of return. There will be no refund of tuition or fees for the quarter in which the action is taken.

(2) Disciplinary terms and conditions that may be imposed in conjunction with the imposition of a disciplinary sanction include, but are not limited to, the following:

(a) **Education.** Participation in or successful completion of an educational assignment designed to create an awareness of the student's misconduct.

(b) **Loss of privileges.** Denial of specified privileges for a designated period of time.

(c) **No contact order.** A prohibition of direct or indirect physical, verbal, electronic, and/or written contact with another individual or group.

(d) **Not in good standing.** A student found to be "not in good standing" with the college shall be subject to the following restrictions:

(i) Ineligible to hold an office in any student organization recognized by the college or to hold any elected or appointed office of the college.

(ii) Ineligible to represent the college to anyone outside the college community in any way, including representing the college at any official function, or any forms of intercollegiate competition or representation.

(e) **Professional evaluation.** Referral for drug, alcohol, psychological, or medical evaluation by an appropriately certified or licensed professional.

(i) The student may choose the professional within the scope of practice and with the professional credentials as defined by the college.

(ii) The student will sign all necessary releases to allow the college access to any such evaluation.

(iii) The student's return to college may be conditioned upon compliance with recommendations set forth in such a professional evaluation. If the evaluation indicates that the student is not capable of functioning within the college community, the student will remain suspended until future evaluation recommends that the student is capable of reentering the college and complying with the rules of conduct.

(f) **Residence hall suspension.** Separation of the student from a residence hall or halls for a definite period of time, after which the student may be eligible to return. Conditions for reacceptance may be specified.

(g) **Residence hall dismissal.** Permanent separation of the student from a residence hall or halls.

(h) **Restitution.** Reimbursement for damage to or misappropriation of property, or for injury to persons, or for reasonable costs incurred by the college in pursuing an investigation or disciplinary proceeding. This may take the form of monetary reimbursement, appropriate service, or other compensation.

(i) **Trespass or restriction.** A student may be restricted from any or all college premises and/or college-sponsored activities based on the violation.

(3) More than one of the disciplinary terms and conditions listed above may be imposed for any single violation.

(4) If a student withdraws from the college or fails to reenroll before completing a disciplinary sanction or condition, the disciplinary sanction or condition must be completed either prior to or upon the student's reenrollment, depending on the nature of the sanction, condition, and/or the underlying violation. Completion of disciplinary sanctions and conditions may be considered in petitions for readmission to the college.

#### NEW SECTION

**WAC 132H-126-120 Initiation of disciplinary action.**

(1) Any member of the college community may file a com-

plaint against a student for possible violations of the student conduct code.

(2) Upon receipt, a student conduct officer, or designee, may review and investigate any complaint to determine whether it appears to state a violation of the student conduct code.

(a) **Student on student sexual misconduct.** The college's Title IX coordinator or designee shall investigate complaints or other reports of alleged sexual misconduct by a student against a student.

(b) **Sexual misconduct involving an employee.** The college's human resource office or designee shall investigate complaints or other reports of sexual misconduct in which an employee is either the impacted or responding party.

(c) Investigations will be completed in a timely manner and the results of the investigation shall be referred to the student conduct officer for student disciplinary action.

(d) College personnel will honor requests to keep sexual misconduct complaints confidential to the extent this can be done in compliance with federal and state laws and without unreasonably risking the health, safety, and welfare of the impacted party or other members of the college community.

(3) If a student conduct officer determines that a complaint appears to state a violation of the student conduct code, the student conduct officer will consider whether the matter might be resolved through agreement with the responding party or through alternative dispute resolution proceedings involving the impacted party and the reporting party.

(a) Informal dispute resolution shall not be used to resolve sexual misconduct complaints without written permission from both the impacted party and the responding party.

(b) If the parties elect to mediate a dispute, either party shall be free to discontinue mediation at any time.

(4) If the student conduct officer has determined that a complaint has merit and if the matter is not resolved through agreement or alternative dispute resolution, the student conduct officer may initiate disciplinary action against the responding party.

(a) Both the responding party and the impacted party in cases involving allegations of sexual misconduct shall be provided the same procedural rights to participate in student discipline matters, including the right to participate in the initial disciplinary decision-making process and to appeal any disciplinary decision.

(b) The student conduct officer, prior to initiating disciplinary action in cases involving allegations of sexual misconduct, will make a reasonable effort to contact the impacted party to discuss the results of the investigation and possible disciplinary sanctions and/or conditions, if any, that may be imposed upon the responding party if the allegations of sexual misconduct are found to have merit.

(5) All disciplinary actions will be initiated by a student conduct officer. If that officer is the subject of a complaint initiated by the responding party or the impacted party, the president shall, upon request and when feasible, designate another person to fulfill any such disciplinary responsibilities.

(6) A student conduct officer shall initiate disciplinary action by serving the responding party with written notice directing them to attend a disciplinary meeting.

(a) The notice shall briefly describe the factual allegations, the provision(s) of the student conduct code the responding party is alleged to have violated, the range of possible sanctions for the alleged violation(s), and it will specify the time and location of the meeting.

(b) At the disciplinary meeting, the student conduct officer will present the allegations to the responding party, and the responding party shall be afforded an opportunity to explain what occurred.

(c) If the responding party fails to attend the meeting, the student conduct officer may take disciplinary action based upon the available information.

(7) Within ten days of the initial disciplinary meeting and after considering the evidence in the case, including any facts or argument presented by the responding party, the student conduct officer shall serve the responding party with a written decision setting forth the facts and conclusions supporting the decision, the specific student conduct code provisions found to have been violated, the discipline imposed, if any, and a notice of any appeal rights with an explanation of the consequences of failing to file a timely appeal. This period may be extended if the student conduct officer, based on information presented at the disciplinary meeting, concludes that additional investigation is necessary. If the period is extended, the student conduct officer will notify the responding party, and the impacted party in cases involving allegations of sexual misconduct, of this extension, the reason(s), and the anticipated extension time frame.

(8) A student conduct officer may take any of the following disciplinary actions:

(a) Exonerate the responding party and terminate the proceedings.

(b) Impose a disciplinary sanction(s), with or without condition(s), as described in WAC 132H-126-110.

(c) Refer the matter directly to the student conduct committee for such disciplinary action as the committee deems appropriate. Such referral shall be in writing, to the attention of the chair of the student conduct committee, with a copy served on the responding party.

(9) In cases involving allegations of sexual misconduct, the student conduct officer, on the same date that a disciplinary decision is served on the responding party, will serve a written notice informing the impacted party of the decision, the reasons for the decision, and any disciplinary sanctions and/or conditions that may have been imposed upon the responding party, including disciplinary suspension or dismissal of the responding party. The notice will also inform the impacted party of their appeal rights. If protective sanctions and/or conditions are imposed, the student conduct officer shall make a reasonable effort to contact the impacted party to ensure prompt notice of the protective disciplinary sanctions and/or conditions.

#### NEW SECTION

**WAC 132H-126-130 Appeal from disciplinary action.** (1) The responding party may appeal a disciplinary

action by filing a written notice of appeal with the conduct review officer within twenty-one days of service of the student conduct officer's decision. Failure to timely file a notice of appeal constitutes a waiver of the right to appeal and the student conduct officer's decision shall be deemed final.

(2) The notice of appeal must include a brief statement explaining why the responding party is seeking review.

(3) The parties to an appeal shall be the responding party and the student conduct officer. If a case involves allegations of sexual misconduct, an impacted party also has a right to appeal a disciplinary decision or to intervene in the responding party's appeal of a disciplinary decision to the extent the disciplinary decision, sanctions or conditions relate to allegations of sexual misconduct against the responding party.

(4) A responding party, who timely appeals a disciplinary action or whose case is referred to the student conduct committee, has a right to a prompt, fair, and impartial hearing as provided for in these procedures.

(5) On appeal, the college bears the burden of establishing the evidentiary facts underlying the imposition of a disciplinary sanction by a preponderance of the evidence.

(6) Imposition of disciplinary action for violation of the student conduct code shall be stayed pending appeal, unless the responding party has been summarily suspended.

(7) The student conduct committee shall hear appeals regarding:

(a) The imposition of disciplinary suspensions in excess of ten instructional days;

(b) Dismissals; and

(c) Discipline cases referred to the committee by the student conduct officer, the conduct review officer, or the president.

(8) Student conduct appeals from the imposition of the following disciplinary sanctions shall be reviewed through a brief adjudicative proceeding:

(a) Residence hall dismissals;

(b) Residence hall suspensions;

(c) Suspensions of ten instructional days or less;

(d) Disciplinary probation;

(e) Written reprimands;

(f) Any conditions or terms imposed in conjunction with one of the foregoing disciplinary actions; and

(g) Appeals by an impacted party in student disciplinary proceedings involving allegations of sexual misconduct in which the student conduct officer:

(i) Dismisses disciplinary proceedings based upon a finding that the allegations of sexual misconduct have no merit; or

(ii) Issues a verbal warning to the responding party.

(9) Except as provided elsewhere in these rules, disciplinary warnings and dismissals of disciplinary complaints are final actions and are not subject to appeal.

(10) In cases involving allegations of sexual misconduct, the impacted party has the right to appeal the following actions by the student conduct officer following the same procedures as set forth above for the responding party:

(a) The dismissal of a sexual misconduct complaint; or

(b) Any disciplinary sanction(s) and conditions imposed against a responding party for a sexual misconduct violation, including a disciplinary warning.

(11) If the responding party timely appeals a decision imposing discipline for a sexual misconduct violation, the college shall notify the impacted party of the appeal and provide the impacted party an opportunity to intervene as a party to the appeal.

(12) Except as otherwise specified in this chapter, an impacted party who timely appeals a disciplinary decision or who intervenes as a party to responding party's appeal of a disciplinary decision shall be afforded the same procedural rights as are afforded the responding party.

#### NEW SECTION

**WAC 132H-126-140 Conduct hold on student records.** (1) A student conduct officer or other designated college official may place a conduct hold on the student's record if the student is the responding party in a pending complaint of prohibited conduct, a pending conduct proceeding under this code, or in conjunction with a disciplinary sanction or condition under this code.

(2) A conduct hold may restrict the student from registering for classes, requesting an official transcript, or receiving a degree from the college until the hold has been removed.

(3) If the conduct hold is placed pending or during a conduct proceeding, the student will be notified of the hold and be advised how to raise an objection about the hold or request that it be made less restrictive. The hold will remain in place until lifted by the student conduct officer or other designated college official with authority to do so.

(4) Implementation of any conduct hold prior to disciplinary action does not assume any determination of, or create any expectation of, responsibility for prohibited conduct under this conduct code.

#### NEW SECTION

**WAC 132H-126-150 Amnesty policy.** (1) Bellevue College values the health, safety and wellness of those in our college community. Students are encouraged to report crimes, share concerns, and seek medical attention for themselves or others in need.

(2) A student conduct officer may elect not to initiate disciplinary action against a student who, while in the course of helping another person seek medical or other emergency assistance, admits to a possible policy violation under this student conduct code, provided that any such violations did not and do not place the health or safety of any other person at risk.

(3) A student conduct officer may elect not to initiate disciplinary action against a student who, while in the course of reporting violence, sexual misconduct, or a crime in progress, admits to personal consumption of alcohol or drugs at or near the time of the incident, provided that any such use did not place the health or safety of any other person at risk.

(4) While policy violations cannot be overlooked, the college may elect to offer educational options or referrals, rather than initiating disciplinary action against students who report crimes, serve as witnesses, or seek medical attention as described in this section.

(5) This amnesty policy may not apply to students who repeatedly violate college policies in regards to alcohol, drugs, or other prohibited conduct.

#### NEW SECTION

**WAC 132H-126-160 Interim measures.** (1) After receiving a report of alleged sexual misconduct or other serious student misconduct, a student conduct officer or designee may implement interim measures which may include, but are not limited to:

- (a) A no-contact order prohibiting direct or indirect contact, by any means, with an impacted party, a responding party, a reporting party, other specified persons, and/or a specific student organization;
- (b) Reassignment of on-campus housing;
- (c) Changes to class schedules, assignments, or test schedules;
- (d) Modified on-campus employment schedule or location;
- (e) Restrictions on access to portions of campus including, but not limited to, on-campus housing; or
- (f) Alternative safety arrangements such as campus safety escorts.

(2) If an interim measure is put in place pending or during a conduct proceeding, the student will be notified of the interim measure and be advised how to raise an objection about the interim measure or request that it be made less restrictive. The student conduct officer may adjust or modify interim measures as students' situations and schedules change and evolve over time. Interim measures will remain in place until the student receives notice they have been lifted or modified from the student conduct officer.

(3) Implementation of any interim measure does not assume any determination of, or create any presumption regarding responsibility for, a violation under this student conduct code.

#### NEW SECTION

**WAC 132H-126-170 Summary suspension.** (1) Summary suspension is a temporary exclusion from specified college premises or denial of access to all activities or privileges for which a responding party might otherwise be eligible, while an investigation and/or formal disciplinary procedures are pending.

(2) The student conduct officer may impose a summary suspension if there is reasonable basis to believe that the responding party:

- (a) Has violated a provision of the student conduct code; and
- (b) Presents an immediate danger to the health, safety, or welfare of members of the college community; or
- (c) Poses an ongoing threat of substantial disruption of, or interference with, the operations of the college.

(3) Notice. Any responding party who has been summarily suspended shall be served with oral or written notice of the summary suspension. If oral notice is given, a written notification shall be served on the responding party within two business days of the oral notice.

(4) The written notice shall be entitled "Notice of Summary Suspension" and shall include:

(a) The reasons for imposing the summary suspension, including a description of the conduct giving rise to the summary suspension and reference to the provisions of the student conduct code or the law allegedly violated;

(b) The date, time, and location when the responding party must appear before the conduct review officer for a hearing on the summary suspension; and

(c) The conditions, if any, under which the responding party may physically access the campus or communicate with members of the campus community. If the responding party has been trespassed from the campus, a notice against trespass shall be included that warns the student that their privilege to enter or remain on college premises has been withdrawn and that the responding party shall be considered to be trespassing and subject to arrest for criminal trespass if the responding party enters the college campus. The responding student may be authorized to access college premises for the limited purpose of meeting with the student conduct officer, the conduct review officer, or to attend a disciplinary hearing. All such meetings and hearings shall be confirmed in writing in advance and the responding party entering college premises shall be required to produce the written permission to a college official on request.

(5) The conduct review officer shall conduct a hearing on the summary suspension as soon as practicable after imposition of the summary suspension.

(a) During the summary suspension hearing, the issue before the conduct review officer is whether there is probable cause to believe that the summary suspension should be continued pending the conclusion of disciplinary proceedings and/or whether the summary suspension should be less restrictive in scope.

(b) The responding party shall be afforded an opportunity to explain why the summary suspension should not be continued while disciplinary proceedings are pending or why the summary suspension should be less restrictive in scope.

(c) If the responding party fails to appear at the designated hearing time, the conduct review officer may order that the summary suspension remain in place pending the conclusion of the disciplinary proceedings.

(d) As soon as practicable following the hearing, the conduct review officer shall issue a written decision which shall include a brief explanation for any decision continuing and/or modifying the summary suspension and notice of any right to appeal.

(e) To the extent permissible under applicable law, the conduct review officer shall provide a copy of the decision to all persons or offices who may be bound or protected by it.

(6) In cases involving allegations of sexual misconduct, the impacted party shall be notified that a summary suspension has been imposed on the same day that the summary suspension notice is served on the responding party. The college will also provide the impacted party with timely notice of any subsequent changes to the summary suspension order.

NEW SECTION

**WAC 132H-126-180 Records.** (1) Student conduct code records are maintained in accordance with the college's records retention schedule.

(2) The disciplinary record is confidential, and is released only as authorized under the Family Educational Rights and Privacy Act (FERPA) (20 U.S.C. Sec. 1232g; 34 C.F.R. Part 99).

NEW SECTION

**WAC 132H-126-200 Brief adjudicative proceedings—Initial hearing.** (1) Brief adjudicative proceedings shall be conducted by a conduct review officer designated by the president. The conduct review officer shall not participate in any case in which they are an impacted party or witness, or in which they have direct or personal interest, prejudice, or bias, or in which they have acted previously in an advisory capacity.

(2) Before taking action, the conduct review officer shall conduct an informal hearing and provide each party:

(a) An opportunity to be informed of the agency's view of the matter; and

(b) An opportunity to explain the party's view of the matter.

(3) The conduct review officer shall serve an initial decision upon the parties within ten business days of consideration of the appeal. The initial decision shall contain a brief written statement of the reasons for the decision and information about how to seek administrative review of the initial decision. If no request for review is filed within twenty-one days of service of the initial decision, the initial decision shall be deemed the final decision.

(4) If the matter is an appeal by the responding party, or the impacted party in the case of sexual misconduct, the conduct review officer may affirm, reverse, or modify the disciplinary sanctions and/or conditions imposed by the student conduct officer and/or impose additional disciplinary sanctions or conditions as authorized herein. If the conduct review officer, upon review, determines that the respondent's conduct may warrant imposition of a disciplinary suspension of more than ten instructional days or expulsion, the matter shall be referred to the student conduct committee for a disciplinary hearing.

(5) In cases involving allegations of sexual misconduct, the conduct review officer, on the same date as the initial decision is served on the responding party, will serve a written notice upon the impacted party of the decision, the reasons for the decision, and a description of any disciplinary sanctions and/or conditions that may have been imposed upon the responding party. The notice will also inform the impacted party of their appeal rights.

NEW SECTION

**WAC 132H-126-210 Brief adjudicative proceedings—Review of an initial decision.** (1) An initial decision is subject to review by the president, provided the responding party files a written request for review with the conduct

review officer within twenty-one days of service of the initial decision.

(2) The president shall not participate in any case in which they are an impacted party or witness, or in which they have direct or personal interest, prejudice, or bias, or in which they have acted previously in an advisory capacity.

(3) During the review, the president shall give each party an opportunity to file written responses explaining their view of the matter and shall make any inquiries necessary to determine whether the findings or sanctions should be modified or whether the proceedings should be referred to the student conduct committee for a formal adjudicative hearing.

(4) The decision on review must be in writing, include a brief statement of the reasons for the decision and typically must be served on the parties within twenty days of the request for review. The decision on review will contain a notice that judicial review may be available. A request for review may be deemed to have been denied if the president does not make a disposition of the matter within twenty days after the request is submitted without a response from the president.

(5) If the president, upon review, determines that the respondent's conduct may warrant imposition of a disciplinary suspension of more than ten instructional days or dismissal, the matter shall be referred to the student conduct committee for a disciplinary hearing.

(6) In cases involving allegations of sexual misconduct, the president, on the same date as the final decision is served on the responding party, will serve a written notice upon the impacted party informing the impacted party of the decision, the reasons for the decision, and a description of any disciplinary sanctions and/or conditions that may have been imposed upon the responding party. The notice will also inform the impacted party of their appeal rights.

NEW SECTION

**WAC 132H-126-300 Student conduct committee.** (1) The student conduct committee shall consist of six members:

(a) Two full-time students appointed by the student government;

(b) Two faculty members appointed by the president;

(c) Two administrative staff members, other than an administrator serving as a student conduct or conduct review officer, appointed by the president prior to the beginning of the academic year for alternating two-year terms.

(2) One of the administrative staff members shall serve as the chair of the committee and may take action on preliminary hearing matters prior to convening the committee. The administrative staff members shall receive annual training on protecting victims and promoting accountability in cases involving allegations of sexual misconduct.

(3) Hearings may be heard by a quorum of three members of the committee, so long as one faculty member, one student, and one administrative staff member are included on the hearing panel. Committee action may be taken upon a majority vote of all committee members attending the hearing.

(4) Members of the student conduct committee shall not participate in any case in which they:

- (a) Are an impacted party or witness;
- (b) Have direct or personal interest, prejudice, or bias; or
- (c) Have acted previously in an advisory capacity.

(5) Any party may petition for disqualification of a committee member pursuant to RCW 34.05.425(4).

#### NEW SECTION

**WAC 132H-126-310 Student conduct committee—Prehearing.** (1) Proceedings of the student conduct committee shall be governed by the Administrative Procedure Act, chapter 34.05 RCW, and by the Model Rules of Procedure, chapter 10-08 WAC. To the extent there is a conflict between these rules and chapter 10-08 WAC, these rules shall control.

(2) The student conduct committee chair shall serve all parties with written notice of the hearing not less than seven days in advance of the hearing date, as further specified in RCW 34.05.434 and WAC 10-08-040 and 10-08-045. The chair may shorten this notice period if both parties agree, and also may continue the hearing to a later time for good cause shown.

(3) The committee chair is authorized to conduct prehearing conferences and/or to make prehearing decisions concerning the extent and form of any discovery, issuance of protective decisions, and similar procedural matters.

(4) Upon request, filed at least five days before the hearing by any party or at the direction of the committee chair, the parties shall exchange, no later than the third day prior to the hearing, lists of potential witnesses and copies of potential exhibits that they reasonably expect to present to the committee. Failure to participate in good faith in such a requested exchange may be cause for exclusion from the hearing of any witness or exhibit not disclosed, absent a showing of good cause for such failure.

(5) The committee chair may provide to the committee members in advance of the hearing copies of: (a) The conduct officer's notice of discipline, or referral to the committee; and (b) the notice of appeal, or any response to referral, by the responding party or, in a case involving allegations of sexual misconduct, the impacted party. If doing so, however, the chair should remind the members that these "pleadings" are not evidence of any facts they may allege.

(6) The parties may agree before the hearing to designate specific exhibits as admissible without objection and, if they do so, whether the committee chair may provide copies of these admissible exhibits to the committee members before the hearing.

(7) The student conduct officer, upon request, shall provide reasonable assistance to the responding party and impacted party in obtaining relevant and admissible evidence that is within the college's control.

(8) Communications between committee members and other hearing participants regarding any issue in the proceeding, other than procedural communications necessary to maintain an orderly process, are generally prohibited without notice and opportunity for all parties to participate. Any improper "ex parte" communication shall be placed on the record, as further provided in RCW 34.05.455.

(9) All parties may be accompanied at the hearing by a nonattorney process advisor of their choice.

(10) The responding party, in all appeals before the committee, and the impacted party, in an appeal involving allegations of sexual misconduct before the committee, may elect to be represented by an attorney at their own expense. The responding and/or impacted party will be deemed to have waived the right to be represented by an attorney unless, at least four business days before the hearing, written notice of the attorney's identity and participation is filed with the committee chair with a copy to the student conduct officer.

(11) The committee will ordinarily be advised by an assistant attorney general. If the responding party and/or the impacted party is represented by an attorney, the student conduct officer may also be represented by a second, appropriately screened, assistant attorney general.

#### NEW SECTION

**WAC 132H-126-320 Student conduct committee—Presentation of evidence.** (1) Upon the failure of any party to attend or participate in a hearing, the student conduct committee may either:

(a) Proceed with the hearing and issuance of its decision; or

(b) Serve a decision of default in accordance with RCW 34.05.440.

(2) The hearing will ordinarily be closed to the public. However, if all parties agree on the record that some or all of the proceedings be open, the chair shall determine any extent to which the hearing will be open. If any person disrupts the proceedings, the chair may exclude that person from the hearing room.

(3) The chair shall cause the hearing to be recorded by a method that they select, in accordance with RCW 34.05.449. That recording, or a copy, shall be made available to any party upon request. The chair shall assure maintenance of the record of the proceeding that is required by RCW 34.05.476, which shall also be available upon request for inspection and copying by any party. Other recording shall also be permitted, in accordance with WAC 10-08-190.

(4) The chair shall preside at the hearing and decide procedural questions that arise during the hearing, except as overridden by majority vote of the committee.

(5) The student conduct officer, unless represented by an assistant attorney general, shall present the case for imposing disciplinary sanctions.

(6) All testimony shall be given under oath or affirmation. Evidence shall be admitted or excluded in accordance with RCW 34.05.452.

(7) In cases involving allegations of sexual misconduct, the responding and the impacted parties shall not directly question or cross-examine one another. Attorneys for the responding and impacted parties are also prohibited from directly questioning opposing parties absent express permission from the committee chair. Subject to this exception, all cross-examination questions by the responding and impacted parties shall be directed to the committee chair, who in their discretion shall pose the questions on the party's behalf. All cross-examination questions submitted to the chair in this

manner shall be memorialized in writing and maintained as part of the hearing record.

#### NEW SECTION

##### **WAC 132H-126-330 Student conduct committee—**

**Initial decision.** (1) At the conclusion of the hearing, the student conduct committee shall permit the parties to make closing arguments in whatever form it wishes to receive them. The committee also may permit each party to propose findings, conclusions, and/or a proposed decision for its consideration.

(2) Within twenty days following the conclusion of the hearing or the committee's receipt of closing arguments, whichever is later, the committee shall issue an initial decision in accordance with RCW 34.05.461 and WAC 10-08-210. The initial decision shall include findings on all material issues of fact and conclusions on all material issues of law, including which, if any, provisions of the student conduct code were violated. Any findings based substantially on the credibility of evidence or the demeanor of witnesses shall be so identified.

(3) The committee's initial order shall also include a determination on appropriate discipline, if any. If the matter was referred to the committee by the student conduct officer, the committee shall identify and impose disciplinary sanctions or conditions, if any, as authorized in the student conduct code. If the matter is an appeal by the responding party or the impacted party in the case of sexual misconduct, the committee may affirm, reverse, or modify the disciplinary sanctions and/or conditions imposed by the student conduct officer and/or impose additional disciplinary sanctions or conditions as authorized herein. The notice will also inform the responding party of their appeal rights.

(4) The committee chair shall cause copies of the initial decision to be served on the parties and their legal counsel of record. The committee chair shall also promptly transmit a copy of the decision and the record of the committee's proceedings to the president.

(5) In cases involving allegations of sexual misconduct, the chair of the student conduct committee will make arrangements to have a written notice served on the impacted party informing the impacted party of the decision, the reasons for the decision, and a description of any disciplinary sanctions and/or conditions that may have been imposed upon the responding party, including suspension or dismissal of the responding party. The notice will also inform the impacted party of their appeal rights. This notice shall be served on the impacted party on the same date as the initial decision is served on the responding party. The impacted party may appeal the student conduct committee's initial decision to the president subject to the same procedures and deadlines applicable to other parties.

#### NEW SECTION

##### **WAC 132H-126-340 Student conduct committee—**

**Review of an initial decision.** (1) A responding party, or an impacted party in a case involving allegations of sexual misconduct, who is aggrieved by the findings or conclusions issued by the student conduct committee may request a

review of the committee's initial decision to the president by filing a notice of appeal with the president's office within twenty-one days of service of the committee's initial decision or a written notice. Failure to file a timely appeal request within this time frame constitutes a waiver of the right and the initial decision shall be deemed final.

(2) The notice of appeal must identify the specific findings of fact and/or conclusions of law in the initial decision that are challenged and must contain an argument as to why the appeal should be granted. The president's review shall be restricted to the hearing record made before the student conduct committee and will normally be limited to those issues and arguments raised in the notice of appeal. As part of the review process, the president may ask the nonappealing party(ies) to respond to the arguments contained in the notice of appeal.

(3) The president shall provide a written decision to all parties within thirty days after receipt of the notice of appeal or receipt of the response from nonappealing parties, whichever is later. The president's decision shall be final and shall include a notice of any rights to request reconsideration and/or judicial review.

(4) In cases involving allegations of sexual misconduct, the president, on the same date that the final decision is served upon the responding party, shall serve a written notice informing the impacted party of the final decision. This notice shall inform the impacted party whether the sexual misconduct allegation was found to have merit and describe any disciplinary sanctions and/or conditions imposed upon the responding party for the impacted party's protection, including suspension or dismissal of the responding party.

(5) The president shall not engage in an ex parte communication with any of the parties regarding an appeal.

#### REPEALER

The following chapter of the Washington Administrative Code is repealed:

WAC 132H-125-010	Authority.
WAC 132H-125-020	Statement of student rights.
WAC 132H-125-030	Prohibited student conduct.
WAC 132H-125-040	Disciplinary sanctions—Terms and conditions.
WAC 132H-125-200	Statement of jurisdiction.
WAC 132H-125-210	Definitions.
WAC 132H-125-220	Initiation of disciplinary action.
WAC 132H-125-230	Appeal from disciplinary action.
WAC 132H-125-240	Brief adjudicative proceedings—Initial hearing.
WAC 132H-125-250	Brief adjudicative proceedings—Review of an initial decision.
WAC 132H-125-260	Student conduct committee.
WAC 132H-125-270	Appeal—Student conduct committee.

WAC 132H-125-280	Student conduct committee hearings—Presentations of evidence.
WAC 132H-125-290	Student conduct committee—Initial decision.
WAC 132H-125-300	Appeal from student conduct committee initial decision.
WAC 132H-125-310	Summary suspension.
WAC 132H-125-320	Discipline procedures for cases involving allegations of sexual misconduct.
WAC 132H-125-330	Supplemental definitions.
WAC 132H-125-340	Supplemental complaint process.
WAC 132H-125-350	Supplemental appeal rights.

**WSR 19-01-085****PERMANENT RULES****BIG BEND****COMMUNITY COLLEGE**

[Filed December 18, 2018, 8:12 a.m., effective January 18, 2019]

Effective Date of Rule: Thirty-one days after filing.

Purpose: Update procedures.

Citation of Rules Affected by this Order: Amending WAC 132R-136-080 Posting of materials.

Statutory Authority for Adoption: RCW 28B.50.140.

Adopted under notice filed as WSR 18-22-052 on October 31, 2018.

Number of Sections Adopted in Order to Comply with Federal Statute: New 0, Amended 0, Repealed 0; Federal Rules or Standards: New 0, Amended 0, Repealed 0; or Recently Enacted State Statutes: New 0, Amended 0, Repealed 0.

Number of Sections Adopted at the Request of a Non-governmental Entity: New 0, Amended 0, Repealed 0.

Number of Sections Adopted on the Agency's own Initiative: New 0, Amended 1, Repealed 0.

Number of Sections Adopted in Order to Clarify, Streamline, or Reform Agency Procedures: New 0, Amended 0, Repealed 0.

Number of Sections Adopted using Negotiated Rule Making: New 0, Amended 0, Repealed 0; Pilot Rule Making: New 0, Amended 0, Repealed 0; or Other Alternative Rule Making: New 0, Amended 0, Repealed 0.

Date Adopted: December 18, 2018.

Melinda Dourte  
Executive Assistant  
to the President

AMENDATORY SECTION (Amending WSR 03-15-063, filed 7/14/03, effective 8/14/03)

**WAC 132R-136-080 Posting of materials.** The college encourages free expression. Use of college facilities as provided herein, however, does not accord users the opportunity

to post commercial solicitations, advertising or promotional materials without permission.

Permission for the posting of materials and literature on college property is not required in designated public posting areas on campus. The college has designated one bulletin board that is accessible during business hours to all employees and students, upon which any person who is lawfully on campus may post materials without prior approval. The location of this board is outside of the inside entrance to the campus bookstore and is labeled "Community Bulletin Board". Permission for the posting of materials or literature in the various restricted areas ((provided, therefore,)) shall be obtained from the ((vice president of student services or his/her designee)) office of communications. Permission to post materials or literature does not accord users immunity from legal action ((which)) that may occur from posting said material. Permission will be granted for a limited time period and the materials must be removed at the end of the approved period. It is understood that the office of communications shall not approve or disapprove of the content of the material.

~~((ASB campaign rules govern special poster and sign locations for ASB elections. Information on these special policies, restricted areas and regulations is available in the office of student programs.))~~

Posting of posters, signs and other publicity or promotional materials is permitted only in ~~((locations))~~ ((above)) locations. All materials sought to be posted in restricted posting areas must have the identity of its sponsorship appearing on its face and be stamped in approval from the office of communications. Any materials not carrying this stamp, will be removed.

**WSR 19-01-094****PERMANENT RULES****DEPARTMENT OF****LABOR AND INDUSTRIES**

[Filed December 18, 2018, 9:59 a.m., effective January 18, 2019]

Effective Date of Rule: Thirty-one days after filing.

Purpose: **eRules Phase 9: Chapter 296-62 WAC, General occupational health standards.** The purpose of adopting this rule making is to have a consistent format across all department of occupational safety and health (DOSH) rules. The updated format would provide easy access to rules from smart phones and tablet users. It will also provide easy navigation in PDF documents, as well as easier referencing by replacing bullets and dashes with numbers and letters. No rule requirements were changed as a result of this rule-making adoption. References, formatting and minor housekeeping changes were made throughout the chapter in this rule making. See below for a list of changes being adopted as proposed:

**WAC 296-62-020 through WAC 296-62-50010.**

- Changed bullets to letters or numbers where applicable.
- Changed "shall" to "must" where applicable.
- Changed "shall be required to" to "must" where applicable.

- Changed "shall assure" to "must ensure" where applicable.
- Changed "assure" to "ensure" where applicable.
- Removed numbers and quotation marks from all defined words.
- Removed words/phrases such as "means," "as defined" or "is an" from all applicable definitions and replace[d] it with a period, making all definitions complete sentences.
- Changed "his" or "her" to any variation of "their," "them" or "they" where applicable.

**WAC 296-62-020 Definitions applicable to all sections of this chapter.**

- Updated outdated reference in definition of "Coal tar pitch volatiles" from WAC 296-62-07515 Table I to WAC 296-841-20025 Table 3.

**WAC 296-62-07306 Requirements for areas containing carcinogens listed in WAC 296-62-07302.**

- Changed reference in subsection (2)(c) from WAC 296-62-07304(12) to 296-62-07304.
- Removed outdated reference in subsections (2)(f)(vii) (B) and (2)(f)(viii)(B); in WAC 296-62-07310 there is no longer a subsection (4) after previous rule making and therefore that reference needs to be taken out.

**WAC 296-62-07310 Signs, information and training.**

- Updated language in subsection (1)(a) to read: "The employer must post signs at entrances to regulated areas. The signs must bear the legend:"
- Removed subsections (1)(c) and (d), and their outdated language referring to June 1, 2016, that is no longer relevant. Relettered the rest of the subsection.

**WAC 296-62-07312 Reports.**

- Updated outdated reference under the "Carcinogens Standard Report" table from WAC 296-62-07308 to 296-62-07304.

**WAC 296-62-07316 Premixed solutions.**

- Removed outdated reference in subsection (1)(c); in WAC 296-62-07310 there is no longer a subsection (4) after previous rule making and therefore that reference needs to be taken out.

**WAC 296-62-07329 Vinyl chloride.**

- Removed subsections (12)(c) and (d) and their outdated language referring to June 1, 2016, that is no longer relevant.
- Removed subsections (13)(b), (c), (d)(i) and (ii) and their outdated language referring to June 1, 2015, that is no longer relevant. Relettered the rest of the subsection.

**WAC 296-62-07336 Acrylonitrile.**

- Removed subsection (16)(b)(iii) and its outdated language referring to June 1, 2016, that is no longer relevant.
- Removed outdated language referring to June 1, 2015, from subsection (16)(c)(ii) that is no longer relevant. Renumbered the subsection.

**WAC 296-62-07338 Appendix B—Substance technical guidelines for acrylonitrile.**

- Updated outdated reference in subsection (2)(a)(viii) from WAC 296-24-59207 to 296-800-300.
- Updated outdated reference in subsection (2)(a)(ix) from WAC 296-24-95613 to 296-800-280.
- Removed outdated reference in subsection (6) to WAC 296-24-120; those requirements are now in chapter 296-800 WAC, which is already listed.

**WAC 296-62-07339 Appendix C—Medical surveillance guidelines for acrylonitrile.**

- In subsection (2)(a), removed the word "contract" and replaced it with the bracketed word "contact" that was next to it in the sentence. It appears this update was meant to be made previously, but it didn't occur. Removed the brackets around the word "contact."

**WAC 296-62-07342 1, 2-Dibromo-3-chloropropane.**

- Updated outdated reference in subsection (15)(a)(ii)(C) from "chapter 296-62 WAC, Part E" to "chapter 296-842 WAC," which is where respiratory protections are covered.
- Removed subsection (16)(b)(ii) and its outdated language referring to June 1, 2016, that is no longer relevant. Renumbered the subsection.
- Removed subsection (16)(c)(iii) and its outdated language referring to June 1, 2015, that is no longer relevant.

**WAC 296-62-07373 Communication of EtO hazards.**

- Removed subsection (2)(a)(ii) and its outdated language referring to June 1, 2016, that is no longer relevant. Renumbered subsection.
- Removed subsections (2)(b)(ii)(A) and (B) and (c) and its outdated language referring to June 1, 2015, that is no longer relevant. Relettered the subsection.

**WAC 296-62-07425 Communication of cadmium hazards.**

- Removed outdated language referring to June 1, 2016, from subsection (4)(b) that is no longer relevant. Relettered the subsection.
- Removed outdated language referring to June 1, 2015, from subsection (5)(b) that is no longer relevant. Relettered the subsection.
- Updated outdated reference in subsection (6)(c)(ix) from "chapter 296-62 WAC, Part E" to "chapter 296-842 WAC," which is where respiratory protections are covered.

**WAC 296-62-07460 1,3-Butadiene.**

- Updated outdated reference in subsection (10) from "WAC 296-62-3112 Hazardous waste operations and emergency responses" to "chapter 296-843 WAC, Hazardous waste operations."
- Removed outdated language from subsection (14)(a) referring to "this section becoming effective in 1997." Relettered the subsection.

- Removed subsection (14)(b)(iii) and its outdated language referring to this subsection being "implemented by February 4, 2000."

#### **WAC 296-62-07470 Methylene chloride.**

- Updated outdated reference in the "Note" under subsection (6)(d)(ii) from "WAC 296-62-3112" to "chapter 296-843 WAC."
- Updated outdated reference in the "Note" under subsection (7)(d)(ii) from "WAC 296-62-07150 through 296-62-07516" to "WAC 296-842-14005."
- Removed language referring to "medical surveillance" in subsection (10)(d)(i) that is outdated and no longer relevant.
- Updated outdated reference in subsection (13)(e) from "WAC 296-62-05215" to "WAC 296-802-600 transfer and disposal of employee records."
- Updated outdated reference in subsection (14)(d) from "[ ]WAC 296-62-07515" to "WAC 296-307-62610."

#### **WAC 296-62-07473 Appendix A.**

- Removed outdated reference to "WAC 296-24-120" in subsection (V) "Housekeeping and Hygiene Facilities," those requirements are now in chapter 296-800 WAC, which is already listed.
- Updated outdated reference in subsection (VI)(H) from "WAC 296-24-956" which was previously repealed to "WAC 296-24-957" where the electrical requirements are located.

#### **WAC 296-62-07519 Thiram.**

- Updated outdated reference in subsection (1) from "WAC 296-62-07515" to "chapter 296-841 WAC, Airborne contaminants."
- Updated outdated references in subsections (3)(c)(vi) and (ix) from "WAC 296-62-071" to "chapter 296-842 WAC, Respirators."

#### **WAC 296-62-07521 Lead.**

- Updated subsection (5)(i) to "Reserved" and added subsection letter (j) to avoid confusion of how the subsections in (5) were listed.
- Removed language from subsection (8)(b)(viii) referring to June 1, 2015, that is outdated and no longer relevant. Renumbered subsection.
- Updated outdated reference in subsection (13)(v)(C) from "chapter 296-62 WAC, Part E" to "chapter 296-842 WAC" which is where respiratory protections are covered.
- Removed subsection (14)(b)(v) and its outdated language referring to June 1, 2016, that is no longer relevant.
- Removed language in subsection (17)(b)(xi) referring to June 1, 2016, that is outdated and no longer relevant.

#### **WAC 296-62-07540 Formaldehyde.**

- Updated outdated reference in subsection (9)(a) from "WAC 296-24-120" to "WAC 296-800-230."

#### **WAC 296-62-07601 Scope and application.**

- Removed outdated reference to "WAC 296-62-054" in subsection (4). Those requirements are located in chapter 296-901 WAC, which is already listed.

#### **WAC 296-62-07619 Hygiene facilities and practices.**

- Updated outdated reference in subsection (2)(a)(i) from "WAC 296-24-12010" to "WAC 296-800-23065."

#### **WAC 296-62-07621 Communication of hazards.**

- Removed subsection (2)(a)(ii) and its outdated language referring to June 1, 2016, that is no longer relevant. Relettered subsection.
- Removed subsections (2)(b)(i) and (ii) and their outdated language referring to June 1, 2015, that is no longer relevant.
- Updated outdated reference in subsection (4)(b)(iii) from "WAC 296-62-07625" to "WAC 296-62-07627" and also added a reference to WAC 296-62-07629 to cover all requirements regarding "medical removal."

#### **WAC 296-62-07631 Recordkeeping.**

- Updated outdated references in subsections (3)(a), (4)(a), (d) and (6)(c) from "Part B of this chapter" to "chapter 296-802 WAC" which is where requirements regarding employee medical and exposure records are located.
- Updated outdated reference in subsection (3)(c) from "Part B of this chapter" to "WAC 296-802-20010."
- Updated outdated reference in subsection (6)(a) from "WAC 296-62-076" to "chapter 296-802 WAC."
- Updated outdated reference in subsection (6)(b) from "WAC 296-800-170" to "chapter 296-800 WAC."

#### **WAC 296-62-07637 Appendices.**

- Removed sentence referring to "respiratory fit testing in Appendix E of WAC 296-62-076," that section was previously repealed.

#### **WAC 296-62-07711 Regulated areas.**

- Updated outdated reference in subsection (7) from "chapter 296-62 WAC, Part M" to "chapter 296-809 WAC," the requirements of Part M were previously moved.

#### **WAC 296-62-07715 Respiratory protection.**

- Updated outdated reference in subsection (5)(b) from "WAC 296-62-07160 through 296-62-07162 and 296-62-07201 through 296-62-07248" to "chapter 296-842 WAC, Respirators."

#### **WAC 296-62-07721 Communication of hazards.**

- Removed subsection (4)(b)(iii) and its outdated language referring to June 1, 2016, that is no longer relevant.
- Removed subsection (5)(d) and its outdated language referring to June 1, 2015, that is no longer relevant.
- Updated outdated reference in subsection (7) from "WAC 296-62-05413" to "WAC 296-901-14014."

**WAC 296-62-14533 Cotton dust.**

- Removed subsection (10)(b) and its outdated language referring to June 1, 2016, that is no longer relevant. Also, removed letter (a) from subsection (10) for formatting purposes.

**WAC 296-62-20021 Communication of hazards.**

- Removed subsections (2)(e) and (f) and their outdated language referring to June 1, 2016, that is no longer relevant.
- Removed subsection (3)(b) and its outdated language referring to June 1, 2015, that is no longer relevant. Also, removed letter (a) from subsection (3) for formatting purposes.

**WAC 296-62-50055 Implementation plan.**

- Removed subsections (1)(a)-(c) and their outdated language referring to implementing a "written hazardous drugs control program" by January 1, 2014, "training" by July 1, 2014 and "installation of appropriate ventilated cabinets" by January 1, 2015.
- Removed subsection number (2) and replace subsection letters with numbers.

Citation of Rules Affected by this Order: Amending WAC 296-62-020 Definitions applicable to all sections of this chapter, 296-62-040 Unconstitutionality clause, 296-62-05520 Retain readily visible DOT labeling, 296-62-060 Control requirements in addition to those specified, 296-62-07302 Communication of hazards, 296-62-07304 Definitions, 296-62-07306 Requirements for areas containing carcinogens listed in WAC 296-62-07302, 296-62-07308 General regulated area requirements, 296-62-07310 Signs, information and training, 296-62-07312 Reports, 296-62-07314 Medical surveillance, 296-62-07316 Premixed solutions, 296-62-07329 Vinyl chloride, 296-62-07336 Acrylonitrile, 296-62-07338 Appendix B—Substance technical guidelines for acrylonitrile, 296-62-07339 Appendix C—Medical surveillance guidelines for acrylonitrile, 296-62-07340 Appendix D—Sampling and analytical methods for acrylonitrile, 296-62-07342 1,2-Dibromo-3-chloropropane, 296-62-07343 Appendix A—Substance safety data sheet for DBCP, 296-62-07355 Ethylene oxide, 296-62-07357 Definitions, 296-62-07359 Permissible exposure limits (PEL), 296-62-07361 Exposure monitoring, 296-62-07363 Regulated areas, 296-62-07365 Methods of compliance, 296-62-07369 Emergency situations, 296-62-07371 Medical surveillance, 296-62-07373 Communication of EtO hazards, 296-62-07375 Recordkeeping, 296-62-07377 Observation of monitoring, 296-62-07403 Definitions, 296-62-07405 Permissible exposure limit (PEL), 296-62-07407 Exposure monitoring, 296-62-07409 Regulated areas, 296-62-07411 Methods of compliance, 296-62-07415 Emergency situations, 296-62-07417 Protective work clothing and equipment, 296-62-07419 Hygiene areas and practices, 296-62-07421 Housekeeping, 296-62-07423 Medical surveillance, 296-62-07425 Communication of cadmium hazards, 296-62-07427 Recordkeeping, 296-62-07429 Observation of monitoring, 296-62-07441 Appendix A, substance safety data sheet—Cadmium, 296-62-07447 Appendix D—Occupational health history inter-

view with reference to cadmium exposure directions, 296-62-07460 1,3-Butadiene, 296-62-07470 Methylene chloride, 296-62-07473 Appendix A, 296-62-07519 Thiram, 296-62-07521 Lead, 296-62-07540 Formaldehyde, 296-62-07544 Appendix B—Sampling strategy and analytical methods for formaldehyde, 296-62-07546 Appendix C medical surveillance—Formaldehyde, 296-62-07601 Scope and application, 296-62-07603 Definitions, 296-62-07605 Permissible exposure limits (PEL), 296-62-07607 Emergency situations, 296-62-07609 Exposure monitoring, 296-62-07611 Regulated areas, 296-62-07613 Methods of compliance, 296-62-07615 Respiratory protection, 296-62-07617 Protective work clothing and equipment, 296-62-07619 Hygiene facilities and practices, 296-62-07621 Communication of hazards, 296-62-07623 Housekeeping, 296-62-07625 Medical surveillance, 296-62-07627 Medical removal—Temporary medical removal of an employee, 296-62-07629 Medical removal protection benefits, 296-62-07631 Recordkeeping, 296-62-07633 Observation of monitoring, 296-62-07637 Appendices, 296-62-07703 Definitions, 296-62-07705 Permissible exposure limits (PEL), 296-62-07706 Multiemployer worksites, 296-62-07709 Exposure assessment and monitoring, 296-62-07711 Regulated areas, 296-62-07712 Requirements for asbestos activities in construction and shipyard work, 296-62-07715 Respiratory protection, 296-62-07717 Protective work clothing and equipment, 296-62-07719 Hygiene facilities and practices, 296-62-07721 Communication of hazards, 296-62-07722 Employee information and training, 296-62-07723 Housekeeping, 296-62-07725 Medical surveillance, 296-62-07727 Recordkeeping, 296-62-07728 Competent person, 296-62-07735 Appendix A—WISHA reference method—Mandatory, 296-62-07743 Appendix E—Interpretation and classification of chest roentgenograms—Mandatory, 296-62-07745 Appendix F—Work practices and engineering controls for automotive brake and clutch inspection, disassembly, repair and assembly—Mandatory, 296-62-08003 Hexavalent chromium, 296-62-08005 Definitions, 296-62-08007 Permissible exposure limit (PEL), 296-62-08009 Exposure determination, 296-62-08011 Regulated areas, 296-62-08013 Methods of compliance, 296-62-08015 Respiratory protection, 296-62-08017 Protective work clothing and equipment, 296-62-08019 Hygiene areas and practices, 296-62-08021 Housekeeping, 296-62-08023 Medical surveillance, 296-62-08025 Communication of chromium (VI) hazards, 296-62-08027 Recordkeeping, 296-62-08029 Dates, 296-62-09001 Definitions, 296-62-09004 Ionizing radiation, 296-62-09005 Nonionizing radiation, 296-62-09007 Pressure, 296-62-09009 Vibration, 296-62-09013 Temperature, radiant heat, or temperature-humidity combinations, 296-62-09510 Scope and purpose, 296-62-09520 Definitions, 296-62-11019 Spray-finishing operations, 296-62-135 Oxygen deficient atmospheres, 296-62-13605 Definition, 296-62-13615 Adequate system, 296-62-13620 Exhaust, 296-62-13625 Make-up air quantity, 296-62-13630 Design and operation, 296-62-13635 Compatibility of systems, 296-62-14533 Cotton dust, 296-62-14535 Appendix A—Air sampling and analytical procedures for determining concentrations of cotton dust, 296-62-14541 Appendix D—Pulmonary function standards for cotton dust standard, 296-62-20001 Definitions, 296-62-20003 Permissible exposure

limit, 296-62-20005 Regulated areas, 296-62-20007 Exposure monitoring and measurement, 296-62-20009 Methods of compliance, 296-62-20013 Protective clothing and equipment, 296-62-20015 Hygiene facilities and practices, 296-62-20017 Medical surveillance, 296-62-20019 Employee information and training, 296-62-20021 Communication of hazards, 296-62-20023 Recordkeeping, 296-62-20025 Observation of monitoring, 296-62-50005 Scope, 296-62-50010 Definitions, and 296-62-50055 Implementation plan.

Statutory Authority for Adoption: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060.

Adopted under notice filed as WSR 18-20-104 on October 2, 2018.

Number of Sections Adopted in Order to Comply with Federal Statute: New 0, Amended 0, Repealed 0; Federal Rules or Standards: New 0, Amended 0, Repealed 0; or Recently Enacted State Statutes: New 0, Amended 0, Repealed 0.

Number of Sections Adopted at the Request of a Non-governmental Entity: New 0, Amended 137, Repealed 0.

Number of Sections Adopted on the Agency's own Initiative: New 0, Amended 137, Repealed 0.

Number of Sections Adopted in Order to Clarify, Streamline, or Reform Agency Procedures: New 0, Amended 0, Repealed 0.

Number of Sections Adopted using Negotiated Rule Making: New 0, Amended 0, Repealed 0; Pilot Rule Making: New 0, Amended 0, Repealed 0; or Other Alternative Rule Making: New 0, Amended 0, Repealed 0.

Date Adopted: December 18, 2018.

Joel Sacks  
Director

AMENDATORY SECTION (Amending WSR 07-03-163, filed 1/24/07, effective 4/1/07)

**WAC 296-62-020 Definitions applicable to all sections of this chapter.** Unless the context indicates otherwise, words used in this chapter shall have the meaning given in this section.

((1) "Adequate" or "effective" means) **Adequate or effective.** Compliance with terms and intent of these standards.

((2) "Appendix" means) **Appendix.** References or recommendations to be used as guides in applying the provisions of this chapter.

((3) "Approved" means) **Approved.** Approved by the director of the department of labor and industries or his authorized representative, or by an organization that is specifically named in a rule, such as Underwriters' Laboratories (UL), Mine Safety and Health Administration (MSHA), or the National Institute for Occupational Safety and Health (NIOSH).

((4) "Authorized person" means) **Authorized person.** A person approved or assigned by the employer to perform a specific type of duty or duties or to be at a specific location or locations at the job site.

((5) "Coal tar pitch volatiles") **Coal tar pitch volatiles.** As used in WAC ((296-62-07515)) 296-841-20025, Table ((F)) 3, include the fused polycyclic hydrocarbons which vol-

atilize from the distillation residues of coal, petroleum, (excluding asphalt), wood, and other organic matter. Asphalt (CAS 8052-42-4, and CAS 64742-93-4) is not covered under the "coal tar pitch volatiles" standard.

((6) "Competent person" means) **Competent person.** One who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective action to eliminate them.

((7) "Department" means) **Department.** The department of labor and industries.

((8) "Director" means) **Director.** The director of the department of labor and industries, or ((his)) their designated representative.

((9) "Employer" means) **Employer.** Any person, firm, corporation, partnership, business trust, legal representative, or other business entity which engages in any business, industry, profession, or activity in this state and employs one or more employees or who contracts with one or more persons, the essence of which is the personal labor of such person or persons and includes the state, counties, cities, and all municipal corporations, public corporations, political subdivisions of the state, and charitable organizations: Provided, That any persons, partnership, or business entity not having employees, and who is covered by the industrial insurance act shall be considered both an employer and an employee.

((10) "Hazard" means) **Hazard.** That condition, potential or inherent, which can cause injury, death, or occupational disease.

((11) "Occupational disease" means) **Occupational disease.** Such disease or infection as arises naturally and proximately out of employment.

((12) "Qualified" means) **Qualified.** One who, by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training, and experience, has successfully demonstrated ability to solve or resolve problems relating to the subject matter, the work, or the project.

((13) "Shall" or "must" means) **Shall or must.** Mandatory.

((14) "Should" or "may" means) **Should or may.** Recommended.

((15) "Suitable" means) **Suitable.** That which fits, or has the qualities or qualifications to meet a given purpose, occasion, condition, function, or circumstance.

((16) "Worker," "personnel," "person," "employee,") **Worker, personnel, person, employee, and other terms of like meaning**((7)). Unless the context of the provision containing such term indicates otherwise, mean an employee of an employer who is employed in the business of their employer whether by way of manual labor or otherwise and every person in this state who is engaged in the employment of or who is working under an independent contract the essence of which is their personal labor for an employer whether by manual labor or otherwise.

((17) "Work place" means) **Work place.** Any plant, yard, premises, room, or other place where an employee or employees are employed for the performance of labor or service over which the employer has the right of access or con-

trol. This includes, but is not limited to, all work places covered by industrial insurance under Title 51 RCW, as now or hereafter amended.

((18)) Abbreviations used in this chapter:

((a) "ANSI" means) **ANSI**, American National Standards Institute.

((b) "ASHRE" means) **ASHRE**, American Society of Heating and Refrigeration Engineers.

((c) "BTU" means) **BTU**, British thermal unit.

((d) "BTUH" means) **BTUH**, British thermal unit per hour.

((e) "CFM" means) **CFM**, Cubic feet per minute.

((f) "C.F.R." means) **C.F.R.** Code of Federal Register.

((g) "CGA" means) **CGA**, Compressed Gas Association.

((h) "ID" means) **ID**, Inside diameter.

((i) "MCA" means) **MCA**, Manufacturing Chemist Association or Chemical Manufacturer Association (CMA).

((j) "NEMA" means) **NEMA**, National Electrical Manufacturing Association.

((k) "NFPA" means) **NFPA**, National Fire Protection Association.

((l) "OD" means) **OD**, Outside diameter.

((m) "WAC" means) **WAC**, Washington Administrative Code.

((n) "WISHA" means) **WISHA**, Washington Industrial Safety and Health Act (chapter 80, Laws of 1973).

AMENDATORY SECTION (Amending Order 73-3, filed 5/7/73)

**WAC 296-62-040 Unconstitutionality clause.** In the event that any section, paragraph, sentence, clause, phrase or work of this chapter is declared unconstitutional or invalid for any reason the remainder of said standard or this chapter ((shall)) must not be affected thereby.

AMENDATORY SECTION (Amending WSR 14-07-086, filed 3/18/14, effective 5/1/14)

**WAC 296-62-05520 Retain readily visible DOT labeling.** You must((+)

•) retain readily visible DOT labeling as specified in Table 1.

Table 1 Specifications for Retaining DOT Labeling	
If you receive	Retain DOT markings, placards and labels UNTIL:
• Packages of hazardous materials	• Hazardous materials are sufficiently removed - Packaging must be ■ cleaned of residue ■ purged of vapors
• Freight containers • Rail freight cars • Motor vehicles • Transport vehicles	• Hazardous materials are sufficiently removed

Table 1 Specifications for Retaining DOT Labeling	
If you receive	Retain DOT markings, placards and labels UNTIL:
• Nonbulk packages that will not be reshipped	• You replace the DOT labeling with labeling that complies with WAC 296-901-140((;)) Hazard communication

AMENDATORY SECTION (Amending WSR 02-16-047, filed 8/1/02, effective 10/1/02)

**WAC 296-62-060 Control requirements in addition to those specified.**

Note: The requirements in this section apply only to agriculture. The requirements for general industry relating to control requirements have been moved to chapter 296-800 WAC, Safety and health core rules.

(1) In those cases where no acceptable standards have been derived for the control of hazardous conditions, every reasonable precaution ((shall)) must be taken to safeguard the health of the worker whether provided herein or not.

(2) Preservation of records.

(a) Scope and application. This section applies to each employer who makes, maintains or has access to employee exposure records or employee medical records.

(b) Definitions.

(i) ((^))**Employee exposure record**((("—"))). A record of monitoring or measuring which contains qualitative or quantitative information indicative of employee exposure to toxic materials or harmful physical agents. This includes both individual exposure records and general research or statistical studies based on information collected from exposure records.

(ii) ((^))**Employee medical record**((("—"))). A record which contains information concerning the health status of an employee or employees exposed or potentially exposed to toxic materials or harmful physical agents. These records may include, but are not limited to:

(A) The results of medical examinations and tests;

(B) Any opinions or recommendations of a physician or other health professional concerning the health of an employee or employees; and

(C) Any employee medical complaints relating to workplace exposure. Employee medical records include both individual medical records and general research or statistical studies based on information collected from medical records.

(c) Preservation of records. Each employer who makes, maintains, or has access to employee exposure records or employee medical records ((shall)) must preserve these records.

(d) Availability of records. The employer ((shall)) must make available, upon request, to the director, department of labor and industries, or his designee, all employee exposure records and employee medical records for examination and copying.

(e) Effective date. This standard shall become effective thirty days after filing with the code reviser.

(3) Monitoring of employees. The department ~~((shall))~~ must use industrial hygiene sampling methods and techniques including but not limited to personal monitoring devices and equipment approved by the director or his designee for the purpose of establishing compliance with chapter 296-62 WAC.

(a) The employer ~~((shall))~~ must permit the director or his designee to monitor and evaluate any workplace or employee in accordance with all provisions of this subsection.

(b) The employer ~~((shall))~~ must not prevent or discourage an employee from cooperating with the department by restricting or inhibiting his/her participation in the use of personal monitoring devices and equipment in accordance with all provisions of this subsection.

AMENDATORY SECTION (Amending WSR 14-07-086, filed 3/18/14, effective 5/1/14)

**WAC 296-62-07302 Communication of hazards.** (1) Hazard communication.

(a) Chemical manufacturers, importers, distributors, and employers ~~((shall))~~ must comply with all requirements of the Hazard Communication Standard (HCS), WAC 296-901-140 for each carcinogen listed in subsection (2) of this section.

(b) In classifying the hazards of carcinogens listed in subsection (2) of this section, at least the hazards listed in subsection (2) of this section are to be addressed.

(c) Employers ~~((shall))~~ must include the carcinogens listed in subsection (2) of this section in the hazard communication program established to comply with the HCS, WAC 296-901-140. Employers ~~((shall))~~ must ensure that each employee has access to labels on containers of the carcinogens listed in subsection (2) of this section and to safety data sheets, and is trained in accordance with the requirements of HCS and subsection (2) of this section.

(2) List of carcinogens:

(a) 4-Nitrophenyl: Cancer (CAS 92-93-3).

(b) Alpha-Naphthylamine: Cancer; skin irritation; and acute toxicity effects (CAS 134-32-7).

(c) Methyl chloromethyl ether: Cancer; skin, eye and respiratory effects; acute toxicity effects; and flammability (CAS 107-30-2).

(d) 3,3'-Dichlorobenzidine (and its salts): Cancer and skin sensitization (CAS 91-94-1).

(e) Bis-Chloromethyl ether: Cancer; skin, eye, and respiratory tract effects; acute toxicity effects; and flammability (CAS 542-88-1).

(f) Beta-Naphthylamine: Cancer and acute toxicity effects (CAS 91-59-8).

(g) Benzidine: Cancer and acute toxicity effects (CAS 92-87-5).

(h) 4-Aminodiphenyl: Cancer (CAS 92-67-1).

(i) Ethyleneimine: Cancer; mutagenicity; skin and eye effects; liver effects; kidney effects; acute toxicity effects; and flammability (CAS 151-56-4).

(j) Beta-Propiolactone: Cancer; skin irritation; eye effects; and acute toxicity effects (CAS 57-57-8).

(k) 2-Acetylaminofluorene: Cancer (CAS 53-96-3).

(l) 4-Dimethylaminoazo-benzene: Cancer, skin effects; and respiratory tract irritation (CAS 60-11-7).

(m) N-Nitrosodimethylamine: Cancer; liver effects; and acute toxicity effects (CAS 62-75-9).

AMENDATORY SECTION (Amending WSR 02-12-098, filed 6/5/02, effective 8/1/02)

**WAC 296-62-07304 Definitions.** The definitions set forth in this section apply throughout WAC 296-62-073 through 296-62-07316.

~~((1) Absolute filter--))~~ **Absolute filter.** Is one capable of retaining 99.97 percent of a mono disperse aerosol of 0.3 micron size particles.

~~((2) Authorized employee--))~~ **Authorized employee.** An employee whose duties require him to be in the regulated area and who has been specifically assigned to those duties by the employer.

~~((3) Clean change room--))~~ **Clean change room.** A room where employees put on clean clothing and/or protective equipment in an environment free of carcinogens listed in WAC 296-62-07302. The clean change room shall be contiguous to and have an entry from a shower room, when the shower room facilities are otherwise required in this section.

~~((4) Closed system--))~~ **Closed system.** An operation involving carcinogens listed in WAC 296-62-07302 where containment prevents the release of carcinogens.

~~((5) Decontamination--))~~ **Decontamination.** The inactivation of a carcinogen listed in WAC 296-62-07302 or its safe disposal.

~~((6) Disposal--))~~ **Disposal.** The safe removal of a carcinogen listed in WAC 296-62-07302 from the work environment.

~~((7) Emergency--))~~ **Emergency.** An unforeseen circumstance or set of circumstances resulting in the release of a carcinogen which may result in exposure to or contact with any carcinogen listed in WAC 296-62-07302.

~~((8) External environment--))~~ **External environment.** Any environment external to regulated and nonregulated areas.

~~((9) Isolated system--))~~ **Isolated system.** A fully enclosed structure other than the vessel of containment of a listed carcinogen which is impervious to the passage of listed carcinogens and which would prevent the entry of carcinogens into regulated areas, nonregulated areas, or the external environment, should leakage or spillage from the vessel of containment occur.

~~((10) Laboratory-type hood--))~~ **Laboratory-type hood.** A device enclosed on three sides and the top and bottom, designed and maintained so as to draw air inward at an average linear face velocity of 150 feet per minute with a minimum of 125 feet per minute, designed, constructed and maintained such that an operation involving a listed carcinogen within the hood does not require the insertion of any portion of any employees' body other than his hands and arms.

~~((11) Nonregulated area--))~~ **Nonregulated area.** Any area under the control of the employer where entry and exit is neither restricted nor controlled.

~~((12) Open vessel system--))~~ **Open-vessel system.** An operation involving listed carcinogens in an open vessel, which is not in an isolated system, a laboratory-type hood, nor in any other system affording equivalent protection

against the entry of carcinogens into regulated areas, nonregulated areas, or the external environment.

~~((13) Protective clothing--))~~ **Protective clothing.** Clothing designed to protect an employee against contact with or exposure to listed carcinogens.

~~((14) Regulated area--))~~ **Regulated area.** An area where entry and exit is restricted and controlled.

AMENDATORY SECTION (Amending WSR 14-07-086, filed 3/18/14, effective 5/1/14)

**WAC 296-62-07306 Requirements for areas containing carcinogens listed in WAC 296-62-07302.** (1) A regulated area ~~((shall))~~ **must** be established by an employer where listed carcinogens are manufactured, processed, used, repackaged, released, handled or stored.

(2) All such areas ~~((shall))~~ **must** be controlled in accordance with the requirements for the following category or categories describing the operation involved:

(a) Isolated systems. Employees working with carcinogens within an isolated system such as a "glove box" ~~((shall))~~ **must** wash their hands and arms upon completion of the assigned task and before engaging in other activities not associated with the isolated system.

(b) Closed system operation. Within regulated areas where carcinogens are stored in sealed containers, or contained in a closed system including piping systems with any sample ports or openings closed while carcinogens are contained within:

(i) Access ~~((shall))~~ **must** be restricted to authorized employees only;

(ii) Employees ~~((shall be required to))~~ **must** wash hands, forearms, face and neck upon each exit from the regulated areas, close to the point of exit and before engaging in other activities.

(c) Open vessel system operations. Open vessel system operations as defined in WAC 296-62-07304~~((12))~~ are prohibited.

(d) Transfer from a closed system. Charging or discharging point operations, or otherwise opening a closed system. In operations involving "laboratory-type hoods," or in locations where a carcinogen is contained in an otherwise "closed system," but is transferred, charged, or discharged into other normally closed containers, the provisions of this section shall apply.

(i) Access ~~((shall))~~ **must** be restricted to authorized employees only;

(ii) Each operation ~~((shall))~~ **must** be provided with continuous local exhaust ventilation so that air movement is always from ordinary work areas to the operation. Exhaust air ~~((shall))~~ **must** not be discharged to regulated areas, nonregulated areas or the external environment unless decontaminated. Clean makeup air ~~((shall))~~ **must** be introduced in sufficient volume to maintain the correct operation of the local exhaust system.

(iii) Employees ~~((shall))~~ **must** be provided with, and required to wear, clean, full body protective clothing (smocks, coveralls, or long-sleeved shirt and pants), shoe covers and gloves prior to entering the regulated area.

(iv) Each employee engaged in handling operations involving the following carcinogens must be provided with and required to wear and use a NIOSH-certified self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode, or any supplied air respirator that has a full facepiece and is operated in a pressure-demand or other positive pressure mode in combination with an auxiliary self-contained positive-pressure breathing apparatus as required in chapter 296-842 WAC. A respirator affording higher levels of protection than this respirator may be substituted.

- ~~((~~
  - Methyl Chloromethyl Ether;
  - bis-Chloromethyl Ether;
  - Ethylenimine;
  - beta-Propiolactone;
  - 4-Amino Diphenyl:))

(A) Methyl Chloromethyl Ether;

(B) bis-Chloromethyl Ether;

(C) Ethylenimine;

(D) beta-Propiolactone;

(E) 4-Amino Diphenyl.

(v) Each employee engaged in handling operations involving the following carcinogens must be provided with, and required to wear and use, NIOSH-certified air-purifying, half-mask respirator with particulate filters as required in chapter 296-842 WAC. A respirator affording higher levels of protection than this respirator may be substituted.

- ~~((~~
  - 4-Nitrobiphenyl;
  - alpha-Naphthylamine;
  - 4-4'Methylene bis(2-Chloroaniline);
  - 3-3'Dichlorobenzidine (and its salts);
  - beta-Naphthylamine;
  - Benzidine;
  - 2-acetylamino fluorene;
  - 4-imethylaminoazobenzene;
  - n-nitrosodimethylamine:))

(A) 4-Nitrobiphenyl;

(B) alpha-Naphthylamine;

(C) 4-4'Methylene bis(2-Chloroaniline);

(D) 3-3'Dichlorobenzidine (and its salts);

(E) beta-Naphthylamine;

(F) Benzidine;

(G) 2-acetylamino fluorene;

(H) 4-imethylaminoazobenzene;

(I) n-nitrosodimethylamine.

must be provided with, and required to wear and use, a half-face, filter-type respirator certified for solid or liquid particulates with minimum efficiency rating of 95% as required in chapter 296-842 WAC. A respirator affording higher levels of protection than this respirator may be substituted.

(vi) Prior to each exit from a regulated area, employees ~~((shall be required to))~~ **must** remove and leave protective

clothing and equipment at the point of exit and at the last exit of the day, to place used clothing and equipment in impervious containers at the point of exit for purposes of decontamination or disposal. The contents of such impervious containers ~~((shall))~~ must be identified, as required under WAC 296-62-07302.

(vii) Employees ~~((shall be required to))~~ must wash hands, forearms, face and neck on each exit from the regulated area, close to the point of exit, and before engaging in other activities.

(viii) Employees ~~((shall be required to))~~ must shower after the last exit of the day.

(ix) Drinking fountains are prohibited in the regulated area.

(e) Maintenance and decontamination activities. In clean up of leaks or spills, maintenance or repair operations on contaminated systems or equipment, or any operations involving work in an area where direct contact with carcinogens could result, each authorized employee entering the area ~~((shall))~~ must:

(i) Be provided with and required to wear, clean, impervious garments, including gloves, boots and continuous-air supplied hood in accordance with WAC 296-800-160, and respiratory protective equipment required by this chapter 296-842 WAC;

(ii) Be decontaminated before removing the protective garments and hood;

(iii) ~~((Be required to))~~ Shower upon removing the protective garments and hood.

(f) Laboratory activities. The requirements of this subdivision shall apply to research and quality control activities involving the use of carcinogens listed in WAC 296-62-07302.

(i) Mechanical pipetting aids ~~((shall))~~ must be used for all pipetting procedures.

(ii) Experiments, procedures and equipment which could produce aerosols ~~((shall))~~ must be confined to laboratory-type hoods or glove boxes.

(iii) Surfaces on which carcinogens are handled ~~((shall))~~ must be protected from contamination.

(iv) Contaminated wastes and animal carcasses ~~((shall))~~ must be collected in impervious containers which are closed and decontaminated prior to removal from the work area. Such wastes and carcasses ~~((shall))~~ must be incinerated in such a manner that no carcinogenic products are released.

(v) All other forms of listed carcinogens ~~((shall))~~ must be inactivated prior to disposal.

(vi) Laboratory vacuum systems ~~((shall))~~ must be protected with high efficiency scrubbers or with disposable absolute filters.

(vii) Employees engaged in animal support activities ~~((shall))~~ must be:

(A) Provided with, and required to wear, a complete protective clothing change, clean each day, including coveralls or pants and shirt, foot covers, head covers, gloves, and appropriate respiratory protective equipment or devices; and

(B) Prior to each exit from a regulated area, employees ~~((shall be required to))~~ must remove and leave protective clothing and equipment at the point of exit and at the last exit of the day, to place used clothing and equipment in impervi-

ous containers at the point of exit for purposes of decontamination or disposal. The contents of such impervious containers ~~((shall))~~ must be identified as required under WAC 296-62-07310 (2)~~((,-(3) and (4))~~) and (3).

(C) Required to wash hands, forearms, face and neck upon each exit from the regulated area close to the point of exit, and before engaging in other activities; and

(D) Required to shower after the last exit of the day.

(viii) Employees, other than those engaged only in animal support activities, each day ~~((shall))~~ must be:

(A) Provided with and required to wear a clean change of appropriate laboratory clothing, such as a solid front gown, surgical scrub suit, or fully buttoned laboratory coat.

(B) Prior to each exit from a regulated area, employees ~~((shall be required to))~~ must remove and leave protective clothing and equipment at the point of exit and at the last exit of the day, to place used clothing and equipment in impervious containers at the point of exit for purposes of decontamination or disposal. The contents of such impervious containers shall be identified as required under WAC 296-62-07310 (2)~~((,-(3) and (4))~~) and (3).

(C) Required to wash hands, forearms, face and neck upon each exit from the regulated area close to the point of exit, and before engaging in other activities.

(ix) Air pressure in laboratory areas and animal rooms where carcinogens are handled and bioassay studies are performed ~~((shall))~~ must be negative in relation to the pressure in surrounding areas. Exhaust air ~~((shall))~~ must not be discharged to regulated areas, nonregulated areas or the external environment unless decontaminated.

(x) There ~~((shall be no))~~ must not be any connection between regulated areas and any other areas through the ventilation system.

(xi) A current inventory of the carcinogens ~~((shall))~~ must be maintained.

(xii) Ventilated apparatus such as laboratory-type hoods, ~~((shall))~~ must be tested at least ~~((semi-annually))~~ semiannually or immediately after ventilation modification or maintenance operations, by personnel fully qualified to certify correct containment and operation.

AMENDATORY SECTION (Amending WSR 09-15-145, filed 7/21/09, effective 9/1/09)

**WAC 296-62-07308 General regulated area requirements.** (1) Respirator program. The employer must implement a respiratory protection program as required in chapter 296-62 WAC, Part E (except WAC 296-62-07130 (1) and (5) and 296-62-07131), which covers each employee required by this chapter to use a respirator.

(2) Emergencies. In an emergency, immediate measures including, but not limited to, the requirements of (a), (b), (c), (d) and (e) of this subsection ~~((shall))~~ must be implemented.

(a) The potentially affected area ~~((shall))~~ must be evacuated as soon as the emergency has been determined.

(b) Hazardous conditions created by the emergency ~~((shall))~~ must be eliminated and the potentially affected area ~~((shall))~~ must be decontaminated prior to the resumption of normal operations.

(c) Special medical surveillance by a physician ~~((shall))~~ must be instituted within twenty-four hours for employees present in the potentially affected area at the time of the emergency. A report of the medical surveillance and any treatment ~~((shall))~~ must be included in the incident report, in accordance with WAC 296-62-07312(2).

(d) Where an employee has a known contact with a listed carcinogen, such employee ~~((shall be required to))~~ must shower as soon as possible, unless contraindicated by physical injuries.

(e) An incident report on the emergency ~~((shall))~~ must be reported as provided in WAC 296-62-07312(2).

(3) Hygiene facilities and practices.

(a) Storage or consumption of food, storage or use of containers of beverages, storage or application of cosmetics, smoking, storage of smoking materials, tobacco products or other products for chewing, or the chewing of such products, are prohibited in regulated areas.

(b) Where employees are required by this section to wash, washing facilities ~~((shall))~~ must be provided in accordance with WAC 296-800-230.

(c) Where employees are required by this section to shower, shower facilities ~~((shall))~~ must be provided.

(i) One shower ~~((shall))~~ must be provided for each ten employees of each sex, or numerical fraction thereof, who are required to shower during the same shift.

(ii) Body soap or other appropriate cleansing agents convenient to the showers ~~((shall))~~ must be provided as specified in WAC 296-800-230, of the safety and health core rules.

(iii) Showers ~~((shall))~~ must be provided with hot and cold water feeding a common discharge line.

(iv) Employees who use showers ~~((shall))~~ must be provided with individual clean towels.

(d) Where employees wear protective clothing and equipment, clean change rooms ~~((shall))~~ must be provided and ~~((shall))~~ must be equipped with storage facilities for street clothes and separate storage facilities for the protective clothing for the number of such employees required to change clothes.

(e) Where toilets are in regulated areas, such toilets ~~((shall))~~ must be in a separate room.

(4) Contamination control.

(a) Regulated areas, except for outdoor systems, ~~((shall))~~ must be maintained under pressure negative with respect to nonregulated areas. Local exhaust ventilation may be used to satisfy this requirement. Clean makeup air in equal volume ~~((shall))~~ must replace air removed.

(b) Any equipment, material, or other item taken into or removed from a regulated area ~~((shall))~~ must be done so in a manner that does not cause contamination in nonregulated areas or the external environment.

(c) Decontamination procedures ~~((shall))~~ must be established and implemented to remove carcinogens from the surfaces of materials, equipment and the decontamination facility.

(d) Dry sweeping and dry mopping are prohibited.

AMENDATORY SECTION (Amending WSR 14-07-086, filed 3/18/14, effective 5/1/14)

**WAC 296-62-07310 Signs, information and training.**

(1) Signs.

(a) The employer ~~((shall))~~ must post signs at entrances to regulated areas ~~((with signs bearing))~~. The signs must bear the legend:

DANGER  
(CHEMICAL IDENTIFICATION)  
MAY CAUSE CANCER  
  
AUTHORIZED PERSONNEL ONLY

(b) The employer ~~((shall))~~ must post signs at entrances to regulated areas containing operations covered in WAC 296-62-07306 (2)(e). The signs ~~((shall))~~ must bear the legend:

DANGER  
(CHEMICAL IDENTIFICATION)  
MAY CAUSE CANCER  
  
WEAR AIR-SUPPLIED HOODS, IMPERVIOUS SUITS,  
AND PROTECTIVE EQUIPMENT IN THIS AREA  
  
AUTHORIZED PERSONNEL ONLY

~~(c) ((Prior to June 1, 2016, employers may use the following legend in lieu of that specified in (a) of this subsection:~~

~~CANCER-SUSPECT AGENT  
AUTHORIZED PERSONNEL ONLY~~

~~(d) Prior to June 1, 2016, employers may use the following legend in lieu of that specified in (b) of this subsection:~~

~~CANCER-SUSPECT AGENT EXPOSED IN THIS AREA  
IMPERVIOUS SUIT INCLUDING GLOVES, BOOTS, AND AIR-SUPPLIED HOOD  
REQUIRED AT ALL TIMES  
AUTHORIZED PERSONNEL ONLY~~

~~(e))~~ Appropriate signs and instructions ~~((shall))~~ must be posted at the entrance to, and exit from, regulated areas, informing employees of the procedures that must be followed in entering and leaving a regulated area.

(2) Prohibited statements. No statements shall appear on or near any required sign, label, or instruction that contradicts or detracts from the effect of any required warning, information or instruction.

(3) Training and indoctrination.

(a) Each employee prior to being authorized to enter a regulated area, ~~((shall))~~ must receive a training and indoctrination program including, but not necessarily limited to:

(i) The nature of the carcinogenic hazards of listed carcinogens, including local and systemic toxicity;

(ii) The specific nature of the operation involving carcinogens which could result in exposure;

(iii) The purpose for and application of the medical surveillance program, including, as appropriate, methods of self-examination;

(iv) The purpose for and application of decontamination practices and purposes;

- (v) The purpose for and significance of emergency practices and procedures;
  - (vi) The employee's specific role in emergency procedures;
  - (vii) Specific information to aid the employee in recognition and evaluation of conditions and situations which may result in the release of listed carcinogens;
  - (viii) The purpose for and application of specific first-aid procedures and practices;
  - (ix) A review of this section at the employee's first training and indoctrination program and annually thereafter.
- (b) Specific emergency procedures (~~shall~~) must be prescribed, and posted, and employees, (~~shall~~) must be familiarized with their terms, and rehearsed in their application.
- (c) All materials relating to the program (~~shall~~) must be provided upon request to the director.

**AMENDATORY SECTION** (Amending WSR 02-12-098, filed 6/5/02, effective 8/1/02)

**WAC 296-62-07312 Reports.** (1) Operations. Not later than October 30, 1974, the information required in (~~WAC 296-62-07312(1)~~)(a), (b), (c) and (d) of this (~~section~~) subsection must be reported in writing to the Department of Labor and Industries, WISHA Services Division, Policy and Technical Services, P.O. Box 44610, Olympia, WA 98504-4610. Any changes in the information must also be reported in writing within 15 calendar days of the change.

- (a) A brief description and in plant location of the area(s) regulated and the address of each regulated area;
  - (b) The name(s) and other identifying information as to the presence of listed carcinogens in each regulated area;
  - (c) The number of employees in each regulated area, during normal operations including maintenance activities; and
  - (d) The manner in which a carcinogen is present in each regulated area; e.g., whether it is manufactured, processed, used, repackaged, released, stored, or otherwise handled.
- (2) Incidents. Incidents which result in the release of a listed carcinogen into any area where employees may be potentially exposed (~~shall~~) must be reported in accordance with this subsection.

(a) The occurrence of the incident, including any facts obtainable at that time, as well as a report on any medical treatment of affected employees, must be reported within 24 hours to the Department of Labor and Industries, WISHA Services Division, Policy and Technical Services, P.O. Box 44610, Olympia, WA 98504-4610.

(b) A written report must be filed with the Department of Labor and Industries, WISHA Services Division, Policy and Technical Services, P.O. Box 44610, Olympia, WA 98504-4610, within 15 calendar days after the incident occurs, and must include:

- (i) A specification of the amount of material released, the amount of time involved, and an explanation of the procedure used in determining this figure;
- (ii) A description of the area involved, and the extent of known and possible employee exposure and area contamination;

- (iii) A report of any medical treatment of affected employees, and any medical surveillance program implemented; and
- (iv) An analysis of the circumstances of the incident, and measures taken or to be taken, with specific completion dates, to avoid further similar releases.

CARCINOGEN STANDARD REPORT

Company: . . . . . Prepared By: . . . . .  
 Plant Address: . . . . . Title: . . . . .  
 Date: . . . . .

Compound and Other Identifying Information	Description of Inplant Location of Regulated Area*	Number of Employees in Area* Normally Maintained	Manner** In Which Compound is Present in Each Regulated Area*
--	--	--	---

\* See WAC ((296-62-07308)) 296-62-07304 for definition of "regulated area."  
 \*\* Indicated whether manufactured, processed, used, repackaged, released, stored, or if otherwise handled (describe).

**AMENDATORY SECTION** (Amending WSR 12-24-071, filed 12/4/12, effective 1/4/13)

**WAC 296-62-07314 Medical surveillance.** (1) At no cost to the employee, a program of medical surveillance must be established and implemented for employees considered for assignment to enter regulated areas, and for authorized employees.

- (2) Examinations.
  - (a) Before an employee is assigned to enter a regulated area, a preassignment physical examination by a physician must be provided and must include a personal history of the employee and/or (~~his/her~~) their family and occupational background, including genetic and environmental factors.
    - (i) Taking of employees' medical history and background history must be considered to be a routine part of standard medical practice.
    - (ii) This provision does not require "genetic testing" of any employee.
    - (iii) This provision does not require the exclusion of otherwise qualified employees from jobs on the basis of genetic factors.
  - (b) Authorized employees must be provided periodic physical examination, not less often than annually, following the preassignment examination.
  - (c) In all physical examinations, the examining physician must be requested to consider whether there exist conditions of increased risk, including reduced immunological competence, pregnancy, cigarette smoking, and those undergoing treatment with steroids or cytotoxic agents.
- (3) Records.
  - (a) Employers of employees examined pursuant to this subdivision must maintain complete and accurate records of all such medical examinations. Records must be maintained for the duration of the employee's employment. The employer (~~shall~~) must ensure that medical records are maintained and made available in accordance with chapter 296-802 WAC, Employee medical and exposure records.

(b) Records required by this section must be provided upon request to employees, designated representatives, and the director in accordance with chapter 296-802 WAC.

(c) Any employer who requests a physical examination of an employee or prospective employee as required by this section must obtain from the physician a statement of the employee's suitability for employment in the specific exposure.

**AMENDATORY SECTION** (Amending WSR 80-17-014, filed 11/13/80)

**WAC 296-62-07316 Premixed solutions.** ~~((+))~~

Where 4,4'-Methylene bis (2-chloroaniline) is present only in a single solution at a temperature not exceeding 220°F. The establishment of a regulated area is not required; however~~((;~~

~~((+))~~;

(1) Only authorized employees shall be permitted to handle such materials.

~~((+))~~ (2) Each day employees ~~((shall))~~ must be provided with and required to wear a clean change of protective clothing (smocks, coveralls, or long-sleeved shirts and pants), gloves and other protective garments and equipment necessary to prevent contact with the solution in the process used.

~~((+))~~ (3) Employees ~~((shall be required to))~~ must remove and leave protective clothing and equipment when leaving the work area at the end of the work day, or at any time solution is spilled on such clothing or equipment. Used clothing and equipment ~~((shall))~~ must be placed in impervious containers for purposes of decontamination or disposal. The contents of such impervious containers ~~((shall))~~ must be identified, as required under WAC 296-62-07310 (2)(~~((;))~~) and (3) ~~((and (4)))~~.

~~((+))~~ (4) Employees ~~((shall be required to))~~ must wash hands and face after removing such clothing and equipment and before engaging in other activities.

~~((+))~~ (5) Employees assigned to work covered by this section ~~((shall))~~ must be deemed to be working in regulated areas for the purposes of WAC 296-62-07308 (1), (2)(a) and (b), and (3)(c) and (d), 296-62-07310, 296-62-07312 and 296-62-07314.

~~((+))~~ (6) Work areas where solution may be spilled ~~((shall))~~ must be:

~~((+))~~ (a) Covered daily or after any spill with a clean covering; or

~~((+))~~ (b) Clean thoroughly, daily and after any spill.

**AMENDATORY SECTION** (Amending WSR 14-07-086, filed 3/18/14, effective 5/1/14)

**WAC 296-62-07329 Vinyl chloride.** (1) Scope and application.

(a) This section includes requirements for the control of employee exposure to vinyl chloride (chloroethene), Chemical Abstracts Service Registry No. 75014.

(b) This section applies to the manufacture, reaction, packaging, repackaging, storage, handling or use of vinyl chloride or polyvinyl chloride, but does not apply to the handling or use of fabricated products made of polyvinyl chloride.

(c) This section applies to the transportation of vinyl chloride or polyvinyl chloride except to the extent that the department of transportation may regulate the hazards covered by this section.

(2) Definitions.

(a) ~~(("Action level" means))~~ **Action level.** A concentration of vinyl chloride of 0.5 ppm averaged over an eight-hour work day.

(b) ~~(("Authorized person" means))~~ **Authorized person.** Any person specifically authorized by the employer whose duties require ~~((him/her))~~ them to enter a regulated area or any person entering such an area as a designated representative of employees for the purpose of exercising an opportunity to observe monitoring and measuring procedures.

(c) ~~(("Director" means))~~ **Director.** The director of department of labor and industries or ~~((his/her))~~ their designated representative.

(d) ~~(("Emergency" means))~~ **Emergency.** A any occurrence such as, but not limited to, equipment failure, or operation of a relief device which is likely to, or does, result in massive release of vinyl chloride.

(e) ~~(("Fabricated product" means))~~ **Fabricated product.** A product made wholly or partly from polyvinyl chloride, and which does not require further processing at temperatures, and for times, sufficient to cause mass melting of the polyvinyl chloride resulting in the release of vinyl chloride.

(f) ~~(("Hazardous operation" means))~~ **Hazardous operation.** Any operation, procedure, or activity where a release of either vinyl chloride liquid or gas might be expected as a consequence of the operation or because of an accident in the operation, which would result in an employee exposure in excess of the permissible exposure limit.

(g) ~~(("Polyvinyl chloride" means))~~ **Polyvinyl chloride.** Polyvinyl chloride homopolymer or copolymer before such is converted to a fabricated product.

(h) ~~(("Vinyl chloride" means))~~ **Vinyl chloride.** Vinyl chloride monomer.

(3) Permissible exposure limit.

(a) No employee may be exposed to vinyl chloride at concentrations greater than 1 ppm averaged over any 8-hour period, and

(b) No employee may be exposed to vinyl chloride at concentrations greater than 5 ppm averaged over any period not exceeding 15 minutes.

(c) No employee may be exposed to vinyl chloride by direct contact with liquid vinyl chloride.

(4) Monitoring.

(a) A program of initial monitoring and measurement ~~((shall))~~ must be undertaken in each establishment to determine if there is any employee exposed, without regard to the use of respirators, in excess of the action level.

(b) Where a determination conducted under subdivision (a) of this subsection shows any employee exposures without regard to the use of respirators, in excess of the action level, a program for determining exposures for each such employee ~~((shall))~~ must be established. Such a program:

(i) ~~((Shall))~~ Must be repeated at least monthly where any employee is exposed, without regard to the use of respirators, in excess of the permissible exposure limit.

(ii) ~~((shall))~~ Must be repeated not less than quarterly where any employee is exposed, without regard to the use of respirators, in excess of the action level.

(iii) May be discontinued for any employee only when at least two consecutive monitoring determinations, made not less than five working days apart, show exposures for that employee at or below the action level.

(c) Whenever there has been a production, process or control change which may result in an increase in the release of vinyl chloride, or the employer has any other reason to suspect that any employee may be exposed in excess of the action level, a determination of employee exposure under subdivision (a) of this subsection ~~((shall))~~ must be performed.

(d) The method of monitoring and measurement ~~((shall))~~ must have an accuracy (with a confidence level of 95 percent) of not less than plus or minus fifty percent from 0.25 through 0.5 ppm, plus or minus thirty-five percent from over 0.5 ppm through 1.0 ppm, plus or minus twenty-five percent over 1.0 ppm, (methods meeting these accuracy requirements are available from the director).

(e) Employees or their designated representatives ~~((shall))~~ must be afforded reasonable opportunity to observe the monitoring and measuring required by this subsection.

(5) Regulated area.

(a) A regulated area ~~((shall))~~ must be established where:

(i) Vinyl chloride or polyvinyl chloride is manufactured, reacted, repackaged, stored, handled or used; and

(ii) Vinyl chloride concentrations are in excess of the permissible exposure limit.

(b) Access to regulated areas ~~((shall))~~ must be limited to authorized persons.

(6) Methods of compliance. Employee exposures to vinyl chloride ~~((shall))~~ must be controlled to at or below the permissible exposure limit provided in subsection (3) of this section by engineering, work practice, and personal protective controls as follows:

(a) Feasible engineering and work practice controls ~~((shall))~~ must immediately be used to reduce exposures to at or below the permissible exposure limit.

(b) Wherever feasible engineering and work practice controls which can be instituted immediately are not sufficient to reduce exposures to at or below the permissible exposure limit, they ~~((shall))~~ must nonetheless be used to reduce exposures to the lowest practicable level, and ~~((shall))~~ must be supplemented by respiratory protection in accordance with subsection (7) of this section. A program ~~((shall))~~ must be established and implemented to reduce exposures to at or below the permissible exposure limit, or to the greatest extent feasible, solely by means of engineering and work practice controls, as soon as feasible.

(c) Written plans for such a program ~~((shall))~~ must be developed and furnished upon request for examination and copying to the director. Such plans ~~((shall))~~ must be updated at least every six months.

(7) Respiratory protection.

(a) General. For employees who use respirators required by this section, the employer must provide each employee an appropriate respirator that complies with the requirements of this section.

(b) Respirator program. The employer must develop, implement, and maintain a respiratory protection program as required in chapter 296-842 WAC, Respirators, which covers each employee required by this chapter to use a respirator. Exception: The requirements in WAC 296-842-13005 that address change out of vapor or gas respirator cartridges or canisters.

(c) Respirator selection. The employer must:

(i) Select and provide to employees appropriate respirators as specified in this section and WAC 296-842-13005 in the respirator rule.

(ii) Provide organic vapor cartridges that have a service life of at least one hour when employees use air-purifying respirators in vinyl chloride concentrations up to 10 parts per million (ppm).

(iii) Make sure the following respirators, when selected, are equipped with a canister with a service life of at least four hours when used in vinyl chloride concentrations up to 25 ppm:

(A) Helmet, hood, or full-facepiece PAPRs; or

(B) Gas masks with a front- or back-mounted canister.

(d) Where air-purifying respirators are used:

(i) Air-purifying canisters or cartridges must be replaced prior to the expiration of their service life or the end of the shift in which they are first used, whichever occurs first, and

(ii) A continuous monitoring and alarm system must be provided when concentrations of vinyl chloride could reasonably exceed the allowable concentrations for the devices in use. Such system ~~((shall))~~ must be used to alert employees when vinyl chloride concentrations exceed the allowable concentrations for the devices in use, and

(iii) Respirators specified for higher concentrations may be used for lower concentration.

(8) Hazardous operations.

(a) Employees engaged in hazardous operations, including entry of vessels to clean polyvinyl chloride residue from vessel walls, ~~((shall))~~ must be provided and required to wear and use;

(i) Respiratory protection in accordance with subsections (3) and (7) of this section; and

(ii) Protective garments to prevent skin contact with liquid vinyl chloride or with polyvinyl chloride residue from vessel walls. The protective garments ~~((shall))~~ must be selected for the operation and its possible exposure conditions.

(b) Protective garments ~~((shall))~~ must be provided clean and dry for each use.

(c) Emergency situations. A written operational plan for emergency situations ~~((shall))~~ must be developed for each facility storing, handling, or otherwise using vinyl chloride as a liquid or compressed gas. Appropriate portions of the plan ~~((shall))~~ must be implemented in the event of an emergency. The plan ~~((shall))~~ must specifically provide that:

(i) Employees engaged in hazardous operations or correcting situations of existing hazardous releases ~~((shall))~~ must be equipped as required in (a) and (b) of this subsection;

(ii) Other employees not so equipped ~~((shall))~~ must evacuate the area and not return until conditions are controlled by the methods required in subsection (6) of this section and the emergency is abated.

(9) Training. Each employee engaged in vinyl chloride or polyvinyl chloride operations ((~~shall~~) must) be provided training in a program relating to the hazards of vinyl chloride and precautions for its safe use.

(a) The program ((~~shall~~) must) include:

(i) The nature of the health hazard from chronic exposure to vinyl chloride including specifically the carcinogenic hazard;

(ii) The specific nature of operations which could result in exposure to vinyl chloride in excess of the permissible limit and necessary protective steps;

(iii) The purpose for, proper use, and limitations of respiratory protective devices;

(iv) The fire hazard and acute toxicity of vinyl chloride, and the necessary protective steps;

(v) The purpose for and a description of the monitoring program;

(vi) The purpose for and a description of, the medical surveillance program;

(vii) Emergency procedures:

(A) Specific information to aid the employee in recognition of conditions which may result in the release of vinyl chloride; and

(B) A review of this standard at the employee's first training and indoctrination program, and annually thereafter.

(b) All materials relating to the program ((~~shall~~) must) be provided upon request to the director.

(10) Medical surveillance. A program of medical surveillance ((~~shall~~) must) be instituted for each employee exposed, without regard to the use of respirators, to vinyl chloride in excess of the action level. The program ((~~shall~~) must) provide each such employee with an opportunity for examinations and tests in accordance with this subsection. All medical examinations and procedures ((~~shall~~) must) be performed by or under the supervision of a licensed physician and ((~~shall~~) must) be provided without cost to the employee.

(a) At the time of initial assignment, or upon institution of medical surveillance;

(i) A general physical examination ((~~shall~~) must) be performed with specific attention to detecting enlargement of liver, spleen or kidneys, or dysfunction in these organs, and for abnormalities in skin, connective tissues and the pulmonary system (see Appendix A).

(ii) A medical history ((~~shall~~) must) be taken, including the following topics:

(A) Alcohol intake,

(B) Past history of hepatitis,

(C) Work history and past exposure to potential hepatotoxic agents, including drugs and chemicals,

(D) Past history of blood transfusions, and

(E) Past history of hospitalizations.

(iii) A serum specimen ((~~shall~~) must) be obtained and determinations made of:

(A) Total bilirubin,

(B) Alkaline phosphatase,

(C) Serum glutamic oxalacetic transaminase (SGOT),

(D) Serum glutamic pyruvic transaminase (SGPT), and

(E) Gamma glutamyl transpeptidase.

(b) Examinations provided in accordance with this subdivision ((~~shall~~) must) be performed at least:

(i) Every six months for each employee who has been employed in vinyl chloride or polyvinyl chloride manufacturing for ten years or longer; and

(ii) Annually for all other employees.

(c) Each employee exposed to an emergency ((~~shall~~) must) be afforded appropriate medical surveillance.

(d) A statement of each employee's suitability for continued exposure to vinyl chloride including use of protective equipment and respirators, ((~~shall~~) must) be obtained from the examining physician promptly after any examination. A copy of the physician's statement ((~~shall~~) must) be provided each employee.

(e) If any employee's health would be materially impaired by continued exposure, such employee ((~~shall~~) must) be withdrawn from possible contact with vinyl chloride.

(f) Laboratory analyses for all biological specimens included in medical examinations ((~~shall~~) must) be performed in laboratories licensed under 42 C.F.R. Part 74.

(g) If the examining physician determines that alternative medical examinations to those required by (a) of this subsection will provide at least equal assurance of detecting medical conditions pertinent to the exposure to vinyl chloride, the employer may accept such alternative examinations as meeting the requirements of (a) of this subsection, if the employer obtains a statement from the examining physician setting forth the alternative examinations and the rationale for substitution. This statement ((~~shall~~) must) be available upon request for examination and copying to authorized representatives of the director.

(11) Communication of hazards.

(a) Hazard communication - General.

(b) Chemical manufacturers, importers, distributors and employers ((~~shall~~) must) comply with all requirements of the Hazard Communication Standard (HCS), WAC 296-901-140 for vinyl chloride and polyvinyl chloride.

(c) In classifying the hazards of vinyl chloride at least the following hazards are to be addressed: Cancer; central nervous system effects; liver effects; blood effects; and flammability.

(d) Employers ((~~shall~~) must) include vinyl chloride in the hazard communication program established to comply with the HCS, WAC 296-901-140. Employers ((~~shall~~) must) ensure that each employee has access to labels on containers of vinyl chloride and to safety data sheets, and is trained in accordance with the requirements of HCS and subsection (9) of this section.

(12) Signs.

(a) The employers ((~~shall~~) must) post entrances to regulated areas with legible signs bearing the legend:

DANGER  
VINYL CHLORIDE  
MAY CAUSE CANCER  
AUTHORIZED PERSONNEL ONLY

(b) The employer ((~~shall~~) must) post signs at areas containing hazardous operations or where emergencies currently exist. The signs ((~~shall~~) must) be legible and bear the legend:

DANGER  
VINYL CHLORIDE  
MAY CAUSE CANCER  
WEAR RESPIRATORY PROTECTION AND PROTECTIVE CLOTHING  
IN THIS AREA  
AUTHORIZED PERSONNEL ONLY

~~((e) Prior to June 1, 2016, employers may use the following legend in lieu of that specified in (a) of this subsection:~~

~~CANCER-SUSPECT AGENT IN THIS AREA PROTECTIVE EQUIPMENT REQUIRED AUTHORIZED PERSONNEL ONLY~~

~~(d) Prior to June 1, 2016, employers may use the following legend in lieu of that specified in (b) of this subsection:~~

~~CANCER-SUSPECT AGENT IN THIS AREA  
PROTECTIVE EQUIPMENT REQUIRED  
AUTHORIZED PERSONNEL ONLY))~~

(13) Labels.

(a) In addition to the other requirements in this section, the employer ~~((shall))~~ must ensure that labels for containers of polyvinyl chloride resin waste from reactors or other waste contaminated with vinyl chloride are legible and include the following information:

CONTAMINATED WITH VINYL CHLORIDE MAY CAUSE CANCER

~~(b) ((Prior to June 1, 2015, employers may include the following information on labels of containers of polyvinyl chloride resin waste from reactors or other waste contaminated with vinyl chloride in lieu of the labeling requirements in (a) of this subsection:~~

~~CONTAMINATED WITH VINYL CHLORIDE  
CANCER-SUSPECT AGENT~~

~~(c) Prior to June 1, 2015, employers may include the following information for containers of polyvinyl chloride in lieu of the labeling requirements in subsection (11)(b) of this section:~~

~~POLYVINYL CHLORIDE (OR TRADE NAME) CONTAINS VINYL-  
CHLORIDE VINYL CHLORIDE IS A CANCER-SUSPECT AGENT~~

~~(d) Containers of vinyl chloride shall be legibly labeled either:~~

~~(i) Prior to June 1, 2015, employers may include either the following information in either subsection (13)(d)(i) or (ii) of this section on containers of vinyl chloride in lieu of the labeling requirements in subsection (11)(b) of this section:~~

~~VINYL CHLORIDE EXTREMELY FLAMMABLE GAS UNDER PRESSURE CANCER-SUSPECT AGENT~~

~~(or)~~

~~(ii) In accordance with 49 C.F.R. Parts 170-189, with the additional legend applied near the label or placard:~~

~~CANCER-SUSPECT AGENT~~

~~(e)) No statement shall appear on or near any required sign, label, or instruction which contradicts or detracts from the effect of any required warning, information, or instruction.~~

(14) Records.

(a) All records maintained in accordance with this section ~~((shall))~~ must include the name and Social Security number of each employee where relevant.

(b) Records of required monitoring and measuring and medical records ~~((shall))~~ must be provided upon request to employees, designated representatives, and the director in accordance with chapter 296-802 WAC. These records ~~((shall))~~ must be provided upon request to the director. Authorized personnel rosters ~~((shall))~~ must also be provided upon request to the director.

(i) Monitoring and measuring records ~~((shall))~~ must:

(A) State the date of such monitoring and measuring and the concentrations determined and identify the instruments and methods used;

(B) Include any additional information necessary to determine individual employee exposures where such exposures are determined by means other than individual monitoring of employees; and

(C) Be maintained for not less than 30 years.

(ii) Medical records ~~((shall))~~ must be maintained for the duration of the employment of each employee plus 20 years, or 30 years, whichever is longer.

(c) The employer ~~((shall))~~ must comply with any additional requirements set forth in chapter 296-802 WAC.

(d) Employees or their designated representatives ~~((shall))~~ must be provided access to examine and copy records of required monitoring and measuring.

(e) Former employees ~~((shall))~~ must be provided access to examine and copy required monitoring and measuring records reflecting their own exposures.

(f) Upon written request of any employee, a copy of the medical record of that employee ~~((shall))~~ must be furnished to any physician designated by the employee.

(15) Reports.

(a) Not later than 1 month after the establishment of a regulated area, the following information ~~((shall))~~ must be reported to the director. Any changes to such information ~~((shall))~~ must be reported within fifteen days.

(i) The address and location of each establishment which has one or more regulated areas; and

(ii) The number of employees in each regulated area during normal operations, including maintenance.

(b) Emergencies and the facts obtainable at that time, ~~((shall))~~ must be reported within twenty-four hours to the director. Upon request of the director, the employer ~~((shall))~~ must submit additional information in writing relevant to the nature and extent of employee exposures and measures taken to prevent future emergencies of similar nature.

(c) Within ten working days following any monitoring and measuring which discloses that any employee has been exposed, without regard to the use of respirators, in excess of the permissible exposure limit, each such employee ~~((shall))~~ must be notified in writing of the results of the exposure measurement and the steps being taken to reduce the exposure to within the permissible exposure limit.

(16) Appendix A supplementary medical information.

When required tests under subsection (10)(a) of this section show abnormalities, the tests should be repeated as soon as practicable, preferably within three to four weeks. If tests

remain abnormal, consideration should be given to withdrawal of the employee from contact with vinyl chloride, while a more comprehensive examination is made.

Additional tests which may be useful:

(a) For kidney dysfunction: Urine examination for albumin, red blood cells, and exfoliative abnormal cells.

(b) Pulmonary system: Forced vital capacity, forced expiratory volume at one second, and chest roentgenogram (posterior-anterior, 14 x 17 inches).

(c) Additional serum tests: Lactic acid dehydrogenase, lactic acid dehydrogenase isoenzyme, protein determination, and protein electrophoresis.

(d) For a more comprehensive examination on repeated abnormal serum tests: Hepatitis B antigen, and liver scanning.

**AMENDATORY SECTION** (Amending WSR 14-07-086, filed 3/18/14, effective 5/1/14)

**WAC 296-62-07336 Acrylonitrile.** (1) Scope and application.

(a) This section applies to all occupational exposure to acrylonitrile (AN), Chemical Abstracts Service Registry No. 000107131, except as provided in (b) and (c) of this subsection.

(b) This section does not apply to exposures which result solely from the processing, use, and handling of the following materials:

(i) ABS resins, SAN resins, nitrile barrier resins, solid nitrile elastomers, and acrylic and modacrylic fibers, when these listed materials are in the form of finished polymers, and products fabricated from such finished polymers;

(ii) Materials made from and/or containing AN for which objective data is reasonably relied upon to demonstrate that the material is not capable of releasing AN in airborne concentrations in excess of 1 ppm as an eight-hour time-weighted average, under the expected conditions of processing, use, and handling which will cause the greatest possible release; and

(iii) Solid materials made from and/or containing AN which will not be heated above 170°F during handling, use, or processing.

(c) An employer relying upon exemption under (1)(b)(ii) (~~shall~~) must maintain records of the objective data supporting that exemption, and of the basis of the employer's reliance on the data as provided in subsection (17) of this section.

(2) Definitions, as applicable to this section:

(a) (~~("Acrylonitrile" or "AN"---)~~) **Acrylonitrile or AN.** Acrylonitrile monomer, chemical formula CH<sub>2</sub>=CHCN.

(b) (~~("Action level"---)~~) **Action level.** A concentration of AN of 1 ppm as an eight-hour time-weighted average.

(c) (~~("Authorized person"---)~~) **Authorized person.** Any person specifically authorized by the employer whose duties require the person to enter a regulated area, or any person entering such an area as a designated representative of employees for the purpose of exercising the opportunity to observe monitoring procedures under subsection (18) of this section.

(d) (~~("Decontamination" means)~~) **Decontamination.** Treatment of materials and surfaces by water washdown,

ventilation, or other means, to (~~(assure)~~) ensure that the materials will not expose employees to airborne concentrations of AN above 1 ppm as an eight-hour time-weighted average.

(e) (~~("Director"---)~~) **Director.** The director of labor and industries, or (~~(his)~~) their authorized representative.

(f) (~~("Emergency"---)~~) **Emergency.** Any occurrence such as, but not limited to, equipment failure, rupture of containers, or failure of control equipment, which is likely to, or does, result in unexpected exposure to AN in excess of the ceiling limit.

(g) (~~("Liquid AN" means)~~) **Liquid AN.** AN monomer in liquid form, and liquid or semiliquid polymer intermediates, including slurries, suspensions, emulsions, and solutions, produced during the polymerization of AN.

(h) (~~("Polyacrylonitrile" or "PAN"---)~~) **Polyacrylonitrile or PAN.** Polyacrylonitrile homopolymers or copolymers, except for materials as exempted under subsection (1)(b) of this section.

(3) Permissible exposure limits.

(a) Inhalation.

(i) Time-weighted average limit (TWA). The employer (~~shall assure~~) must ensure that no employee is exposed to an airborne concentration of acrylonitrile in excess of two parts acrylonitrile per million parts of air (2 ppm), as an eight-hour time-weighted average.

(ii) Ceiling limit. The employer (~~shall assure~~) must ensure that no employee is exposed to an airborne concentration of acrylonitrile in excess of 10 ppm as averaged over any fifteen-minute period during the working day.

(b) Dermal and eye exposure. The employer (~~shall assure~~) must ensure that no employee is exposed to skin contact or eye contact with liquid AN or PAN.

(4) Notification of use and emergencies.

(a) Use. Within ten days of the effective date of this standard, or within fifteen days following the introduction of AN into the workplace, every employer (~~shall~~) must report, unless he has done so pursuant to the emergency temporary standard, the following information to the director for each such workplace:

(i) The address and location of each workplace in which AN is present;

(ii) A brief description of each process of operation which may result in employee exposure to AN;

(iii) The number of employees engaged in each process or operation who may be exposed to AN and an estimate of the frequency and degree of exposure that occurs; and

(iv) A brief description of the employer's safety and health program as it relates to limitation of employee exposure to AN. Whenever there has been a significant change in the information required by this subsection, the employer (~~shall~~) must promptly amend such information previously provided to the director.

(b) Emergencies and remedial action. Emergencies, and the facts obtainable at that time, (~~shall~~) must be reported within twenty-four hours of the initial occurrence to the director. Upon request of the director, the employer (~~shall~~) must submit additional information in writing relevant to the nature and extent of employee exposures and measures taken to prevent future emergencies of a similar nature.

## (5) Exposure monitoring.

## (a) General.

(i) Determinations of airborne exposure levels ~~((shall))~~ must be made from air samples that are representative of each employee's exposure to AN over an eight-hour period.

(ii) For the purposes of this section, employee exposure is that which would occur if the employee were not using a respirator.

(b) Initial monitoring. Each employer who has a place of employment in which AN is present ~~((shall))~~ must monitor each such workplace and work operation to accurately determine the airborne concentrations of AN to which employees may be exposed. Such monitoring may be done on a representative basis, provided that the employer can demonstrate that the determinations are representative of employee exposures.

## (c) Frequency.

(i) If the monitoring required by this section reveals employee exposure to be below the action level, the employer may discontinue monitoring for that employee. The employer ~~((shall))~~ must continue these quarterly measurements until at least two consecutive measurements taken at least seven days apart, are below the action level, and thereafter the employer may discontinue monitoring for that employee.

(ii) If the monitoring required by this section reveals employee exposure to be at or above the action level but below the permissible exposure limits, the employer ~~((shall))~~ must repeat such monitoring for each such employee at least quarterly.

(iii) If the monitoring required by this section reveals employee exposure to be in excess of the permissible exposure limits, the employer ~~((shall))~~ must repeat these determinations for each such employee at least monthly. The employer ~~((shall))~~ must continue these monthly measurements until at least two consecutive measurements, taken at least seven days apart, are below the permissible exposure limits, and thereafter the employer ~~((shall))~~ must monitor at least quarterly.

(d) Additional monitoring. Whenever there has been a production, process, control or personnel change which may result in new or additional exposure to AN, or whenever the employer has any other reason to suspect a change which may result in new or additional exposures to AN, additional monitoring which complies with this subsection ~~((shall))~~ must be conducted.

## (e) Employee notification.

(i) Within five working days after the receipt of monitoring results, the employer ~~((shall))~~ must notify each employee in writing of the results which represent that employee's exposure.

(ii) Whenever the results indicate that the representative employee exposure exceeds the permissible exposure limits, the employer ~~((shall))~~ must include in the written notice a statement that the permissible exposure limits were exceeded and a description of the corrective action being taken to reduce exposure to or below the permissible exposure limits.

(f) Accuracy of measurement. The method of measurement of employee exposures ~~((shall))~~ must be accurate, to a confidence level of ninety-five percent, to within plus or minus twenty-five percent for concentrations of AN at or

above the permissible exposure limits, and plus or minus thirty-five percent for concentrations of AN between the action level and the permissible exposure limits.

(g) Weekly survey of operations involving liquid AN. In addition to monitoring of employee exposures to AN as otherwise required by this subsection, the employer ~~((shall))~~ must survey areas of operations involving liquid AN at least weekly to detect points where AN liquid or vapor are being released into the workplace. The survey ~~((shall))~~ must employ an infra-red gas analyzer calibrated for AN, a multi-point gas chromatographic monitor, or comparable system for detection of AN. A listing of levels detected and areas of AN release, as determined from the survey, ~~((shall))~~ must be posted prominently in the workplace, and ~~((shall))~~ must remain posted until the next survey is completed.

## (6) Regulated areas.

(a) The employer ~~((shall))~~ must establish regulated areas where AN concentrations are in excess of the permissible exposure limits.

(b) Regulated areas ~~((shall))~~ must be demarcated and segregated from the rest of the workplace, in any manner that minimizes the number of persons who will be exposed to AN.

(c) Access to regulated areas ~~((shall))~~ must be limited to authorized persons or to persons otherwise authorized by the act or regulations issued pursuant thereto.

(d) The employer ~~((shall assure))~~ must ensure that in the regulated area, food or beverages are not present or consumed, smoking products are not present or used, and cosmetics are not applied, (except that these activities may be conducted in the lunchrooms, change rooms and showers required under subsection (13)(a) through (c) of this section.

## (7) Methods of compliance.

## (a) Engineering and work practice controls.

(i) The employer ~~((shall))~~ must institute engineering or work practice controls to reduce and maintain employee exposures to AN, to or below the permissible exposure limits, except to the extent that the employer establishes that such controls are not feasible.

(ii) Wherever the engineering and work practice controls which can be instituted are not sufficient to reduce employee exposures to or below the permissible exposure limits, the employer ~~((shall))~~ must nonetheless use them to reduce exposures to the lowest levels achievable by these controls and ~~((shall))~~ must supplement them by the use of respiratory protection which complies with the requirements of subsection (8) of this section.

## (b) Compliance program.

(i) The employer ~~((shall))~~ must establish and implement a written program to reduce employee exposures to or below the permissible exposure limits solely by means of engineering and work practice controls, as required by subsection (7)(a) of this section.

(ii) Written plans for these compliance programs ~~((shall))~~ must include at least the following:

(A) A description of each operation or process resulting in employee exposure to AN above the permissible exposure limits;

(B) Engineering plans and other studies used to determine the controls for each process;

(C) A report of the technology considered in meeting the permissible exposure limits;

(D) A detailed schedule for the implementation of engineering or work practice controls; and

(E) Other relevant information.

(ii) The employer ~~((shall))~~ must complete the steps set forth in the compliance program by the dates in the schedule.

(iv) Written plans for such a program ~~((shall))~~ must be submitted upon request to the director, and ~~((shall))~~ must be available at the worksite for examination and copying by the director, or any affected employee or representative.

(v) The plans required by this subsection ~~((shall))~~ must be revised and updated at least every six months to reflect the current status of the program.

(8) Respiratory protection.

(a) General. For employees who use respirators required by this section, the employer must provide each employee an appropriate respirator that complies with the requirements of this subsection. Respirators must be used during:

(i) Periods necessary to install or implement feasible engineering and work-practice controls;

(ii) Work operations, such as maintenance and repair activities or reactor cleaning, for which the employer establishes that engineering and work-practice controls are not feasible;

(iii) Work operations for which feasible engineering and work-practice controls are not yet sufficient to reduce employee exposure to or below the permissible exposure limits;

(iv) In emergencies.

(b) Respirator program.

Employers must develop, implement and maintain a respiratory protection program in accordance with chapter 296-842 WAC, Respirators, which covers each employee required by this chapter to use a respirator.

(c) Respirator selection. The employer must:

(i) Select and provide to employees appropriate respirators by following the requirements in this section and WAC 296-842-13005 in the respirator rule.

(ii) Provide to employees, for escape, any organic vapor, air-purifying respirator or any self-contained breathing apparatus (SCBA) that meets the selection requirements of WAC 296-842-13005 in the respirator rule.

(9) Emergency situations.

(a) Written plans.

(i) A written plan for emergency situations ~~((shall))~~ must be developed for each workplace where AN is present. Appropriate portions of the plan ~~((shall))~~ must be implemented in the event of an emergency.

(ii) The plan ~~((shall))~~ must specifically provide that employees engaged in correcting emergency conditions ~~((shall))~~ must be equipped as required in subsection (8) of this section until the emergency is abated.

(b) Alerting employees.

(i) Where there is the possibility of employee exposure to AN in excess of the ceiling limit due to the occurrence of an emergency, a general alarm ~~((shall))~~ must be installed and maintained to promptly alert employees of such occurrences.

(ii) Employees not engaged in correcting the emergency ~~((shall))~~ must be evacuated from the area and ~~((shall))~~ must not be permitted to return until the emergency is abated.

(10) Protective clothing and equipment.

(a) Provision and use. Where eye or skin contact with liquid AN or PAN may occur, the employer ~~((shall))~~ must provide at no cost to the employee, and ~~((assure))~~ ensure that employees wear, appropriate protective clothing or other equipment in accordance with WAC 296-800-160 to protect any area of the body which may come in contact with liquid AN or PAN.

(b) Cleaning and replacement.

(i) The employer ~~((shall))~~ must clean, launder, maintain, or replace protective clothing and equipment required by this subsection, as needed to maintain their effectiveness. In addition, the employer ~~((shall))~~ must provide clean protective clothing and equipment at least weekly to each affected employee.

(ii) The employer ~~((shall-assure))~~ must ensure that impermeable protective clothing which contacts or is likely to have contacted liquid AN ~~((shall))~~ must be decontaminated before being removed by the employee.

(iii) The employer ~~((shall-assure))~~ must ensure that AN- or PAN-contaminated protective clothing and equipment is placed and stored in closable containers which prevent dispersion of the AN or PAN outside the container.

(iv) The employer ~~((shall-assure))~~ must ensure that an employee whose nonimpermeable clothing becomes wetted with liquid AN ~~((shall))~~ must immediately remove that clothing and proceed to shower. The clothing ~~((shall))~~ must be decontaminated before it is removed from the regulated area.

(v) The employer ~~((shall-assure))~~ must ensure that no employee removes AN- or PAN-contaminated protective equipment or clothing from the change room, except for those employees authorized to do so for the purpose of laundering, maintenance, or disposal.

(vi) The employer ~~((shall))~~ must inform any person who launders or cleans AN- or PAN-contaminated protective clothing or equipment of the potentially harmful effects of exposure to AN.

(vii) The employer ~~((shall-assure))~~ must ensure that containers of contaminated protective clothing and equipment which are to be removed from the workplace for any reason are labeled in accordance with subsection (16)(c)(ii) of this section, and that such labels remain affixed when such containers leave the employer's workplace.

(11) Housekeeping.

(a) All surfaces ~~((shall))~~ must be maintained free of accumulations of liquid AN and of PAN.

(b) For operations involving liquid AN, the employer ~~((shall))~~ must institute a program for detecting leaks and spills of liquid AN, including regular visual inspections.

(c) Where spills of liquid AN are detected, the employer ~~((shall-assure))~~ must ensure that surfaces contacted by the liquid AN are decontaminated. Employees not engaged in decontamination activities ~~((shall))~~ must leave the area of the spill, and shall not be permitted in the area until decontamination is completed.

(d) Liquids. Where AN is present in a liquid form, or as a resultant vapor, all containers or vessels containing AN

((shall)) must be enclosed to the maximum extent feasible and tightly covered when not in use, with adequate provision made to avoid any resulting potential explosion hazard.

(e) Surfaces.

(i) Dry sweeping and the use of compressed air for the cleaning of floors and other surfaces where AN and PAN are found is prohibited.

(ii) Where vacuuming methods are selected, either portable units or a permanent system may be used.

(A) If a portable unit is selected, the exhaust ((shall)) must be attached to the general workplace exhaust ventilation system or collected within the vacuum unit, equipped with high efficiency filters or other appropriate means of contaminant removal, so that AN is not reintroduced into the workplace air; and

(B) Portable vacuum units used to collect AN may not be used for other cleaning purposes and ((shall)) must be labeled as prescribed by subsection (16)(c)(ii) of this section.

(iii) Cleaning of floors and other contaminated surfaces may not be performed by washing down with a hose, unless a fine spray has first been laid down.

(12) Waste disposal. AN and PAN waste, scrap, debris, bags, containers or equipment, ((shall)) must be disposed of in sealed bags or other closed containers which prevent dispersion of AN outside the container, and labeled as prescribed in subsection (16)(c)(ii) of this section.

(13) Hygiene facilities and practices. Where employees are exposed to airborne concentrations of AN above the permissible exposure limits, or where employees are required to wear protective clothing or equipment pursuant to subsection (11) of this section, or where otherwise found to be appropriate, the facilities required by WAC 296-800-230 ((shall)) must be provided by the employer for the use of those employees, and the employer ((shall-assure)) must ensure that the employees use the facilities provided. In addition, the following facilities or requirements are mandated.

(a) Change rooms. The employer ((shall)) must provide clean change rooms in accordance with WAC 296-800-230.

(b) Showers.

(i) The employer ((shall)) must provide shower facilities in accordance with WAC 296-800-230.

(ii) In addition, the employer ((shall)) must also ((assure)) ensure that employees exposed to liquid AN and PAN shower at the end of the work shift.

(iii) The employer ((shall-assure)) must ensure that, in the event of skin or eye exposure to liquid AN, the affected employee ((shall)) must shower immediately to minimize the danger of skin absorption.

(c) Lunchrooms.

(i) Whenever food or beverages are consumed in the workplace, the employer ((shall)) must provide lunchroom facilities which have a temperature controlled, positive pressure, filtered air supply, and which are readily accessible to employees exposed to AN above the permissible exposure limits.

(ii) In addition, the employer ((shall)) must also ((assure)) ensure that employees exposed to AN above the permissible exposure limits wash their hands and face prior to eating.

(14) Medical surveillance.

(a) General.

(i) The employer ((shall)) must institute a program of medical surveillance for each employee who is or will be exposed to AN above the action level. The employer ((shall)) must provide each such employee with an opportunity for medical examinations and tests in accordance with this subsection.

(ii) The employer ((shall-assure)) must ensure that all medical examinations and procedures are performed by or under the supervision of a licensed physician, and ((shall)) must be provided without cost to the employee.

(b) Initial examinations. At the time of initial assignment, or upon institution of the medical surveillance program, the employer ((shall)) must provide each affected employee an opportunity for a medical examination, including at least the following elements:

(i) A work history and medical history with special attention to skin, respiratory, and gastrointestinal systems, and those nonspecific symptoms, such as headache, nausea, vomiting, dizziness, weakness, or other central nervous system dysfunctions that may be associated with acute or chronic exposure to AN.

(ii) A physical examination giving particular attention to central nervous system, gastrointestinal system, respiratory system, skin and thyroid.

(iii) A 14" x 17" posteroanterior chest X-ray.

(iv) Further tests of the intestinal tract, including fecal occult blood screening, and proctosigmoidoscopy, for all workers forty years of age or older, and for any other affected employees for whom, in the opinion of the physician, such testing is appropriate.

(c) Periodic examinations.

(i) The employer ((shall)) must provide examinations specified in this subsection at least annually for all employees specified in subsection (14)(a) of this section.

(ii) If an employee has not had the examinations prescribed in subsection (14)(b) of this section within six months of termination of employment, the employer ((shall)) must make such examination available to the employee upon such termination.

(d) Additional examinations. If the employee for any reason develops signs or symptoms commonly associated with exposure to AN, the employer ((shall)) must provide appropriate examination and emergency medical treatment.

(e) Information provided to the physician. The employer ((shall)) must provide the following information to the examining physician:

(i) A copy of this standard and its appendices;

(ii) A description of the affected employee's duties as they relate to the employee's exposure;

(iii) The employee's representative exposure level;

(iv) The employee's anticipated or estimated exposure level (for preplacement examinations or in cases of exposure due to an emergency);

(v) A description of any personal protective equipment used or to be used; and

(vi) Information from previous medical examinations of the affected employee, which is not otherwise available to the examining physician.

(f) Physician's written opinion.

(i) The employer ((~~shall~~)) must obtain a written opinion from the examining physician which ((~~shall~~)) must include:

(A) The results of the medical examination and test performed;

(B) The physician's opinion as to whether the employee has any detected medical condition which would place the employee at an increased risk of material impairment of the employee's health from exposure to AN;

(C) Any recommended limitations upon the employee's exposure to AN or upon the use of protective clothing and equipment such as respirators; and

(D) A statement that the employee has been informed by the physician of the results of the medical examination and any medical conditions which require further examination or treatment.

(ii) The employer ((~~shall~~)) must instruct the physician not to reveal in the written opinion specific findings or diagnoses unrelated to occupational exposure to AN.

(iii) The employer ((~~shall~~)) must provide a copy of the written opinion to the affected employee.

(15) Employee information and training.

(a) Training program.

(i) The employer ((~~shall~~)) must train each employee exposed to AN above the action level, each employee whose exposures are maintained below the action level by engineering and work practice controls, and each employee subject to potential skin or eye contact with liquid AN in accordance with the requirements of this section. The employer ((~~shall~~)) must institute a training program and ensure employee participation in the training program.

(ii) The training program ((~~shall~~)) must be provided at the time of initial assignment, or upon institution of the training program, and at least annually thereafter, and the employer ((~~shall assure~~)) must ensure that each employee is informed of the following:

(A) The information contained in Appendices A, B and C;

(B) The quantity, location, manner of use, release or storage of AN and the specific nature of operations which could result in exposure to AN, as well as any necessary protective steps;

(C) The purpose, proper use, and limitations of respirators and protective clothing;

(D) The purpose and a description of the medical surveillance program required by subsection (14) of this section;

(E) The emergency procedures developed, as required by subsection (9) of this section; and

(F) The engineering and work practice controls, their function and the employee's relationship thereto; and

(G) A review of this standard.

(b) Access to training materials.

(i) The employer ((~~shall~~)) must make a copy of this standard and its appendices readily available to all affected employees.

(ii) The employer ((~~shall~~)) must provide, upon request, all materials relating to the employee information and training program to the director.

(16) Communication of hazards.

(a) Hazard communication - General.

(i) Chemical manufacturers, importers, distributors and employers ((~~shall~~)) must comply with all requirements of the Hazard Communication Standard (HCS), WAC 296-901-140 for AN and AN-based materials not exempted under subsection (1)(b) of this section.

(ii) In classifying the hazards of AN and AN-based materials at least the following hazards are to be addressed: Cancer; central nervous system effects; liver effects; skin sensitization; skin, respiratory, and eye irritation; acute toxicity effects; and flammability.

(iii) Employers ((~~shall~~)) must include AN and AN-based materials in the hazard communication program established to comply with the HCS, WAC 296-901-140. Employers ((~~shall~~)) must ensure that each employee has access to labels on containers of AN and AN-based materials and to safety data sheets, and is trained in accordance with the requirements of HCS and subsection (15) of this section.

(iv) The employer may use labels or signs required by other statutes, regulations, or ordinances in addition to, or in combination with, signs and labels required by this subsection.

(v) The employer ((~~shall~~)) must ensure that no statement appears on or near any sign or label, required by this subsection, that contradicts or detracts from the required sign or label.

(b) Signs.

(i) The employer ((~~shall~~)) must post signs to clearly indicate all workplaces where AN concentrations exceed the permissible exposure limits. The signs ((~~shall~~)) must bear the following legend:

DANGER  
ACRYLONITRILE (AN)  
MAY CAUSE CANCER  
RESPIRATORY PROTECTION MAY BE REQUIRED IN THIS AREA  
AUTHORIZED PERSONNEL ONLY

(ii) The employer ((~~shall~~)) must ensure that signs required by (b) of this subsection are illuminated and cleaned as necessary so that the legend is readily visible.

~~((iii) Prior to June 1, 2016, employers may use the following legend in lieu of that specified in (b)(i) of this subsection:~~

DANGER  
ACRYLONITRILE (AN)  
CANCER HAZARD  
AUTHORIZED PERSONNEL ONLY  
RESPIRATORS MAY BE REQUIRED))

(c) Labels.

(i) The employer ((~~shall~~)) must ensure that precautionary labels are in compliance with (a)(i) of this subsection and are affixed to all containers of liquid AN and AN-based materials not exempted under subsection (1)(b) of this section. The employer ((~~shall~~)) must ensure that the labels remain affixed when the materials are sold, distributed or otherwise leave the employer's workplace.

~~(ii) ((Prior to June 1, 2015, employers may include the following information on precautionary labels required by this subsection in lieu of the labeling requirements in (b)(i) of this subsection:~~

DANGER  
CONTAINS ACRYLONITRILE (AN)  
CANCER HAZARD

(iii)) The employer ((~~shall~~)) must ensure that the precautionary labels required by (c) of this subsection are readily visible and legible.

(17) Recordkeeping.

(a) Objective data for exempted operations.

(i) Where the processing, use, and handling of products fabricated from PAN are exempted pursuant to subsection (1)(b) of this section, the employer ((~~shall~~)) must establish and maintain an accurate record of objective data reasonably relied upon in support of the exemption.

(ii) This record ((~~shall~~)) must include the following information:

(A) The relevant condition in subsection (1)(b) upon which exemption is based;

(B) The source of the objective data;

(C) The testing protocol, results of testing, and/or analysis of the material for the release of AN;

(D) A description of the operation exempted and how the data supports the exemption; and

(E) Other data relevant to the operations, materials, and processing covered by the exemption.

(iii) The employer ((~~shall~~)) must maintain this record for the duration of the employer's reliance upon such objective data.

(b) Exposure monitoring.

(i) The employer ((~~shall~~)) must establish and maintain an accurate record of all monitoring required by subsection (5) of this section.

(ii) This record ((~~shall~~)) must include:

(A) The dates, number, duration, and results of each of the samples taken, including a description of the sampling procedure used to determine representative employee exposure;

(B) A description of the sampling and analytical methods used and the data relied upon to establish that the methods used meet the accuracy and precision requirements of subsection (5)(f) of this section;

(C) Type of respiratory protective devices worn, if any; and

(D) Name, Social Security number and job classification of the employee monitored and of all other employees whose exposure the measurement is intended to represent.

(iii) The employer ((~~shall~~)) must maintain this record for at least ((~~40~~)) forty years or the duration of employment plus ((~~20~~)) twenty years, whichever is longer.

(c) Medical surveillance.

(i) The employer ((~~shall~~)) must establish and maintain an accurate record for each employee subject to medical surveillance as required by subsection (14) of this section.

(ii) This record ((~~shall~~)) must include:

(A) A copy of the physicians' written opinions;

(B) Any employee medical complaints related to exposure to AN;

(C) A copy of the information provided to the physician as required by subsection (14)(f) of this section; and

(D) A copy of the employee's medical and work history.

(ii) The employer ((~~shall assure~~)) must ensure that this record be maintained for at least forty years or for the duration of employment plus twenty years, whichever is longer.

(d) Availability.

(i) The employer ((~~shall assure~~)) must ensure that all records required to be maintained by this section be made available upon request to the director for examination and copying.

(ii) Records required by (a) through (c) of this subsection ((~~shall~~)) must be provided upon request to employees, designated representatives, and the assistant director in accordance with chapter 296-802 WAC. Records required by (a) of this subsection ((~~shall~~)) must be provided in the same manner as exposure monitoring records.

(iii) The employer ((~~shall assure~~)) must ensure that employee medical records required to be maintained by this section, be made available, upon request, for examination and copying, to the affected employee or former employee, or to a physician designated by the affected employee, former employee, or designated representative.

(e) Transfer of records.

(i) Whenever the employer ceases to do business, the successor employer ((~~shall~~)) must receive and retain all records required to be maintained by this section.

(ii) The employer ((~~shall~~)) must also comply with any additional requirements involving transfer of records set forth in WAC 296-802-60005.

(18) Observation of monitoring.

(a) Employee observation. The employer ((~~shall~~)) must provide affected employees, or their designated representatives, an opportunity to observe any monitoring of employee exposure to AN conducted pursuant to subsection (5) of this section.

(b) Observation procedures.

(i) Whenever observation of the monitoring of employee exposure to AN requires entry into an area where the use of protective clothing or equipment is required, the employer ((~~shall~~)) must provide the observer with personal protective clothing or equipment required to be worn by employees working in the area, ((~~assure~~)) ensure the use of such clothing and equipment, and require the observer to comply with all other applicable safety and health procedures.

(ii) Without interfering with the monitoring, observers shall be entitled:

(A) To receive an explanation of the measurement procedures;

(B) To observe all steps related to the measurement of airborne concentrations of AN performed at the place of exposure; and

(C) To record the results obtained.

(19) Appendices. The information contained in the appendices is not intended, by itself, to create any additional obligation not otherwise imposed, or to detract from any obligation.

AMENDATORY SECTION (Amending WSR 01-11-038, filed 5/9/01, effective 9/1/01)

**WAC 296-62-07338 Appendix B—Substance technical guidelines for acrylonitrile.** (1) Physical and chemical data.

(a) Substance identification:

(i) Synonyms: AN; VCN; vinyl cyanide; propenenitrile; cyanoethylene; Acrylon; Carbacryl; Fumigrain; Ventox.

(ii) Formula: CH<sub>2</sub>=CHCN.

(iii) Molecular weight: 53.1.

(b) Physical data:

(i) Boiling point (760 mm Hg): 77.3°C (171°F);

(ii) Specific gravity (water = 1): 0.81 (at 20°C or 68°F);

(iii) Vapor density (air = 1 at boiling point of acrylonitrile): 1.83;

(iv) Melting point: -83°C (-117°F);

(v) Vapor pressure (@20°F): 83 mm Hg;

(vi) Solubility in water, percent by weight @20°C (68°F): 7.35;

(vii) Evaporation rate (Butyl Acetate = 1): 4.54; and

(viii) Appearance and odor: Colorless to pale yellow liquid with a pungent odor at concentrations above the permissible exposure level. Any detectable odor of acrylonitrile may indicate overexposure.

(2) Fire, explosion, and reactivity hazard data.

(a) Fire:

(i) Flash point: -1°C (30°F) (closed cup).

(ii) Autoignition temperature: 481°C (898°F).

(iii) Flammable limits air, percent by volume: Lower: 3, Upper: 17.

(iv) Extinguishing media: Alcohol foam, carbon dioxide, and dry chemical.

(v) Special firefighting procedures: Do not use a solid stream of water, since the stream will scatter and spread the fire. Use water to cool containers exposed to a fire.

(vi) Unusual fire and explosion hazards: Acrylonitrile is a flammable liquid. Its vapors can easily form explosive mixtures with air. All ignition sources must be controlled where acrylonitrile is handled, used, or stored in a manner that could create a potential fire or explosion hazard. Acrylonitrile vapors are heavier than air and may travel along the ground and be ignited by open flames or sparks at locations remote from the site at which acrylonitrile is being handled.

(vii) For purposes of compliance with the requirements of WAC 296-800-300, acrylonitrile is classified as a class IB flammable liquid. For example, 7,500 ppm, approximately one-fourth of the lower flammable limit, would be considered to pose a potential fire and explosion hazard.

(viii) For purposes of compliance with WAC ((~~296-24-59207~~) 296-800-300), acrylonitrile is classified as a Class B fire hazard.

(ix) For purpose of compliance with WAC ((~~296-24-95613~~) 296-800-280), locations classified as hazardous due to the presence of acrylonitrile ((~~shaft~~)) must be Class I, Group D.

(b) Reactivity:

(i) Conditions contributing to instability: Acrylonitrile will polymerize when hot, and the additional heat liberated by the polymerization may cause containers to explode. Pure AN may self-polymerize, with a rapid build-up of pressure,

resulting in an explosion hazard. Inhibitors are added to the commercial product to prevent self-polymerization.

(ii) Incompatibilities: Contact with strong oxidizers (especially bromine) and strong bases may cause fires and explosions. Contact with copper, copper alloys, ammonia, and amines may start serious decomposition.

(iii) Hazardous decomposition products: Toxic gases and vapors (such as hydrogen cyanide, oxides of nitrogen, and carbon monoxide) may be released in a fire involving acrylonitrile and certain polymers made from acrylonitrile.

(iv) Special precautions: Liquid acrylonitrile will attack some forms of plastics, rubbers, and coatings.

(3) Spill, leak, and disposal procedures.

(a) If acrylonitrile is spilled or leaked, the following steps should be taken:

(i) Remove all ignition sources.

(ii) The area should be evacuated at once and reentered only after the area has been thoroughly ventilated and washed down with water.

(iii) If liquid acrylonitrile or polymer intermediate, collect for reclamation or absorb in paper, vermiculite, dry sand, earth, or similar material, or wash down with water into process sewer system.

(b) Persons not wearing protective equipment should be restricted from areas of spills or leaks until clean-up has been completed.

(c) Waste disposal methods: Waste materials ((~~shaft~~)) must be disposed of in a manner that is not hazardous to employees or to the general population. Spills of acrylonitrile and flushing of such spills ((~~shaft~~)) must be channeled for appropriate treatment or collection for disposal. They ((~~shaft~~)) must not be channeled directly into the sanitary sewer system. In selecting the method of waste disposal, applicable local, state, and federal regulations should be consulted.

(4) Monitoring and measurement procedures.

(a) Exposure above the permissible exposure limit:

(i) Eight-hour exposure evaluation: Measurements taken for the purpose of determining employee exposure under this section are best taken so that the average eight-hour exposure may be determined from a single eight-hour sample or two four-hour samples. Air samples should be taken in the employee's breathing zone (air that would most nearly represent that inhaled by the employee).

(ii) Ceiling evaluation: Measurements taken for the purpose of determining employee exposure under this section must be taken during periods of maximum expected airborne concentrations of acrylonitrile in the employee's breathing zone. A minimum of three measurements should be taken on one work shift. The average of all measurements taken is an estimate of the employee's ceiling exposure.

(iii) Monitoring techniques: The sampling and analysis under this section may be performed by collecting the acrylonitrile vapor on charcoal adsorption tubes or other composition adsorption tubes, with subsequent chemical analysis. Sampling and analysis may also be performed by instruments such as real-time continuous monitoring systems, portable direct-reading instruments, or passive dosimeters. Analysis of resultant samples should be by gas chromatograph.

(iv) Appendix D lists methods of sampling and analysis which have been tested by NIOSH and OSHA for use with acrylonitrile. NIOSH and OSHA have validated modifications of NIOSH Method S-156 (see Appendix D) under laboratory conditions for concentrations below 1 ppm. The employer has the obligation of selecting a monitoring method which meets the accuracy and precision requirements of the standard under his/her unique field conditions. The standard requires that methods of monitoring must be accurate, to a 95-percent confidence level, to  $\pm 35$ -percent for concentrations of AN at or above 2 ppm, and to  $\pm 50$ -percent for concentrations below 2 ppm. In addition to the methods described in Appendix D, there are numerous other methods available for monitoring for AN in the workplace. Details on these other methods have been submitted by various companies to the rulemaking record, and are available at the OSHA Docket Office.

(b) Since many of the duties relating to employee exposure are dependent on the results of monitoring and measuring procedures, employers (~~shall~~) must ensure that the evaluation of employee exposures is performed by a competent industrial hygienist or other technically qualified person.

(5) Protective clothing.

(a) Employees (~~shall~~) must be provided with and required to wear appropriate protective clothing to prevent any possibility of skin contact with liquid AN. Because acrylonitrile is absorbed through the skin, it is important to prevent skin contact with liquid AN. Protective clothing (~~shall~~) must include impermeable coveralls or similar full-body work clothing, gloves, head-coverings, as appropriate to protect areas of the body which may come in contact with liquid AN.

(b) Employers should ascertain that the protective garments are impermeable to acrylonitrile. Nonimpermeable clothing and shoes should not be allowed to become contaminated with liquid AN. If permeable clothing does become contaminated, it should be promptly removed, placed in a regulated area for removal of the AN, and not worn again until the AN is removed. If leather footwear or other leather garments become wet from acrylonitrile, they should be replaced and not worn again, due to the ability of leather to absorb acrylonitrile and hold it against the skin. Since there is no pain associated with the blistering which may result from skin contact with liquid AN, it is essential that the employee be informed of this hazard so that he or she can be protected.

(c) Any protective clothing which has developed leaks or is otherwise found to be defective (~~shall~~) must be repaired or replaced. Clean protective clothing (~~shall~~) must be provided to the employee as necessary to (~~assure~~) ensure its protectiveness. Whenever impervious clothing becomes wet with liquid AN, it (~~shall~~) must be washed down with water before being removed by the employee. Employees are also required to wear splash-proof safety goggles where there is any possibility of acrylonitrile contacting the eyes.

(6) Housekeeping and hygiene facilities. For purposes of complying with WAC (~~296-24-120,~~) 296-800-220 and 296-800-230, the following items should be emphasized:

(a) The workplace should be kept clean, orderly, and in a sanitary condition. The employer is required to institute a

leak and spill detection program for operations involving liquid AN in order to detect sources of fugitive AN emissions.

(b) Dry sweeping and the use of compressed air is unsafe for the cleaning of floors and other surfaces where liquid AN may be found.

(c) Adequate washing facilities with hot and cold water are to be provided, and maintained in a sanitary condition. Suitable cleansing agents are also to be provided to (~~assure~~) ensure the effective removal of acrylonitrile from the skin.

(d) Change or dressing rooms with individual clothes storage facilities must be provided to prevent the contamination of street clothes with acrylonitrile. Because of the hazardous nature of acrylonitrile, contaminated protective clothing should be placed in a regulated area designated by the employer for removal of the AN before the clothing is laundered or disposed of.

(7) Miscellaneous precautions.

(a) Store acrylonitrile in tightly-closed containers in a cool, well-ventilated area and take necessary precautions to avoid any explosion hazard.

(b) High exposures to acrylonitrile can occur when transferring the liquid from one container to another.

(c) Nonsparking tools must be used to open and close metal acrylonitrile containers. These containers must be effectively grounded and bonded prior to pouring.

(d) Never store uninhibited acrylonitrile.

(e) Acrylonitrile vapors are not inhibited.

They may form polymers and clog vents of storage tanks.

(f) Use of supplied-air suits or other impervious coverings may be necessary to prevent skin contact with and provide respiratory protection from acrylonitrile where the concentration of acrylonitrile is unknown or is above the ceiling limit. Supplied-air suits should be selected, used, and maintained under the immediate supervision of persons knowledgeable in the limitations and potential life-endangering characteristics of supplied-air suits.

(g) Employers (~~shall~~) must advise employees of all areas and operations where exposure to acrylonitrile could occur.

(8) Common operations. Common operations in which exposure to acrylonitrile is likely to occur include the following: Manufacture of the acrylonitrile monomer; synthesis of acrylic fibers, ABS, SAN, and nitrile barrier plastics and resins, nitrile rubber, surface coatings, specialty chemicals; use as a chemical intermediate; use as a fumigant; and in the cyanoethylation of cotton.

**AMENDATORY SECTION** (Amending WSR 88-11-021, filed 5/11/88)

**WAC 296-62-07339 Appendix C—Medical surveillance guidelines for acrylonitrile.** (1) Route of entry.

(a) Inhalation;

(b) Skin absorption;

(c) Ingestion.

(2) Toxicology.

(a) Acrylonitrile vapor is an asphyxiant due to inhibitory action on metabolic enzyme systems. Animals exposed to 75 or 100 ppm for seven hours have shown signs of anoxia; in some animals which died at the higher level, cyanomethemo-

globin was found in the blood. Two human fatalities from accidental poisoning have been reported; one was caused by inhalation of an unknown concentration of the vapor, and the other was thought to be caused by skin absorption or inhalation. Most cases of intoxication from industrial exposure have been mild, with rapid onset of eye irritation, headache, sneezing, and nausea. Weakness, lightheadedness, and vomiting may also occur. Exposure to high concentrations may produce profound weakness, asphyxia, and death. The vapor is a severe eye irritant. Prolonged skin (~~contact~~ contact) with the liquid may result in absorption with systemic effects, and in the formation of large blisters after a latent period of several hours. Although there is usually little or no pain or inflammation, the affected skin resembles a second-degree thermal burn. Solutions spilled on exposed skin, or on areas covered only by a light layer of clothing, evaporate rapidly, leaving no irritation, or, at the most, mild transient redness. Repeated spills on exposed skin may result in dermatitis due to solvent effects.

(b) Results after one year of a planned two-year animal study on the effects of exposure to acrylonitrile have indicated that rats ingesting as little as 35 ppm in their drinking water develop tumors of the central nervous system. The interim results of this study have been supported by a similar study being conducted by the same laboratory, involving exposure of rats by inhalation of acrylonitrile vapor, which has shown similar types of tumors in animals exposed to 80 ppm.

(c) In addition, the preliminary results of an epidemiological study being performed by duPont on a cohort of workers in their Camden, S.C. acrylic fiber plant indicate a statistically significant increase in the incidence of colon and lung cancers among employees exposed to acrylonitrile.

(3) Signs and symptoms of acute overexposure. Asphyxia and death can occur from exposure to high concentrations of acrylonitrile. Symptoms of overexposure include eye irritation, headache, sneezing, nausea and vomiting, weakness, and light-headedness. Prolonged skin contact can cause blisters on the skin with appearance of a second-degree burn, but with little or no pain. Repeated skin contact may produce scaling dermatitis.

(4) Treatment of acute overexposure. Remove employee from exposure. Immediately flush eyes with water and wash skin with soap or mild detergent and water. If AN has been swallowed, and person is conscious, induce vomiting. Give artificial respiration if indicated. More severe cases, such as those associated with loss of consciousness, may be treated by the intravenous administration of sodium nitrite, followed by sodium thiosulfate, although this is not as effective for acrylonitrile poisoning as for inorganic cyanide poisoning.

(5) Surveillance and preventive considerations.

(a) As noted above, exposure to acrylonitrile has been linked to increased incidence of cancers of the colon and lung in employees of the duPont acrylic fiber plant in Camden, S.C. In addition, the animal testing of acrylonitrile has resulted in the development of cancers of the central nervous system in rats exposed by either inhalation or ingestion. The physician should be aware of the findings of these studies in evaluating the health of employees exposed to acrylonitrile.

(b) Most reported acute effects of occupational exposure to acrylonitrile are due to its ability to cause tissue anoxia and asphyxia. The effects are similar to those caused by hydrogen cyanide. Liquid acrylonitrile can be absorbed through the skin upon prolonged contact. The liquid readily penetrates leather, and will produce burns of the feet if footwear contaminated with acrylonitrile is not removed.

(c) It is important for the physician to become familiar with the operating conditions in which exposure to acrylonitrile may occur. Those employees with skin diseases may not tolerate the wearing of whatever protective clothing may be necessary to protect them from exposure. In addition, those with chronic respiratory disease may not tolerate the wearing of negative-pressure respirators.

(d) Surveillance and screening. Medical histories and laboratory examinations are required for each employee subject to exposure to acrylonitrile above the action level. The employer must screen employees for history of certain medical conditions which might place the employee at increased risk from exposure.

(i) Central nervous system dysfunction. Acute effects of exposure to acrylonitrile generally involve the central nervous system. Symptoms of acrylonitrile exposure include headache, nausea, dizziness, and general weakness. The animal studies cited above suggest possible carcinogenic effects of acrylonitrile on the central nervous system, since rats exposed by either inhalation or ingestion have developed similar CNS tumors.

(ii) Respiratory disease. The duPont data indicate an increased risk of lung cancer among employees exposed to acrylonitrile.

(iii) Gastrointestinal disease. The duPont data indicate an increased risk of cancer of the colon among employees exposed to acrylonitrile. In addition, the animal studies show possible tumor production in the stomachs of the rats in the ingestion study.

(iv) Skin disease. Acrylonitrile can cause skin burns when prolonged skin contact with the liquid occurs. In addition, repeated skin contact with the liquid can cause dermatitis.

(e) General. The purpose of the medical procedures outlined in the standard is to establish a baseline for future health monitoring. Persons unusually susceptible to the effects of anoxia or those with anemia would be expected to be at increased risk. In addition to emphasis on the CNS, respiratory and gastro-intestinal systems, the cardiovascular system, liver, and kidney function should also be stressed.

AMENDATORY SECTION (Amending WSR 88-11-021, filed 5/11/88)

**WAC 296-62-07340 Appendix D—Sampling and analytical methods for acrylonitrile.** (1) There are many methods available for monitoring employee exposures to acrylonitrile. Most of these involve the use of charcoal tubes and sampling pumps, with analysis by gas chromatograph. The essential differences between the charcoal tube methods include, among others, the use of different desorbing solvents, the use of different lots of charcoal, and the use of different equipment for analysis of the samples.

(2) Besides charcoal, considerable work has been performed on methods using porous polymer sampling tubes and passive dosimeters. In addition, there are several portable gas analyzers and monitoring units available on the open market.

(3) This appendix contains details for the methods which have been tested at OSHA Analytical Laboratory in Salt Lake City, and NIOSH in Cincinnati. Each is a variation on NIOSH Method S-156, which is also included for reference. This does not indicate that these methods are the only ones which will be satisfactory. There also may be workplace situations in which these methods are not adequate, due to such factors as high humidity. Copies of the other methods available to OSHA are available in the rulemaking record, and may be obtained from the OSHA docket office. These include, the Union Carbide, Monsanto, Dow Chemical and Dow Badische methods, as well as NIOSH Method P & CAM 127.

(4) Employers who note problems with sample breakthrough should try larger charcoal tubes. Tubes of larger capacity are available, and are often used for sampling vinyl chloride. In addition, lower flow rates and shorter sampling times should be beneficial in minimizing breakthrough problems.

(5) Whatever method the employer chooses, (~~he must assure himself~~) they must be ensured of the method's accuracy and precision under the unique conditions present in (~~his~~) their workplace.

(6) NIOSH Method S-156 (unmodified)

Analyte: Acrylonitrile.

Matrix: Air.

Procedure: Absorption on charcoal, desorption with methanol, GC.

(a) Principle of the method. Reference (k)(i) of this subsection.

(i) A known volume of air is drawn through a charcoal tube to trap the organic vapors present.

(ii) The charcoal in the tube is transferred to a small, stoppered sample container, and the analyte is desorbed with methanol.

(iii) An aliquot of the desorbed sample is injected into a gas chromatograph.

(iv) The area of the resulting peak is determined and compared with areas obtained for standards.

(b) Range and sensitivity.

(i) This method was validated over the range of 17.5-70.0 mg/cu m at an atmospheric temperature and pressure of 22°C and 760 mm Hg, using a twenty-liter sample. Under the conditions of sample size (20 liters) the probable useful range of this method is 4.5-135 mg/cu m. The method is capable of measuring much smaller amounts if the desorption efficiency is adequate. Desorption efficiency must be determined over the range used.

(ii) The upper limit of the range of the method is dependent on the adsorptive capacity of the charcoal tube. This capacity varies with the concentrations of acrylonitrile and other substances in the air. The first section of the charcoal tube was found to hold at least 3.97 mg of acrylonitrile when a test atmosphere containing 92.0 mg/cu m of acrylonitrile in air was sampled 0.18 liter per minute for 240 minutes; at that time the concentration of acrylonitrile in the effluent was less

than 5 percent of that in the influent. (The charcoal tube consists of two sections of activated charcoal separated by a section of urethane foam. See (f)(ii) of this subsection. If a particular atmosphere is suspected of containing a large amount of contaminant, a smaller sampling volume should be taken.)

(c) Interference.

(i) When the amount of water in the air is so great that condensation actually occurs in the tube, organic vapors will not be trapped efficiently. Preliminary experiments using toluene indicate that high humidity severely decreases the breakthrough volume.

(ii) When interfering compounds are known or suspected to be present in the air, such information, including their suspected identities, should be transmitted with the sample.

(iii) It must be emphasized that any compound which has the same retention time as the analyte at the operating conditions described in this method is an interference. Retention time data on a single column cannot be considered proof of chemical identity.

(iv) If the possibility of interference exists, separation conditions (column packing, temperature, etc.) must be changed to circumvent the problem.

(d) Precision and accuracy.

(i) The coefficient of variation ( $CV_t$ ) for the total analytical and sampling method in the range of 17.5-70.0 mg/cu m was 0.073. This value corresponds to a 3.3 mg/cu m standard deviation at the (previous) OSHA standard level (20 ppm). Statistical information and details of the validation and experimental test procedures can be found in (k)(ii) of this subsection.

(ii) On the average the concentrations obtained at the 20 ppm level using the overall sampling and analytical method were 6.0 percent lower than the "true" concentrations for a limited number of laboratory experiments. Any difference between the "found" and "true" concentrations may not represent a bias in the sampling and analytical method, but rather a random variation from the experimentally determined "true" concentration. Therefore, no recovery correction should be applied to the final result in (j)(v) of this subsection.

(e) Advantages and disadvantages of the method.

(i) The sampling device is small, portable, and involves no liquids. Interferences are minimal, and most of those which do occur can be eliminated by altering chromatographic conditions. The tubes are analyzed by means of a quick, instrumental method.

(ii) The method can also be used for the simultaneous analysis of two or more substances suspected to be present in the same sample by simply changing gas chromatographic conditions.

(iii) One disadvantage of the method is that the amount of sample which can be taken is limited by the number of milligrams that the tube will hold before overloading. When the sample value obtained for the backup section of the charcoal tube exceeds 25 percent of that found on the front section, the possibility of sample loss exists.

(iv) Furthermore, the precision of the method is limited by the reproducibility of the pressure drop across the tubes. This drop will affect the flow rate and cause the volume to be

imprecise, because the pump is usually calibrated for one tube only.

(f) Apparatus.

(i) A calibrated personal sampling pump whose flow can be determined within  $\pm 5$  percent at the recommended flow rate. Reference (k)(iii) of this subsection.

(ii) Charcoal tubes: Glass tubes with both ends flame sealed, 7 cm long with a 6 mm O.D. and a 4 mm I.D., containing 2 sections of 20/40 mesh activated charcoal separated by a 2 mm portion of urethane foam. The activated charcoal is prepared from coconut shells and is fired at 600°C prior to packing. The adsorbing section contains 100 mg of charcoal, the backup section 50 mg. A 3 mm portion of urethane foam is placed between the outlet end of the tube and the backup section. A plug of silicated glass wool is placed in front of the adsorbing section. The pressure drop across the tube must be less than 1 inch of mercury at a flow rate of 1 liter per minute.

(iii) Gas chromatograph equipped with a flame ionization detector.

(iv) Column (4 ft  $\times$  1/4 in stainless steel) packed with 50/80 mesh Poropak, type Q.

(v) An electronic integrator or some other suitable method for measuring peak areas.

(vi) Two-milliliter sample containers with glass stoppers or Teflon-lined caps. If an automatic sample injector is used, the associated vials may be used.

(vii) Microliter syringes: Ten-microliter and other convenient sizes for making standards.

(viii) Pipets: 1.0 ml delivery pipets.

(ix) Volumetric flask: 10 ml or convenient sizes for making standard solutions.

(g) Reagents.

(i) Chromatographic quality methanol.

(ii) Acrylonitrile, reagent grade.

(iii) Hexane, reagent grade.

(iv) Purified nitrogen.

(v) Prepurified hydrogen.

(vi) Filtered compressed air.

(h) Procedure.

(i) Cleaning of equipment. All glassware used for the laboratory analysis should be detergent washed and thoroughly rinsed with tap water and distilled water.

(ii) Calibration of personal pumps. Each personal pump must be calibrated with a representative charcoal tube in the line. This will minimize errors associated with uncertainties in the sample volume collected.

(iii) Collection and shipping of samples.

(A) Immediately before sampling, break the ends of the tube to provide an opening at least one-half the internal diameter of the tube (2mm).

(B) The smaller section of charcoal is used as a backup and should be positioned nearest the sampling pump.

(C) The charcoal tube should be placed in a vertical direction during sampling to minimize channeling through the charcoal.

(D) Air being sampled should not be passed through any hose or tubing before entering the charcoal tube.

(E) A maximum sample size of 20 liters is recommended. Sample at a flow of 0.20 liter per minute or less. The

flow rate should be known with an accuracy of at least  $\pm 5$  percent.

(F) The temperature and pressure of the atmosphere being sampled should be recorded. If pressure reading is not available, record the elevation.

(G) The charcoal tubes should be capped with the supplied plastic caps immediately after sampling. Under no circumstances should rubber caps be used.

(H) With each batch of ten samples submit one tube from the same lot of tubes which was used for sample collection and which is subjected to exactly the same handling as the samples except that no air is drawn through it. Label this as a blank.

(I) Capped tubes should be packed tightly and padded before they are shipped to minimize tube breakage during shipping.

(J) A sample of the bulk material should be submitted to the laboratory in a glass container with a Teflon-lined cap. This sample should not be transported in the same container as the charcoal tubes.

(iv) Analysis of samples.

(A) Preparation of samples. In preparation for analysis, each charcoal tube is scored with a file in front of the first section of charcoal and broken open. The glass wool is removed and discarded. The charcoal in the first (larger) section is transferred to a 2 ml stoppered sample container. The separating section of foam is removed and discarded; the second section is transferred to another stoppered container. These two sections are analyzed separately.

(B) Desorption of samples. Prior to analysis, 1.0 ml of methanol is pipetted into each sample container. Desorption should be done for 30 minutes. Tests indicate that this is adequate if the sample is agitated occasionally during this period. If an automatic sample injector is used, the sample vials should be capped as soon as the solvent is added to minimize volatilization.

(C) GC conditions. The typical operating conditions for the gas chromatograph are:

(I) 50 ml/min (60 psig) nitrogen carrier gas flow.

(II) 65 ml/min (24 psig) hydrogen gas flow to detector.

(III) 500 ml/min (50 psig) air flow to detector.

(IV) 235°C injector temperature.

(V) 255°C manifold temperature (detector).

(VI) 155°C column temperature.

(D) Injection. The first step in the analysis is the injection of the sample into the gas chromatograph. To eliminate difficulties arising from blowback or distillation within the syringe needle, one should employ the solvent flush injection technique. The 10-microliter syringe is first flushed with solvent several times to wet the barrel and plunger. Three microliters of solvent are drawn into the syringe to increase the accuracy and reproducibility of the injected sample volume. The needle is removed from the solvent, and the plunger is pulled back about 0.2 microliter to separate the solvent flush from the sample with a pocket of air to be used as a marker. The needle is then immersed in the sample, and a five microliter aliquot is withdrawn, taking into consideration the volume of the needle, since the sample in the needle will be completely injected. After the needle is removed from the sample and prior to injection, the plunger is pulled back 1.2 microli-

ters to minimize evaporation of the sample from the tip of the needle. Observe that the sample occupies 4.9-5.0 microliters in the barrel of the syringe. Duplicate injections of each sample and standard should be made. No more than a 3 percent difference in area is to be expected. An automatic sample injector can be used if it is shown to give reproducibility at least as good as the solvent flush method.

(E) Measurement of area. The area of the sample peak is measured by an electronic integrator or some other suitable form of area measurement, and preliminary results are read from a standard curve prepared as discussed below.

(v) Determination of desorption efficiency.

(A) Importance of determination. The desorption efficiency of a particular compound can vary from one laboratory to another and also from one batch of charcoal to another. Thus, it is necessary to determine at least once the percentage of the specific compound that is removed in the desorption process, provided the same batch of charcoal is used.

(B) Procedure for determining desorption efficiency.

(I) Activated charcoal equivalent to the amount in the first section of the sampling tube (100 mg) is measured into a 2.5 in., 4 mm I.D. glass tube, flame sealed at one end. This charcoal must be from the same batch as that used in obtaining the samples and can be obtained from unused charcoal tubes. The open end is capped with Parafilm. A known amount of hexane solution of acrylonitrile containing 0.239 g/ml is injected directly into the activated charcoal with a microliter syringe, and tube is capped with more Parafilm. When using an automatic sample injector, the sample injector vials, capped with Teflon-faced septa, may be used in place of the glass tube.

(II) The amount injected is equivalent to that present in a twenty-liter air sample at the selected level.

(III) Six tubes at each of three levels (0.5X, 1X, and 2X of the standard) are prepared in this manner and allowed to stand for at least overnight to (~~assure~~) ensure complete adsorption of the analyte onto the charcoal. These tubes are referred to as the sample. A parallel blank tube should be treated in the same manner except that no sample is added to it. The sample and blank tubes are desorbed and analyzed in exactly the same manner as the sampling tube described in (h)(iv) of this subsection

(IV) Two or three standards are prepared by injecting the same volume of compound into 1.0 ml of methanol with the same syringe used in the preparation of the samples. These are analyzed with the samples.

(V) The desorption efficiency (D.E.) equals the average weight in mg recovered from the tube divided by the weight in mg added to the tube, or

$$D.E. = \frac{\text{Average weight recovered (mg)}}{\text{weight added (mg)}}$$

(VI) The desorption efficiency is dependent on the amount of analyte collected on the charcoal. Plot the desorption efficiency versus weight of analyte found. This curve is used in (j)(iv) of this subsection to correct for adsorption losses.

(i) Calibration and standards. It is convenient to express concentration of standards in terms of mg/1.0 ml methanol, because samples are desorbed in this amount of methanol. The density of the analyte is used to convert mg into microliters for easy measurement with a microliter syringe. A series of standards, varying in concentration over the range of interest, is prepared and analyzed under the same GC conditions and during the same time period as the unknown samples. Curves are established by plotting concentration in mg/1.0 ml versus peak area.

Note: Since no internal standard is used in the method, standard solutions must be analyzed at the same time that the sample analysis is done. This will minimize the effect of known day-to-day variations and variations during the same day of the FID response.

(j) Calculations.

(i) Read the weight, in mg, corresponding to each peak area from the standard curve. No volume corrections are needed, because the standard curve is based on mg/1.0 ml methanol and the volume of sample injected is identical to the volume of the standards injected.

(ii) Corrections for the blank must be made for each sample.

$$mg = mg \text{ sample} - mg \text{ blank}$$

Where:

mg sample = mg found in front section of sample tube.

mg sample = mg found in front section of blank tube.

Note: A similar procedure is followed for the backup sections.

(iii) Add the weights found in the front and backup sections to get the total weight in the sample.

(iv) Read the desorption efficiency from the curve (reference (h)(v)(B) of this subsection) for the amount found in the front section. Divide the total weight by this desorption efficiency to obtain the corrected mg/sample.

$$\text{Corrected mg/sample} = \frac{\text{Total weight}}{D.E.}$$

(v) The concentration of the analyte in the air sampled can be expressed in mg/cu m.

$$mg/cu m = \text{Corrected mg (see (j)(iv))} \times \frac{1,000 \text{ (liter/cu m)}}{\text{air volume sampled (liter)}}$$

(vi) Another method of expressing concentration is ppm.

$$ppm = mg/cu m \times 24.45/M.W. \times 760/P \times T + 273/298$$

Where:

P = Pressure (mm Hg) of air sampled.

T = Temperature (°C) of air sampled.

24.45 = Molar volume (liter/mole) at 25°C and 760 mm Hg.

M.W. = Molecular weight (g/mole) of analyte.

760 = Standard pressure (mm Hg).

298 = Standard temperature (°K).

## (k) References.

(i) White, L. D. et al., "A Convenient Optimized Method for the Analysis of Selected Solvent Vapors in the Industrial Atmosphere," *Amer. Ind. Hyg. Assoc. J.*, 31:225 (1970).

(ii) Documentation of NIOSH Validation Tests, NIOSH Contract No. CDC-99-74-45.

(iii) Final Report, NIOSH Contract HSM-99-71-31, "Personal Sampler Pump for Charcoal Tubes," September 15, 1972.

(7) NIOSH Modification of NIOSH Method S-156. The NIOSH recommended method for low levels for acrylonitrile is a modification of method S-156. It differs in the following respects:

(a) Samples are desorbed using 1 ml of 1 percent acetone in CS<sub>2</sub> rather than methanol.

(b) The analytical column and conditions are:

(i) Column: 20 percent SP-1000 on 80/100 Supelcoport 10 feet × 1/8 inch S.S.

(ii) Conditions:

Injector temperature: 200°C.

Detector temperature: 100°C.

Column temperature: 85°C.

Helium flow: 25 ml/min.

Air flow: 450 ml/min.

Hydrogen flow: 55 ml/min.

(c) A 2 µl injection of the desorbed analyte is used.

(d) A sampling rate of 100 ml/min is recommended.

(8) OSHA Laboratory Modification of NIOSH Method S-156.

(a) Analyte: Acrylonitrile.

(b) Matrix: Air.

(c) Procedure: Adsorption on charcoal, desorption with methanol, GC.

(d) Principle of the method (subsection (1)(a) of this section).

(i) A known volume of air is drawn through a charcoal tube to trap the organic vapors present.

(ii) The charcoal in the tube is transferred to a small, stoppered sample vial, and the analyte is desorbed with methanol.

(iii) An aliquot of the desorbed sample is injected into a gas chromatograph.

(iv) The area of the resulting peak is determined and compared with areas obtained for standards.

(e) Advantages and disadvantages of the method.

(i) The sampling device is small, portable, and involves no liquids. Interferences are minimal, and most of those which do occur can be eliminated by altering chromatographic conditions. The tubes are analyzed by means of a quick, instrumental method.

(ii) This method may not be adequate for the simultaneous analysis of two or more substances.

(iii) The amount of sample which can be taken is limited by the number of milligrams that the tube will hold before overloading. When the sample value obtained for the backup section of the charcoal tube exceeds 25 percent of that found on the front section, the possibility of sample loss exists.

(iv) The precision of the method is limited by the reproducibility of the pressure drop across the tubes. This drop will

affect the flow rate and cause the volume to be imprecise, because the pump is usually calibrated for one tube only.

(f) Apparatus.

(i) A calibrated personal sampling pump whose flow can be determined within ±5 percent at the recommended flow rate.

(ii) Charcoal tubes: Glass tube with both ends flame sealed, 7 cm long with a 6 mm O.D. and a 4 mm I.D., containing 2 sections of 20/40 mesh activated charcoal separated by a 2 mm portion of urethane foam. The activated charcoal is prepared from coconut shells and is fired at 600°C prior to packing. The absorbing section contains 100 mg of charcoal, the back-up section 50 mg. A 3 mm portion of urethane foam is placed between the outlet end of the tube and the back-up section. A plug of silicated glass wool is placed in front of the adsorbing section. The pressure drop across the tube must be less than one inch of mercury at a flow rate of 1 liter per minute.

(iii) Gas chromatograph equipped with a nitrogen phosphorus detector.

(iv) Column (10 ft × 1/8 in stainless steel) packed with 100/120 Supelcoport coated with 10 percent SP 1000.

(v) An electronic integrator or some other suitable method for measuring peak area.

(vi) Two-milliliter sample vials with Teflon-lined caps.

(vii) Microliter syringes: 10 microliter, and other convenient sizes for making standards.

(viii) Pipets: 1.0 ml delivery pipets.

(ix) Volumetric flasks: Convenient sizes for making standard solutions.

(g) Reagents.

(i) Chromatographic quality methanol.

(ii) Acrylonitrile, reagent grade.

(iii) Filtered compressed air.

(iv) Purified hydrogen.

(v) Purified helium.

(h) Procedure.

(i) Cleaning of equipment. All glassware used for the laboratory analysis should be properly cleaned and free of organics which could interfere in the analysis.

(ii) Calibration of personal pumps. Each pump must be calibrated with a representative charcoal tube in the line.

(iii) Collection and shipping of samples.

(A) Immediately before sampling, break the ends of the tube to provide an opening at least one-half the internal diameter of the tube (2 mm).

(B) The smaller section of the charcoal is used as the backup and should be placed nearest the sampling pump.

(C) The charcoal should be placed in a vertical position during sampling to minimize channeling through the charcoal.

(D) Air being sampled should not be passed through any hose or tubing before entering the charcoal tube.

(E) A sample size of 20 liters is recommended. Sample at a flow rate of approximately 0.2 liters per minute. The flow rate should be known with an accuracy of at least ±5 percent.

(F) The temperature and pressure of the atmosphere being sampled should be recorded.

(G) The charcoal tubes should be capped with the supplied plastic caps immediately after sampling. Rubber caps should not be used.

(H) Submit at least one blank tube (a charcoal tube subjected to the same handling procedures, without having any air drawn through it) with each set of samples.

(I) Take necessary shipping and packing precautions to minimize breakage of samples.

(iv) Analysis of samples.

(A) Preparation of samples. In preparation for analysis, each charcoal tube is scored with a file in front of the first section of charcoal and broken open. The glass wool is removed and discarded. The charcoal in the first (larger) section is transferred to a 2 ml vial. The separating section of foam is removed and discarded; the section is transferred to another capped vial. These two sections are analyzed separately.

(B) Desorption of samples. Prior to analysis, 1.0 ml of methanol is pipetted into each sample container. Desorption should be done for 30 minutes in an ultrasonic bath. The sample vials are recapped as soon as the solvent is added.

(C) GC conditions. The typical operating conditions for the gas chromatograph are:

(I) 30 ml/min (60 psig) helium carrier gas flow.

(II) 3.0 ml/min (30 psig) hydrogen gas flow to detector.

(III) 50 ml/min (60 psig) air flow to detector.

(IV) 200°C injector temperature.

(V) 200°C detector temperature.

(VI) 100°C column temperature.

(D) Injection. Solvent flush technique or equivalent.

(E) Measurement of area. The area of the sample peak is measured by an electronic integrator or some other suitable form of area measurement, and preliminary results are read from a standard curve prepared as discussed below.

(v) Determination of desorption efficiency.

(A) Importance of determination. The desorption efficiency of a particular compound can vary from one laboratory to another and also from one batch of charcoal to another. Thus, it is necessary to determine, at least once, the percentage of the specific compound that is removed in the desorption process, provided the same batch of charcoal is used.

(B) Procedure for determining desorption efficiency. The reference portion of the charcoal tube is removed. To the remaining portion, amounts representing 0.5X, 1X, and 2X (X represents TLV) based on a 20 l air sample are injected onto several tubes at each level. Dilutions of acrylonitrile with methanol are made to allow injection of measurable quantities. These tubes are then allowed to equilibrate at least overnight. Following equilibration they are analyzed following the same procedure as the samples. A curve of the desorption efficiency (amt recovered/amt added) is plotted versus amount of analyte found. This curve is used to correct for adsorption losses.

(i) Calibration and standards. A series of standards, varying in concentration over the range of interest, is prepared and analyzed under the same GC conditions and during the same time period as the unknown samples. Curves are prepared by plotting concentration versus peak area.

Note: Since no internal standard is used in the method, standard solutions must be analyzed at the same time that the sample analysis is done. This will minimize the effect of known day-to-day variations and variations during the same day of the NPD response. Multiple injections are necessary.

(j) Calculations. Read the weight, corresponding to each peak area from the standard curve, correct for the blank, correct for the desorption efficiency, and make necessary air volume corrections.

(k) Reference. NIOSH Method S-156.

AMENDATORY SECTION (Amending WSR 14-07-086, filed 3/18/14, effective 5/1/14)

**WAC 296-62-07342 1,2-Dibromo-3-chloropropane.**

(1) Scope and application.

(a) This section applies to occupational exposure to 1,2-dibromo-3-chloropropane (DBCP).

(b) This section does not apply to:

(i) Exposure to DBCP which results solely from the application and use of DBCP as a pesticide; or

(ii) The storage, transportation, distribution or sale of DBCP in intact containers sealed in such a manner as to prevent exposure to DBCP vapors or liquids, except for the requirements of subsections (11), (16), and (17) of this section.

(2) Definitions applicable to this section:

(a) (~~("Authorized person")~~) **Authorized person.** Any person specifically authorized by the employer and whose duties require the person to be present in areas where DBCP is present; and any person entering this area as a designated representative of employees exercising an opportunity to observe employee exposure monitoring.

(b) (~~("DBCP")~~) **DBCP.** 1,2-dibromo-3-chloropropane, Chemical Abstracts Service Registry Number 96-12-8, and includes all forms of DBCP.

(c) (~~("Director")~~) **Director.** The director of labor and industries, or his authorized representative.

(d) (~~("Emergency")~~) **Emergency.** Any occurrence such as, but not limited to equipment failure, rupture of containers, or failure of control equipment which may, or does, result in unexpected release of DBCP.

(3) Permissible exposure limits.

(a) Inhalation.

(i) Time-weighted average limit (TWA). The employer (~~(shall assure)~~) **must ensure** that no employee is exposed to an airborne concentration in excess of one part DBCP per billion part of air (ppb) as an eight-hour time-weighted average.

(ii) Ceiling limit. The employer (~~(shall assure)~~) **must ensure** that no employee is exposed to an airborne concentration in excess of five parts DBCP per billion parts of air (ppb) as averaged over any fifteen minutes during the working day.

(b) Dermal and eye exposure. The employer (~~(shall assure)~~) **must ensure** that no employee is exposed to eye or skin contact with DBCP.

(4) Notification of use. Within ten days of the effective date of this section or within ten days following the introduction of DBCP into the workplace, every employer who has a workplace where DBCP is present (~~(shall)~~) **must** report the

following information to the director for each such workplace:

(a) The address and location of each workplace in which DBCP is present;

(b) A brief description of each process or operation which may result in employee exposure to DBCP;

(c) The number of employees engaged in each process or operation who may be exposed to DBCP and an estimate of the frequency and degree of exposure that occurs;

(d) A brief description of the employer's safety and health program as it relates to limitation of employee exposure to DBCP.

(5) Regulated areas. The employer ~~((shall))~~ must establish, within each place of employment, regulated areas whenever DBCP concentrations are in excess of the permissible exposure limit.

(a) The employer ~~((shall))~~ must limit access to regulated areas to authorized persons.

(b) All employees entering or working in a regulated area ~~((shall))~~ must wear respiratory protection in accordance with Table I.

(6) Exposure monitoring.

(a) General. Determinations of airborne exposure levels ~~((shall))~~ must be made from air samples that are representative of each employee's exposure to DBCP over an eight-hour period. (For the purposes of this section, employee exposure is that exposure which would occur if the employee were not using a respirator.)

(b) Initial. Each employer who has a place of employment in which DBCP is present ~~((shall))~~ must monitor each workplace and work operation to accurately determine the airborne concentrations of DBCP to which employees may be exposed.

(c) Frequency.

(i) If the monitoring required by this section reveals employee exposures to be below the permissible exposure limits, the employer ~~((shall))~~ must repeat these determinations at least quarterly.

(ii) If the monitoring required by this section reveals employee exposure to be in excess of the permissible exposure limits, the employer ~~((shall))~~ must repeat these determinations for each such employee at least monthly. The employer ~~((shall))~~ must continue these monthly determinations until at least two consecutive measurements, taken at least seven days apart, are below the permissible exposure limit, thereafter the employer ~~((shall))~~ must monitor at least quarterly.

(d) Additional. Whenever there has been a production process, control or personnel change which may result in any new or additional exposure to DBCP, or whenever the employer has any other reason to suspect a change which may result in new or additional exposure to DBCP, additional monitoring which complies with ~~((subsection (6) shall))~~ this subsection must be conducted.

(e) Employee notification.

(i) Within five working days after the receipt of monitoring results, the employer ~~((shall))~~ must notify each employee in writing of results which represent the employee's exposure.

(ii) Whenever the results indicate that employee exposure exceeds the permissible exposure limit, the employer ~~((shall))~~ must include in the written notice a statement that the permissible exposure limit was exceeded and a description of the corrective action being taken to reduce exposure to or below the permissible exposure limits.

(f) Accuracy of measurement. The method of measurement ~~((shall))~~ must be accurate, to a confidence level of ninety-five percent, to within plus or minus twenty-five percent for concentrations of DBCP at or above the permissible exposure limits.

(7) Methods of compliance.

(a) Priority of compliance methods. The employer ~~((shall))~~ must institute engineering and work practice controls to reduce and maintain employee exposures to DBCP at or below the permissible exposure limit, except to the extent that the employer establishes that such controls are not feasible. Where feasible engineering and work practice controls are not sufficient to reduce employee exposures to within the permissible exposure limit, the employer ~~((shall))~~ must nonetheless use them to reduce exposures to the lowest level achievable by these controls, and ~~((shall))~~ must supplement them by use of respiratory protection.

(b) Compliance program.

(i) The employer ~~((shall))~~ must establish and implement a written program to reduce employee exposure to DBCP to or below the permissible exposure limit solely by means of engineering and work practice controls as required by this section.

(ii) The written program ~~((shall))~~ must include a detailed schedule for development and implementation of the engineering and work practice controls. These plans ~~((shall))~~ must be revised at least every six months to reflect the current status of the program.

(iii) Written plans for these compliance programs ~~((shall))~~ must be submitted upon request to the director, and ~~((shall))~~ must be available at the worksite for examination and copying by the director, and any affected employee or designated representative of employees.

(iv) The employer ~~((shall))~~ must institute and maintain at least the controls described in his most recent written compliance program.

(8) Respiratory protection.

(a) General. For employees who are required to use respirators under this section, the employer must provide each employee an appropriate respirator that complies with the requirements of this subsection. Respirators must be used during:

(i) Period necessary to install or implement feasible engineering and work-practice controls;

(ii) Maintenance and repair activities for which engineering and work-practice controls are not feasible;

(iii) Work operations for which feasible engineering and work-practice controls are not yet sufficient to reduce employee exposure to or below the permissible exposure limit;

(iv) Emergencies.

(b) The employer must establish, implement, and maintain a respiratory protection program as required by chapter

296-842 WAC, Respirators, which covers each employee required by this chapter to use a respirator.

(c) Respirator selection. The employer must:

(i) Select and provide to employees appropriate respirators according to this chapter and WAC 296-842-13005 in the respirator rule.

(ii) Provide employees with one of the following respirator options to use for entry into, or escape from, unknown DBCP concentrations:

(A) A combination respirator that includes a full-facepiece air-line respirator operated in a pressure-demand or other positive-pressure mode or continuous-flow mode and an auxiliary self-contained breathing apparatus (SCBA) operated in a pressure-demand or positive-pressure mode; or

(B) A full-facepiece SCBA operated in a pressure-demand or other positive-pressure mode.

(9) Reserved.

(10) Emergency situations.

(a) Written plans.

(i) A written plan for emergency situations ~~((shall))~~ must be developed for each workplace in which DBCP is present.

(ii) Appropriate portions of the plan ~~((shall))~~ must be implemented in the event of an emergency.

(b) Employees engaged in correcting conditions ~~((shall))~~ must be equipped as required in subsection (11) of this section until the emergency is abated.

(c) Evacuation. Employees not engaged in correcting the emergency ~~((shall))~~ must be removed and restricted from the area and normal operations in the affected area ~~((shall))~~ must not be resumed until the emergency is abated.

(d) Alerting employees. Where there is a possibility of employee exposure to DBCP due to the occurrence of an emergency, a general alarm ~~((shall))~~ must be installed and maintained to promptly alert employees of such occurrences.

(e) Medical surveillance. For any employee exposed to DBCP in an emergency situation, the employer ~~((shall))~~ must provide medical surveillance in accordance with subsection (14) of this section.

(f) Exposure monitoring.

(i) Following an emergency, the employer ~~((shall))~~ must conduct monitoring which complies with subsection (6) of this section.

(ii) In workplaces not normally subject to periodic monitoring, the employer may terminate monitoring when two consecutive measurements indicate exposures below the permissible exposure limit.

(11) Protective clothing and equipment.

(a) Provision and use. Where eye or skin contact with liquid or solid DBCP may occur, employers ~~((shall))~~ must provide at no cost to the employee, and ~~((assure))~~ ensure that employees wear impermeable protective clothing and equipment in accordance with WAC 296-800-160 to protect the area of the body which may come in contact with DBCP.

(b) Cleaning and replacement.

(i) The employer ~~((shall))~~ must clean, launder, maintain, or replace protective clothing and equipment required by this subsection to maintain their effectiveness. In addition, the employer ~~((shall))~~ must provide clean protective clothing and equipment at least daily to each affected employee.

(ii) Removal and storage.

(A) The employer ~~((shall-assure))~~ must ensure that employees remove DBCP contaminated work clothing only in change rooms provided in accordance with subsection (13) of this section.

(B) The employer ~~((shall-assure))~~ must ensure that employees promptly remove any protective clothing and equipment which becomes contaminated with DBCP-containing liquids and solids. This clothing ~~((shall))~~ must not be reworn until the DBCP has been removed from the clothing or equipment.

(C) The employer ~~((shall-assure))~~ must ensure that no employee takes DBCP contaminated protective devices and work clothing out of the change room, except those employees authorized to do so for the purpose of laundering, maintenance, or disposal.

(iii) The employer ~~((shall-assure))~~ must ensure that DBCP-contaminated protective work clothing and equipment is placed and stored in closed containers which prevent dispersion of DBCP outside the container.

(iv) The employer ~~((shall))~~ must inform any person who launders or cleans DBCP-contaminated protective clothing or equipment of the potentially harmful effects of exposure to DBCP.

(v) Containers of DBCP-contaminated protective devices or work clothing which are to be taken out of change rooms or the workplace for cleaning, maintenance or disposal ~~((shall))~~ must bear labels with the following information: CONTAMINATED WITH 1,2-Dibromo-3-chloropropane (DBCP), MAY CAUSE CANCER.

(vi) The employer ~~((shall))~~ must prohibit the removal of DBCP from protective clothing and equipment by blowing or shaking.

(12) Housekeeping.

(a) Surfaces.

(i) All surfaces ~~((shall))~~ must be maintained free of accumulations of DBCP.

(ii) Dry sweeping and the use of air for the cleaning of floors and other surfaces where DBCP dust or liquids are found is prohibited.

(iii) Where vacuuming methods are selected, either portable units or a permanent system may be used.

(A) If a portable unit is selected, the exhaust ~~((shall))~~ must be attached to the general workplace exhaust ventilation system or collected within the vacuum unit, equipped with high efficiency filters or other appropriate means of contaminant removal, so that DBCP is not reintroduced into the workplace air; and

(B) Portable vacuum units used to collect DBCP may not be used for other cleaning purposes and ~~((shall))~~ must be labeled as prescribed by subsection (11)(b)(v) of this section.

(iv) Cleaning of floors and other contaminated surfaces may not be performed by washing down with a hose, unless a fine spray has first been laid down.

(b) Liquids. Where DBCP is present in a liquid form, or as a resultant vapor, all containers or vessels containing DBCP ~~((shall))~~ must be enclosed to the maximum extent feasible and tightly covered when not in use.

(c) Waste disposal. DBCP waste, scrap, debris, bags, containers or equipment, ~~((shall))~~ must be disposed in sealed

bags or other closed containers which prevent dispersion of DBCP outside the container.

(13) Hygiene facilities and practices.

(a) Change rooms. The employer (~~((shall))~~ must provide clean change rooms equipped with storage facilities for street clothes and separate storage facilities for protective clothing and equipment whenever employees are required to wear protective clothing and equipment in accordance with subsections (8), (9), and (11) of this section.

(b) Showers.

(i) The employer (~~((shall assure))~~ must ensure that employees working in the regulated area shower at the end of the work shift.

(ii) The employer (~~((shall assure))~~ must ensure that employees whose skin becomes contaminated with DBCP-containing liquids or solids immediately wash or shower to remove any DBCP from the skin.

(iii) The employer (~~((shall))~~ must provide shower facilities in accordance with WAC 296-800-230.

(c) Lunchrooms. The employer (~~((shall))~~ must provide lunchroom facilities which have a temperature controlled, positive pressure, filtered air supply, and which are readily accessible to employees working in regulated areas.

(d) Lavatories.

(i) The employer (~~((shall assure))~~ must ensure that employees working in the regulated area remove protective clothing and wash their hands and face prior to eating.

(ii) The employer (~~((shall))~~ must provide a sufficient number of lavatory facilities which comply with WAC 296-800-230.

(e) Prohibition of activities in regulated areas. The employer (~~((shall assure))~~ must ensure that, in regulated areas, food or beverages are not present or consumed, smoking products and implements are not present or used, and cosmetics are not present or applied.

(14) Medical surveillance.

(a) General. The employer (~~((shall))~~ must institute a program of medical surveillance for each employee who is or will be exposed, without regard to the use of respirators, to DBCP. The employer (~~((shall))~~ must provide each such employee with an opportunity for medical examinations and tests in accordance with this subsection. All medical examinations and procedures shall be performed by or under the supervision of a licensed physician, and (~~((shall))~~ must be provided without cost to the employee.

(b) Frequency and content. At the time of initial assignment, annually thereafter, and whenever exposure to DBCP occurs, the employer (~~((shall))~~ must provide a medical examination for employees who work in regulated areas, which includes at least the following:

(i) A complete medical and occupational history with emphasis on reproductive history.

(ii) A complete physical examination with emphasis on the genito-urinary tract, testicle size, and body habitus including the following tests:

(A) Sperm count;

(B) Complete urinalysis (U/A);

(C) Complete blood count; and

(D) Thyroid profile.

(ii) A serum specimen (~~((shall))~~ must be obtained and the following determinations made by radioimmunoassay techniques utilizing National Institutes of Health (NIH) specific antigen or one of equivalent sensitivity:

(A) Serum multiphasic analysis (SMA 12);

(B) Serum follicle stimulating hormone (FSH);

(C) Serum luteinizing hormone (LH); and

(D) Serum estrogen (females).

(iv) Any other tests deemed appropriate by the examining physician.

(c) Additional examinations. If the employee for any reason develops signs or symptoms commonly associated with exposure to DBCP, the employer (~~((shall))~~ must provide the employee with a medical examination which (~~((shall))~~ must include those elements considered appropriate by the examining physician.

(d) Information provided to the physician. The employer (~~((shall))~~ must provide the following information to the examining physician:

(i) A copy of this standard and its appendices;

(ii) A description of the affected employee's duties as they relate to the employee's exposure;

(iii) The level of DBCP to which the employee is exposed; and

(iv) A description of any personal protective equipment used or to be used.

(e) Physician's written opinion.

(i) For each examination under this section, the employer (~~((shall))~~ must obtain and provide the employee with a written opinion from the examining physician which (~~((shall))~~ must include:

(A) The results of the medical tests performed;

(B) The physician's opinion as to whether the employee has any detected medical condition which would place the employee at an increased risk of material impairment of health from exposure to DBCP;

(C) Any recommended limitations upon the employee's exposure to DBCP or upon the use of protective clothing and equipment such as respirators; and

(D) A statement that the employee was informed by the physician of the results of the medical examination, and any medical conditions which require further examination or treatment.

(ii) The employer (~~((shall))~~ must instruct the physician not to reveal in the written opinion specific findings or diagnoses unrelated to occupational exposure to DBCP.

(iii) The employer (~~((shall))~~ must provide a copy of the written opinion to the affected employee.

(f) Emergency situations. If the employee is exposed to DBCP in an emergency situation, the employer (~~((shall))~~ must provide the employee with a sperm count test as soon as practicable, or, if the employee is unable to produce a semen specimen, the hormone tests contained in (b) of this subsection. The employer (~~((shall))~~ must provide these same tests three months later.

(15) Employee information and training.

(a) Training program.

(i) Within thirty days of the effective date of this standard, the employer (~~((shall))~~ must institute a training program for all employees who may be exposed to DBCP and (~~((shall))~~

~~assure~~) must ensure their participation in such training program.

(ii) The employer (~~(shall assure)~~) must ensure that each employee is informed of the following:

(A) The information contained in Appendices A, B and C;

(B) The quantity, location, manner of use, release or storage of DBCP and the specific nature of operations which could result in exposure to DBCP as well as any necessary protective steps;

(C) The purpose, proper use, limitations, and other training requirements covering respiratory protection as required in chapter (~~(296-62)~~) 296-842 WAC(~~(-Part E)~~);

(D) The purpose and description of the medical surveillance program required by subsection (14) of this section; and

(E) A review of this standard.

(b) Access to training materials.

(i) The employer (~~(shall)~~) must make a copy of this standard and its appendices readily available to all affected employees.

(ii) The employer (~~(shall)~~) must provide, upon request, all materials relating to the employee information and training program to the director.

(16) Communication of hazards.

(a) Hazard communication - General.

(i) Chemical manufacturers, importers, distributors and employers (~~(shall)~~) must comply with all requirements of the Hazard Communication Standard (HCS), WAC 296-901-140 for DBCP.

(ii) In classifying the hazards of DBCP at least the following hazards are to be addressed: Cancer; reproductive effects; liver effects; kidney effects; central nervous system effects; skin, eye and respiratory tract irritation; and acute toxicity effects.

(iii) Employers (~~(shall)~~) must include DBCP in the hazard communication program established to comply with the HCS, WAC 296-901-140. Employers (~~(shall)~~) must ensure that each employee has access to labels on containers of DBCP and to safety data sheets, and is trained in accordance with the requirements of HCS and subsection (15) of this section.

(iv) The employer may use labels or signs required by other statutes, regulations, or ordinances in addition to or in combination with, signs and labels required by this subsection.

(v) The employer (~~(shall)~~) must ensure that no statement appears on or near any sign or label required by this subsection which contradicts or detracts from the required sign or label.

(b) Signs.

~~((+))~~) The employer (~~(shall)~~) must post signs to clearly indicate all regulated areas. These signs (~~(shall)~~) must bear the legend:

DANGER

1,2-Dibromo-3-chloropropane

MAY CAUSE CANCER

WEAR RESPIRATORY PROTECTION IN THIS AREA

AUTHORIZED PERSONNEL ONLY

~~((ii) Prior to June 1, 2016, employers may use the following legend in lieu of that specified in (b) of this subsection:~~

DANGER

1,2-Dibromo-3-chloropropane

~~(Insert appropriate trade or common names)~~

CANCER HAZARD

AUTHORIZED PERSONNEL ONLY

RESPIRATOR REQUIRED))

(c) Labels.

(i) Where DBCP or products containing DBCP are sold, distributed or otherwise leave the employer's workplace bearing appropriate labels required by EPA under the regulations in 40 C.F.R. Part 162, the labels required by (c) of this subsection need not be affixed.

(ii) The employer (~~(shall)~~) must ensure that the precautionary labels required by (c) of this subsection are readily visible and legible.

~~((iii) Prior to June 1, 2015, employers may include the following information on containers of DBCP or products containing DBCP, DBCP-contaminated protective devices or work clothing or DBCP-contaminated portable vacuums in lieu of the labeling requirements in (11)(b)(v), (12)(a)(iii)(B) and (a)(i) of this subsection:~~

DANGER

1,2-Dibromo-3-chloropropane

CANCER HAZARD))

(17) Recordkeeping.

(a) Exposure monitoring.

(i) The employer (~~(shall)~~) must establish and maintain an accurate record of all monitoring required by subsection (6) of this section.

(ii) This record (~~(shall)~~) must include:

(A) The dates, number, duration and results of each of the samples taken, including a description of the sampling procedure used to determine representative employee exposure;

(B) A description of the sampling and analytical methods used;

(C) Type of respiratory worn, if any; and

(D) Name, Social Security number, and job classification of the employee monitored and of all other employees whose exposure the measurement is intended to represent.

(ii) The employer (~~(shall)~~) must maintain this record for at least forty years or the duration of employment plus twenty years, whichever is longer.

(b) Medical surveillance.

(i) The employer ((~~shall~~) must) establish and maintain an accurate record for each employee subject to medical surveillance required by subsection (14) of this section.

(ii) This record ((~~shall~~) must) include:

(A) The name and Social Security number of the employee;

(B) A copy of the physician's written opinion;

(C) Any employee medical complaints related to exposure to DBCP;

(D) A copy of the information provided the physician as required by subsection (14)(c) of this section; and

(E) A copy of the employee's medical and work history.

(iii) The employer ((~~shall~~) must) maintain this record for at least forty years or the duration of employment plus twenty years, whichever is longer.

(c) Availability.

(i) The employer ((~~shall assure~~) must ensure) that all records required to be maintained by this section be made available upon request to the director for examination and copying.

(ii) Employee exposure monitoring records and employee medical records required by this subsection ((~~shall~~) must) be provided upon request to employees' designated representatives and the assistant director in accordance with chapter 296-802 WAC.

(d) Transfer of records.

(i) If the employer ceases to do business, the successor employer ((~~shall~~) must) receive and retain all records required to be maintained by this section for the prescribed period.

(ii) The employer ((~~shall~~) must) also comply with any additional requirements involving transfer of records set forth in WAC 296-802-60005.

(18) Observation of monitoring.

(a) Employee observation. The employer ((~~shall~~) must) provide affected employees, or their designated representatives, an opportunity to observe any monitoring of employee exposure to DBCP conducted under subsection (6) of this section.

(b) Observation procedures.

(i) Whenever observation of the measuring or monitoring of employee exposure to DBCP requires entry into an area where the use of protective clothing or equipment is required, the employer ((~~shall~~) must) provide the observer with personal protective clothing or equipment required to be worn by employees working in the area, ((~~assure~~) ensure) the use of such clothing and equipment, and require the observer to comply with all other applicable safety and health procedures.

(ii) Without interfering with the monitoring or measurement, observers shall be entitled to:

(A) Receive an explanation of the measurement procedures;

(B) Observe all steps related to the measurement of airborne concentrations of DBCP performed at the place of exposure; and

(C) Record the results obtained.

(19) Appendices. The information contained in the appendices is not intended, by itself, to create any additional

obligations not otherwise imposed or to detract from any existing obligation.

AMENDATORY SECTION (Amending WSR 99-10-071, filed 5/4/99, effective 9/1/99)

**WAC 296-62-07343 Appendix A—Substance safety data sheet for DBCP.** (1) Substance identification.

(a) Synonyms and trades names: DBCP; Dibromochloropropane; Fumazone (Dow Chemical Company TM); Nemaflume; Nemaflon (Shell Chemical Co. TM); Nemaflon; BBC 12; and OS 1879.

(b) Permissible exposure:

(i) Airborne. 1 part DBCP vapor per billion parts of air (1 ppb); time-weighted average (TWA) for an eight-hour workday.

(ii) Dermal. Eye contact and skin contact with DBCP are prohibited.

(c) Appearance and odor: Technical grade DBCP is a dense yellow or amber liquid with a pungent odor. It may also appear in granular form, or blended in varying concentrations with other liquids.

(d) Uses: DBCP is used to control nematodes, very small worm-like plant parasites, on crops including cotton, soybeans, fruits, nuts, vegetables and ornamentals.

(2) Health hazard data.

(a) Routes of entry: Employees may be exposed:

(i) Through inhalation (breathing);

(ii) Through ingestion (swallowing);

(iii) Skin contact; and

(iv) Eye contact.

(b) Effects of exposure:

(i) Acute exposure. DBCP may cause drowsiness, irritation of the eyes, nose, throat and skin, nausea and vomiting. In addition, overexposure may cause damage to the lungs, liver or kidneys.

(ii) Chronic exposure. Prolonged or repeated exposure to DBCP has been shown to cause sterility in humans. It also has been shown to produce cancer and sterility in laboratory animals and has been determined to constitute an increased risk of cancer in people.

(iii) Reporting signs and symptoms. If you develop any of the above signs or symptoms that you think are caused by exposure to DBCP, you should inform your employer.

(3) Emergency first-aid procedures.

(a) Eye exposure. If DBCP liquid or dust containing DBCP gets into your eyes, wash your eyes immediately with large amounts of water, lifting the lower and upper lids occasionally. Get medical attention immediately. Contact lenses should not be worn when working with DBCP.

(b) Skin exposure. If DBCP liquids or dusts containing DBCP get on your skin, immediately wash using soap or mild detergent and water. If DBCP liquids or dusts containing DBCP penetrate through your clothing, remove the clothing immediately and wash. If irritation is present after washing get medical attention.

(c) Breathing. If you or any person breathe in large amounts of DBCP, move the exposed person to fresh air at once. If breathing has stopped, perform artificial respiration.

Do not use mouth-to-mouth. Keep the affected person warm and at rest. Get medical attention as soon as possible.

(d) Swallowing. When DBCP has been swallowed and the person is conscious, give the person large amounts of water immediately. After the water has been swallowed, try to get the person to vomit by having ~~((him))~~ them touch the back of ~~((his))~~ their throat with ~~((his))~~ their finger. Do not make an unconscious person vomit. Get medical attention immediately.

(e) Rescue. Notify someone. Put into effect the established emergency rescue procedures. Know the locations of the emergency rescue equipment before the need arises.

(4) Respirators and protective clothing.

(a) Respirators. You may be required to wear a respirator in emergencies and while your employer is in the process of reducing DBCP exposures through engineering controls. If respirators are worn, they must have a label issued by the National Institute for Occupational Safety and Health (NIOSH) under the provisions of 42 C.F.R. part 84 stating that the respirators have been certified for use with organic vapors. For effective protection, a respirator must fit your face and head snugly. The respirator should not be loosened or removed in work situations where its use is required. Respirators must not be loosened or removed in work situations where their use is required.

(b) Protective clothing. When working with DBCP you must wear for your protection impermeable work clothing provided by your employer. (Standard rubber and neoprene protective clothing do not offer adequate protection). DBCP must never be allowed to remain on the skin. Clothing and shoes must not be allowed to become contaminated with DBCP, and if they do, they must be promptly removed and not worn again until completely free of DBCP. Turn in impermeable clothing that has developed leaks for repair or replacement.

(c) Eye protection. You must wear splashproof safety goggles where there is any possibility of DBCP liquid or dust contacting your eyes.

(5) Precautions for safe use, handling, and storage.

(a) DBCP must be stored in tightly closed containers in a cool, well-ventilated area.

(b) If your work clothing may have become contaminated with DBCP, or liquids or dusts containing DBCP, you must change into uncontaminated clothing before leaving the work premises.

(c) You must promptly remove any protective clothing that becomes contaminated with DBCP. This clothing must not be reworn until the DBCP is removed from the clothing.

(d) If your skin becomes contaminated with DBCP, you must immediately and thoroughly wash or shower with soap or mild detergent and water to remove any DBCP from your skin.

(e) You must not keep food, beverages, cosmetics, or smoking materials, nor eat or smoke, in regulated areas.

(f) If you work in a regulated area, you must wash your hands thoroughly with soap or mild detergent and water, before eating, smoking or using toilet facilities.

(g) If you work in a regulated area, you must remove any protective equipment or clothing before leaving the regulated area.

(h) Ask your supervisor where DBCP is used in your work area and for any additional safety and health rules.

(6) Access to information.

(a) Each year, your employer is required to inform you of the information contained in this substance safety data sheet for DBCP. In addition, your employer must instruct you in the safe use of DBCP, emergency procedures, and the correct use of protective equipment.

(b) Your employer is required to determine whether you are being exposed to DBCP. You or your representative have the right to observe employee exposure measurements and to record the result obtained. Your employer is required to inform you of your exposure. If your employer determines that you are being overexposed, they are required to inform you of the actions which are being taken to reduce your exposure.

(c) Your employer is required to keep records of your exposure and medical examinations. Your employer is required to keep exposure and medical data for at least forty years or the duration of your employment plus twenty years, whichever is longer.

(d) Your employer is required to release exposure and medical records to you, your physician, or other individual designated by you upon your written request.

AMENDATORY SECTION (Amending WSR 05-17-168, filed 8/23/05, effective 1/1/06)

**WAC 296-62-07355 Ethylene oxide.** Scope and application.

**Note:** The requirements in WAC 296-62-07355 through 296-62-07386 apply only to agriculture. The requirements for all other industries relating to ethylene oxide have been moved to chapter 296-855 WAC, Ethylene oxide.

(1) WAC 296-62-07355 through 296-62-07389 applies to all occupational exposures to ethylene oxide (EtO), Chemical Abstracts Service Registry No. 75-21-8, except as provided in subsection (2) of this section.

(2) WAC 296-62-07355 through 296-62-07389 does not apply to the processing, use, or handling of products containing EtO where objective data are reasonably relied upon that demonstrate that the product is not capable of releasing EtO in airborne concentrations at or above the action level, and may not reasonably be foreseen to release EtO in excess of the excursion limit, under the expected conditions of processing, use, or handling that will cause the greatest possible release.

(3) Where products containing EtO are exempted under subsection (2) of this section, the employer ~~((shall))~~ must maintain records of the objective data supporting that exemption and the basis for the employer's reliance on the data, as provided in WAC 296-62-07375(1).

AMENDATORY SECTION (Amending WSR 87-24-051, filed 11/30/87)

**WAC 296-62-07357 Definitions.** For the purpose of WAC 296-62-07355 through 296-62-07389, the following definitions shall apply:

~~((1) "Action level" means))~~ **Action level.** A concentration of airborne EtO of 0.5 ppm calculated as an eight-hour time-weighted average.

~~((2) "Authorized person" means))~~ **Authorized person.** Any person specifically authorized by the employer whose duties require the person to enter a regulated area, or any person entering such an area as a designated representative of employees for the purpose of exercising the right to observe monitoring and measuring procedures under WAC 296-62-07377, or any other person authorized by chapter 49.17 RCW or regulations issued under chapter 49.17 RCW.

~~((3) "Director" means))~~ **Director.** The director of the department of labor and industries, or designee.

~~((4) "Emergency" means))~~ **Emergency.** Any occurrence such as, but not limited to, equipment failure, rupture of containers, or failure of control equipment that is likely to or does result in an unexpected significant release of EtO.

~~((5) "Employee exposure" means))~~ **Employee exposure.** Exposure to airborne EtO which would occur if the employee were not using respiratory protective equipment.

~~((6) "Ethylene oxide" or "EtO" means))~~ **Ethylene oxide or EtO.** The three-membered ring organic compound with chemical formula C<sub>2</sub>H<sub>4</sub>O.

AMENDATORY SECTION (Amending WSR 88-23-054, filed 11/14/88)

**WAC 296-62-07359 Permissible exposure limits (PEL).** (1) Eight-hour time-weighted average (TWA). The employer ~~((shall))~~ **must** ensure that no employee is exposed to an airborne concentration of EtO in excess of one part EtO per million parts of air (1 ppm) as an eight-hour time-weighted average. (Eight-hour TWA.)

(2) Excursion limit. The employer ~~((shall))~~ **must** ensure that no employee is exposed to an airborne concentration of EtO in excess of five parts of EtO per million parts of air (5 ppm) as averaged over a sampling period of fifteen minutes.

AMENDATORY SECTION (Amending WSR 88-23-054, filed 11/14/88)

**WAC 296-62-07361 Exposure monitoring.** (1) General.

(a) Determinations of employee exposure ~~((shall))~~ **must** be made from breathing zone air samples that are representative of the eight-hour TWA and fifteen-minute short-term exposures of each employee.

(b) Representative eight-hour TWA employee exposure ~~((shall))~~ **must** be determined on the basis of one or more samples representing full-shift exposure for each shift for each job classification in each work area. Representative fifteen-minute short-term employee exposures ~~((shall))~~ **must** be determined on the basis of one or more samples representing fifteen-minute exposures associated with operations that are most likely to produce exposures above the excursion limit for each shift for each job classification in each work area.

(c) Where the employer can document that exposure levels are equivalent for similar operations in different work shifts, the employer need only determine representative employee exposure for that operation during one shift.

(2) Initial monitoring.

(a) Each employer who has a workplace or work operation covered by WAC 296-62-07355 through 296-62-07389, except as provided in WAC 296-62-07355(2) or (b) of this subsection, ~~((shall))~~ **must** perform initial monitoring to determine accurately the airborne concentrations of EtO to which employees may be exposed.

(b) Where the employer has monitored after June 15, 1983, and the monitoring satisfies all other requirements of WAC 296-62-07355 through 296-62-07389, the employer may rely on such earlier monitoring results to satisfy the requirements of (a) of this subsection.

(c) Where the employer has previously monitored for the excursion limit and the monitoring satisfies all other requirements of this section, the employer may rely on such earlier monitoring results to satisfy the requirements of (a) of this subsection.

(3) Monitoring frequency (periodic monitoring).

(a) If the monitoring required by subsection (2) of this section reveals employee exposure at or above the action level but at or below the eight-hour TWA, the employer ~~((shall))~~ **must** repeat such monitoring for each such employee at least every six months.

(b) If the monitoring required by subsection (2)(a) of this section reveals employee exposure above the eight-hour TWA, the employer ~~((shall))~~ **must** repeat such monitoring for each such employee at least every three months.

(c) The employer may alter the monitoring schedule from quarterly to semiannually for any employee for whom two consecutive measurements taken at least seven days apart indicate that the employee's exposure has decreased to or below the eight-hour TWA.

(d) If the monitoring required by subsection (2)(a) of this section reveals employee exposure above the fifteen-minute excursion limit, the employer shall repeat such monitoring for each such employee at least every three months, and more often as necessary to evaluate the employee's short-term exposures.

(4) Termination of monitoring.

(a) If the initial monitoring required by subsection (2)(a) of this section reveals employee exposure to be below the action level, the employer may discontinue TWA monitoring for those employees whose exposures are represented by the initial monitoring.

(b) If the periodic monitoring required by subsection (3) of this section reveals that employee exposures, as indicated by at least two consecutive measurements taken at least seven days apart, are below the action level, the employer may discontinue TWA monitoring for those employees whose exposures are represented by such monitoring.

(c) If the initial monitoring required by subsection (2)(a) of this section reveals the employee exposure to be at or below the excursion limit, the employer may discontinue excursion limit monitoring for those employees whose exposures are represented by the initial monitoring.

(d) If the periodic monitoring required by subsection (3) of this section reveals that employee exposures, as indicated by at least two consecutive measurements taken at least seven days apart, are at or below the excursion limit, the employer may discontinue excursion limit monitoring for those

employees whose exposures are represented by such monitoring.

(5) Additional monitoring. Notwithstanding the provisions of subsection (4) of this section, the employer ((shall)) must institute the exposure monitoring required under subsections (2)(a) and (3) of this section whenever there has been a change in the production, process, control equipment, personnel or work practices that may result in new or additional exposures to EtO or when the employer has any reason to suspect that a change may result in new or additional exposures.

(6) Accuracy of monitoring.

(a) Monitoring ((shall)) must be accurate, to a confidence level of ninety-five percent, to within plus or minus twenty-five percent for airborne concentrations of EtO at the 1 ppm TWA and to within plus or minus thirty-five percent for airborne concentrations of EtO at the action level of 0.5 ppm.

(b) Monitoring ((shall)) must be accurate, to a confidence level of ninety-five percent, to within plus or minus thirty-five percent for airborne concentrations of EtO at the excursion limit.

(7) Employee notification of monitoring results.

(a) The employer ((shall)) must, within fifteen working days after the receipt of the results of any monitoring performed under WAC 296-62-07355 through 296-62-07389, notify the affected employee of these results in writing either individually or by posting of results in an appropriate location that is accessible to affected employees.

(b) The written notification required by (a) of this subsection ((shall)) must contain the corrective action being taken by the employer to reduce employee exposure to or below the TWA and/or excursion limit, wherever monitoring results indicated that the TWA and/or excursion limit has been exceeded.

AMENDATORY SECTION (Amending WSR 88-23-054, filed 11/14/88)

**WAC 296-62-07363 Regulated areas.** (1) The employer ((shall)) must establish a regulated area wherever occupational exposures to airborne concentrations of EtO may exceed the TWA or wherever the EtO concentration exceeds or can reasonably be expected to exceed the excursion limit.

(2) Access to regulated areas ((shall)) must be limited to authorized persons.

(3) Regulated areas ((shall)) must be demarcated in any manner that minimizes the number of employees within the regulated area.

AMENDATORY SECTION (Amending WSR 88-23-054, filed 11/14/88)

**WAC 296-62-07365 Methods of compliance.** (1) Engineering controls and work practices.

(a) The employer ((shall)) must institute engineering controls and work practices to reduce and maintain employee exposure to or below the TWA and to or below the excursion limit, except to the extent that such controls are not feasible.

(b) Wherever the feasible engineering controls and work practices that can be instituted are not sufficient to reduce employee exposure to or below the TWA and to or below the excursion limit, the employer ((shall)) must use them to reduce employee exposure to the lowest levels achievable by these controls and ((shall)) must supplement them by the use of respiratory protection that complies with the requirements of WAC 296-62-07367.

(c) Engineering controls are generally infeasible for the following operations: Collection of quality assurance sampling from sterilized materials removal of biological indicators from sterilized materials: Loading and unloading of tank cars; changing of ethylene oxide tanks on sterilizers; and vessel cleaning. For these operations, engineering controls are required only where the director demonstrates that such controls are feasible.

(2) Compliance program.

(a) Where the TWA or excursion limit is exceeded, the employer ((shall)) must establish and implement a written program to reduce employee exposure to or below the TWA and to or below the excursion limit by means of engineering and work practice controls, as required by subsection (1) of this section, and by the use of respiratory protection where required or permitted under WAC 296-62-07355 through 296-62-07389.

(b) The compliance program ((shall)) must include a schedule for periodic leak detection surveys and a written plan for emergency situations, as specified in WAC 296-62-07369 (1)(a).

(c) Written plans for a program required in this subsection ((shall)) must be developed and furnished upon request for examination and copying to the director, affected employees and designated employee representatives. Such plans ((shall)) must be reviewed at least every twelve months, and ((shall)) must be updated as necessary to reflect significant changes in the status of the employer's compliance program.

(d) The employer ((shall)) must not implement a schedule of employee rotation as a means of compliance with the TWA or excursion limit.

AMENDATORY SECTION (Amending WSR 99-10-071, filed 5/4/99, effective 9/1/99)

**WAC 296-62-07369 Emergency situations.** (1) Written plan.

(a) A written plan for emergency situations ((shall)) must be developed for each workplace where there is a possibility of an emergency. Appropriate portions of the plan ((shall)) must be implemented in the event of an emergency.

(b) The plan ((shall)) must specifically provide that employees engaged in correcting emergency conditions ((shall)) must be equipped with respiratory protection as required by WAC 296-62-07367 until the emergency is abated.

(c) The plan ((shall)) must include the elements prescribed in WAC 296-24-567, "Employee emergency plans and fire prevention plans."

(2) Alerting employees. Where there is the possibility of employee exposure to EtO due to an emergency, means ((shall)) must be developed to alert potentially affected

employees of such occurrences promptly. Affected employees ~~((shall))~~ must be immediately evacuated from the area in the event that an emergency occurs.

AMENDATORY SECTION (Amending WSR 87-24-051, filed 11/30/87)

**WAC 296-62-07371 Medical surveillance.** (1) General.

(a) Employees covered.

(i) The employer ~~((shall))~~ must institute a medical surveillance program for all employees who are or may be exposed to EtO at or above the action level, without regard to the use of respirators, for at least thirty days a year.

(ii) The employer ~~((shall))~~ must make available medical examinations and consultations to all employees who have been exposed to EtO in an emergency situation.

(b) Examination by a physician. The employer ~~((shall))~~ must ensure that all medical examinations and procedures are performed by or under the supervision of a licensed physician, and are provided without cost to the employee, without loss of pay, and at a reasonable time and place.

(2) Medical examinations and consultations.

(a) Frequency. The employer ~~((shall))~~ must make available medical examinations and consultations to each employee covered under subsection (1)(a) of this section on the following schedules:

(i) Prior to assignment of the employee to an area where exposure may be at or above the action level for at least thirty days a year.

(ii) At least annually each employee exposed at or above the action level for at least thirty days in the past year.

(iii) At termination of employment or reassignment to an area where exposure to EtO is not at or above the action level for at least thirty days a year.

(iv) As medically appropriate for any employee exposed during an emergency.

(v) As soon as possible, upon notification by an employee either (A) that the employee has developed signs or symptoms indicating possible overexposure to EtO, or (B) that the employee desires medical advice concerning the effects of current or past exposure to EtO on the employee's ability to produce a healthy child.

(vi) If the examining physician determines that any of the examinations should be provided more frequently than specified, the employer ~~((shall))~~ must provide such examinations to affected employees at the frequencies recommended by the physician.

(b) Content.

(i) Medical examinations made available pursuant to (a)(i) through (iv) of this subsection ~~((shall))~~ must include:

(A) A medical and work history with special emphasis directed to symptoms related to the pulmonary, hematologic, neurologic, and reproductive systems and to the eyes and skin.

(B) A physical examination with particular emphasis given to the pulmonary, hematologic, neurologic, and reproductive systems and to the eyes and skin.

(C) A complete blood count to include at least a white cell count (including differential cell count), red cell count, hematocrit, and hemoglobin.

(D) Any laboratory or other test which the examining physician deems necessary by sound medical practice.

(ii) The content of medical examinations or consultation made available pursuant to (a)(i)(v) of this subsection shall be determined by the examining physician, and shall include pregnancy testing or laboratory evaluation of fertility, if requested by the employee and deemed appropriate by the physician.

(3) Information provided to the physician. The employer ~~((shall))~~ must provide the following information to the examining physician:

(a) A copy of WAC 296-62-07355 through 296-62-07389.

(b) A description of the affected employee's duties as they relate to the employee's exposure.

(c) The employee's representative exposure level or anticipated exposure level.

(d) A description of any personal protective and respiratory equipment used or to be used.

(e) Information from previous medical examinations of the affected employee that is not otherwise available to the examining physician.

(4) Physician's written opinion.

(a) The employer ~~((shall))~~ must obtain a written opinion from the examining physician. This written opinion ~~((shall))~~ must contain the results of the medical examination and ~~((shall))~~ must include:

(i) The physician's opinion as to whether the employee has any detected medical conditions that would place the employee at an increased risk of material health impairment from exposure to EtO;

(ii) Any recommended limitations on the employee or upon the use of personal protective equipment such as clothing or respirators; and

(iii) A statement that the employee has been informed by the physician of the results of the medical examination and of any medical conditions resulting from EtO exposure that require further explanation or treatment.

(b) The employer ~~((shall))~~ must instruct the physician not to reveal in the written opinion given to the employer specific findings or diagnoses unrelated to occupational exposure to EtO.

(c) The employer ~~((shall))~~ must provide a copy of the physician's written opinion to the affected employee within fifteen days from its receipt.

AMENDATORY SECTION (Amending WSR 14-07-086, filed 3/18/14, effective 5/1/14)

**WAC 296-62-07373 Communication of EtO hazards.**

(1) Hazard communication - General.

(a) Chemical manufacturers, importers, distributors and employers ~~((shall))~~ must comply with all requirements of the Hazard Communication Standard (HCS), WAC 296-901-140 for EtO.

(b) In classifying the hazards of EtO at least the following hazards are to be addressed: Cancer; reproductive effects;

mutagenicity; central nervous system; skin sensitization; skin, eye and respiratory tract irritation; acute toxicity effects; and flammability.

(c) Employers ~~((shall))~~ must include EtO in the hazard communication program established to comply with the HCS, WAC 296-901-140. Employers ~~((shall))~~ must ensure that each employee has access to labels on containers of EtO and to safety data sheets, and is trained in accordance with the requirements of HCS and WAC 296-855-20090.

(2) Signs and labels.

(a) Signs.

~~((i))~~ The employer ~~((shall))~~ must post and maintain legible signs demarcating regulated areas and entrances or accessways to regulated areas that bear the following legend:

DANGER  
ETHYLENE OXIDE  
MAY CAUSE CANCER  
MAY DAMAGE FERTILITY OR THE UNBORN CHILD  
RESPIRATORY PROTECTION AND PROTECTIVE CLOTHING MAY  
BE REQUIRED IN THIS AREA  
AUTHORIZED PERSONNEL ONLY

~~((ii)) Prior to June 1, 2016, employers may use the following legend in lieu of that specified in (a)(i) of this subsection:~~

DANGER  
ETHYLENE OXIDE  
CANCER HAZARD AND REPRODUCTIVE HAZARD  
AUTHORIZED PERSONNEL ONLY  
RESPIRATORS AND PROTECTIVE CLOTHING MAY BE REQUIRED  
TO BE WORN IN THIS AREA))

(b) Labels.

~~((i))~~ The employer ~~((shall))~~ must ensure that labels are affixed to all containers of EtO whose contents are capable of causing employee exposure at or above the action level or whose contents may reasonably be foreseen to cause employee exposure above the excursion limit, and that the labels remain affixed when the containers of EtO leave the workplace. For the purpose of this subsection, reaction vessels, storage tanks, and pipes or piping systems are not considered to be containers.

~~((ii)) Prior to June 1, 2015, employers may include the following information on containers of EtO in lieu of the labeling requirements in subsection (1)(a) of this section:~~

~~(A)~~

DANGER  
CONTAINS ETHYLENE OXIDE  
CANCER HAZARD AND REPRODUCTIVE HAZARD; and

~~(B) A warning statement against breathing airborne concentrations of EtO.~~

~~(c) The labeling requirements under WAC 296-62-07355 through 296-62-07389 do not apply where EtO is used as a pesticide, as such term is defined in the Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C. 136 et seq.), when it is labeled pursuant to that act and regulations issued under that act by the Environmental Protection Agency.~~

~~(d))~~ (c) The details of the hazard communication program developed by the employer, including an explanation of the labeling system and how employees can obtain and use the appropriate hazard information.

(3) Safety data sheets. Employers who are manufacturers or importers of EtO ~~((shall))~~ must comply with the requirements regarding development of safety data sheets as specified in WAC 296-901-14014 of the Hazard Communication Standard.

(4) Information and training.

(a) The employer ~~((shall))~~ must provide employees who are potentially exposed to EtO at or above the action level or above the excursion limit with information and training on EtO at the time of initial assignment and at least annually thereafter.

(b) Employees ~~((shall))~~ must be informed of the following:

(i) The requirements of WAC 296-62-07353 through 296-62-07389 with an explanation of its contents, including Appendices A and B;

(ii) Any operations in their work area where EtO is present;

(iii) The location and availability of the written EtO final rule; and

(iv) The medical surveillance program required by WAC 296-62-07371 with an explanation of the information in Appendix C.

(c) Employee training ~~((shall))~~ must include at least:

(i) Methods and observations that may be used to detect the presence or release of EtO in the work area (such as monitoring conducted by the employer, continuous monitoring devices, etc.);

(ii) The physical and health hazards of EtO;

(iii) The measures employees can take to protect themselves from hazards associated with EtO exposure, including specific procedures the employer has implemented to protect employees from exposure to EtO, such as work practices, emergency procedures, and personal protective equipment to be used; and

(iv) The details of the hazard communication program developed by the employer, including an explanation of the labeling system and how employees can obtain and use the appropriate hazard information.

AMENDATORY SECTION (Amending WSR 04-10-026, filed 4/27/04, effective 8/1/04)

**WAC 296-62-07375 Recordkeeping.** (1) Objective data for exempted operations.

(a) Where the processing, use, or handling of products made from or containing EtO are exempted from other requirements of WAC 296-62-07355 through 296-62-07389 under WAC 296-62-07355, or where objective data have been relied on in lieu of initial monitoring under WAC 296-62-07361 (2)(b), the employer ~~((shall))~~ must establish and maintain an accurate record of objective data reasonably relied upon in support of the exemption.

(b) This record ~~((shall))~~ must include at least the following information:

(i) The product qualifying for exemption;

(ii) The source of the objective data;

(iii) The testing protocol, results of testing, and/or analysis of the material for the release of EtO;

(iv) A description of the operation exempted and how the data support the exemption; and

(v) Other data relevant to the operations, materials, processing, or employee exposures covered by the exemption.

(c) The employer ~~((shall))~~ must maintain this record for the duration of the employer's reliance upon such objective data.

(2) Exposure measurements.

(a) The employer ~~((shall))~~ must keep an accurate record of all measurements taken to monitor employee exposure to EtO as prescribed in WAC 296-62-07361.

(b) This record ~~((shall))~~ must include at least the following information:

(i) The date of measurement;

(ii) The operation involving exposure to EtO which is being monitored;

(iii) Sampling and analytical methods used and evidence of their accuracy;

(iv) Number, duration, and results of samples taken;

(v) Type of protective devices worn, if any; and

(vi) Name, Social Security number and exposure of the employees whose exposures are represented.

(c) The employer ~~((shall))~~ must maintain this record for at least thirty years, in accordance with chapter 296-802 WAC.

(3) Medical surveillance.

(a) The employer ~~((shall))~~ must establish and maintain an accurate record for each employee subject to medical surveillance by WAC 296-62-07371 (1)(a), in accordance with chapter 296-802 WAC.

(b) The record ~~((shall))~~ must include at least the following information:

(i) The name and Social Security number of the employee;

(ii) Physicians' written opinions;

(iii) Any employee medical complaints related to exposure to EtO; and

(iv) A copy of the information provided to the physician as required by WAC 296-62-07371(3).

(c) The employer ~~((shall))~~ must ensure that this record is maintained for the duration of employment plus thirty years, in accordance with chapter 296-802 WAC.

(4) Availability.

(a) The employer, upon written request, ~~((shall))~~ must make all records required to be maintained by WAC 296-62-07355 through 296-62-07389 available to the director for examination and copying.

(b) The employer, upon request, ~~((shall))~~ must make any exemption and exposure records required by WAC 296-62-07377 (1) and (2) available for examination and copying to affected employees, former employees, designated representatives and the director, in accordance with chapter 296-802 WAC.

(c) The employer, upon request, ~~((shall))~~ must make employee medical records required by subsection (3) of this section available for examination and copying to the subject employee, anyone having the specific written consent of the subject employee, and the director, in accordance with chapter 296-802 WAC.

(5) Transfer of records.

(a) The employer ~~((shall))~~ must comply with the requirements concerning transfer of records set forth in chapter 296-802 WAC.

(b) Whenever the employer ceases to do business and there is no successor employer to receive and retain the records for the prescribed period, the employer ~~((shall))~~ must notify the director at least ninety days prior to disposal and transmit them to the director.

AMENDATORY SECTION (Amending WSR 87-24-051, filed 11/30/87)

**WAC 296-62-07377 Observation of monitoring.** (1) Employee observation. The employer ~~((shall))~~ must provide affected employees or their designated representatives an opportunity to observe any monitoring of employee exposure to EtO conducted in accordance with WAC 296-62-07361.

(2) Observation procedures. When observation of the monitoring of employee exposure to EtO requires entry into an area where the use of protective clothing or equipment is required, the observer ~~((shall))~~ must be provided with and be required to use such clothing and equipment and ~~((shall))~~ must comply with all other applicable safety and health procedures.

AMENDATORY SECTION (Amending WSR 93-21-075, filed 10/20/93, effective 12/1/93)

**WAC 296-62-07403 Definitions.** ~~((1) Action level (AL) is defined as))~~ **Action level (AL).** An airborne concentration of cadmium of 2.5 micrograms per cubic meter of air (2.5 µg/m<sup>3</sup>), calculated as an 8-hour time-weighted average (TWA).

~~((2) Authorized person means))~~ **Authorized person.** Any person authorized by the employer and required by work duties to be present in regulated areas or any person authorized by the WISH Act or regulations issued under it to be in regulated areas.

~~((3) Director means))~~ **Director.** The director of the department of labor and industries, or authorized representatives.

~~((4))~~ **Employee exposure and similar language referring to the air cadmium level to which an employee is exposed** ~~((means))~~. The exposure to airborne cadmium that would occur if the employee were not using respiratory protective equipment.

~~((5))~~ **Final medical determination** ~~((is))~~. The written medical opinion of the employee's health status by the examining physician under WAC 296-62-07423 (3) through (12) or, if multiple physician review under WAC 296-62-07423(13) or the alternative physician determination under WAC 296-62-07423(14) is invoked, it is the final, written medical finding, recommendation or determination that emerges from that process.

~~((6))~~ **High-efficiency particulate air (HEPA) filter** ~~((means))~~. A filter capable of trapping and retaining at least 99.97 percent of mono-dispersed particles of 0.3 micrometers in diameter.

~~((7) Regulated area means))~~ **Regulated area.** An area demarcated by the employer where an employee's exposure

to airborne concentrations of cadmium exceeds, or can reasonably be expected to exceed the permissible exposure limit (PEL).

AMENDATORY SECTION (Amending WSR 93-07-044, filed 3/13/93, effective 4/27/93)

**WAC 296-62-07405 Permissible exposure limit (PEL).** The employer ~~((shall assure))~~ must ensure that no employee is exposed to an airborne concentration of cadmium in excess of five micrograms per cubic meter of air (5 µg/m<sup>3</sup>), calculated as an 8-hour time-weighted average exposure (TWA).

AMENDATORY SECTION (Amending WSR 93-07-044, filed 3/13/93, effective 4/27/93)

**WAC 296-62-07407 Exposure monitoring.** (1) General.

(a) Each employer who has a workplace or work operation covered by this section ~~((shall))~~ must determine if any employee may be exposed to cadmium at or above the action level.

(b) Determinations of employee exposure ~~((shall))~~ must be made from breathing zone air samples that reflect the monitored employee's regular, daily 8-hour TWA exposure to cadmium.

(c) 8-hour TWA exposures ~~((shall))~~ must be determined for each employee on the basis of one or more personal breathing zone air samples reflecting full shift exposure on each shift, for each job classification, in each work area. Where several employees perform the same job tasks, in the same job classification, on the same shift, in the same work area, and the length, duration, and level of cadmium exposures are similar, an employer may sample a representative fraction of the employees instead of all employees in order to meet this requirement. In representative sampling, the employer ~~((shall))~~ must sample the employee(s) expected to have the highest cadmium exposures.

(2) Specific.

(a) Initial monitoring. Except as provided for in (b) and (c) of this subsection, the employer ~~((shall))~~ must monitor employee exposures and ~~((shall))~~ must base initial determinations on the monitoring results.

(b) Where the employer has monitored after September 14, 1991, under conditions that in all important aspects closely resemble those currently prevailing and where that monitoring satisfies all other requirements of this section, including the accuracy and confidence levels of subsection (6) of this section, the employer may rely on such earlier monitoring results to satisfy the requirements of WAC 296-62-07427 (2)(a).

(c) Where the employer has objective data, as defined in WAC 296-62-07427(2), demonstrating that employee exposure to cadmium will not exceed the action level under the expected conditions of processing, use, or handling, the employer may rely upon such data instead of implementing initial monitoring.

(3) Monitoring frequency (periodic monitoring).

(a) If the initial monitoring or periodic monitoring reveals employee exposures to be at or above the action level, the employer ~~((shall))~~ must monitor at a frequency and pattern needed to represent the levels of exposure of employees and where exposures are above the PEL to ~~((assure))~~ ensure the adequacy of respiratory selection and the effectiveness of engineering and work practice controls. However, such exposure monitoring ~~((shall))~~ must be performed at least every six months. The employer, at a minimum, ~~((shall))~~ must continue these semiannual measurements unless and until the conditions set out in (b) of this subsection are met.

(b) If the initial monitoring or the periodic monitoring indicates that employee exposures are below the action level and that result is confirmed by the results of another monitoring taken at least seven days later, the employer may discontinue the monitoring for those employees whose exposures are represented by such monitoring.

(4) Additional monitoring. The employer also ~~((shall))~~ must institute the exposure monitoring required under (2)(a) and (3) of this section whenever there has been a change in the raw materials, equipment, personnel, work practices, or finished products that may result in additional employees being exposed to cadmium at or above the action level or in employees already exposed to cadmium at or above the action level being exposed above the PEL, or whenever the employer has any reason to suspect that any other change might result in such further exposure.

(5) Employee notification of monitoring results.

(a) Within fifteen working days after the receipt of the results of any monitoring performed under this section, the employer ~~((shall))~~ must notify each affected employee individually in writing of the results. In addition, within the same time period the employer ~~((shall))~~ must post the results of the exposure monitoring in an appropriate location that is accessible to all affected employees.

(b) Wherever monitoring results indicate that employee exposure exceeds the PEL, the employer ~~((shall))~~ must include in the written notice a statement that the PEL has been exceeded and a description of the corrective action being taken by the employer to reduce employee exposure to or below the PEL.

(6) Accuracy of measurement. The employer ~~((shall))~~ must use a method of monitoring and analysis that has an accuracy of not less than plus or minus twenty-five percent, with a confidence level of ninety-five percent, for airborne concentrations of cadmium at or above the action level, the permissible exposure limit (PEL), and the separate engineering control air limit (SECAL).

AMENDATORY SECTION (Amending WSR 93-07-044, filed 3/13/93, effective 4/27/93)

**WAC 296-62-07409 Regulated areas.** (1) Establishment. The employer ~~((shall))~~ must establish a regulated area wherever an employee's exposure to airborne concentrations of cadmium is, or can reasonably be expected to be in excess of the permissible exposure limit (PEL).

(2) Demarcation. Regulated areas ~~((shall))~~ must be demarcated from the rest of the workplace in any manner that

adequately establishes and alerts employees of the boundaries of the regulated area.

(3) Access. Access to regulated areas (~~(shall)~~) must be limited to authorized persons.

(4) Provision of respirators. Each person entering a regulated area (~~(shall)~~) must be supplied with and required to use a respirator, selected in accordance with WAC 296-62-07413 (2).

(5) Prohibited activities. The employer (~~(shall assure)~~) must ensure that employees do not eat, drink, smoke, chew tobacco or gum, or apply cosmetics in regulated areas, carry the products associated with these activities into regulated areas, or store such products in those areas.

**AMENDATORY SECTION** (Amending WSR 93-21-075, filed 10/20/93, effective 12/1/93)

**WAC 296-62-07411 Methods of compliance.** (1) Compliance hierarchy.

(a) Except as specified in (b), (c), and (d) of this subsection, the employer (~~(shall)~~) must implement engineering and work practice controls to reduce and maintain employee exposure to cadmium at or below the PEL, except to the extent that the employer can demonstrate that such controls are not feasible.

(b) Except as specified in (c) and (d) of this subsection, in industries where a separate engineering control air limit (SECAL) has been specified for particular processes (Table ((+)) I of this subsection), the employer (~~(shall)~~) must implement engineering and work practice controls to reduce and maintain employee exposure at or below the SECAL, except to the extent that the employer can demonstrate that such controls are not feasible.

Table I.—Separate Engineering Control Airborne Limits (SECALs) for Processes in Selected Industries

Industry	Process	SECAL (µg/m <sup>3</sup> )
Nickel cadmium battery	Plate making, plate preparation	50
	All other processes	15
Zinc/Cadmium refining*	Cadmium refining, casting, melting, oxide production, sinter plant	50
	All other processes	15
Pigment manufacture	Calcine, crushing, milling, blending	50
	All other processes	15
Stabilizers*	Cadmium oxide charging, crushing, drying, blending	50
Lead smelting*	Sinter plant, blast furnace, bag-house, yard area	50
Plating*	Mechanical plating	15

\* Processes in these industries that are not specified in this table must achieve the PEL using engineering controls and work practices as required in (a) of this subsection.

(c) The requirement to implement engineering and work practice controls to achieve the PEL or, where applicable, the SECAL does not apply where the employer demonstrates the following:

- (i) The employee is only intermittently exposed; and
- (ii) The employee is not exposed above the PEL on thirty or more days per year (twelve consecutive months).

(d) Wherever engineering and work practice controls are required and are not sufficient to reduce employee exposure to or below the PEL or, where applicable, the SECAL, the employer nonetheless (~~(shall)~~) must implement such controls to reduce exposures to the lowest levels achievable. The employer (~~(shall)~~) must supplement such controls with respiratory protection that complies with the requirements of WAC 296-62-07413 and the PEL.

(e) The employer (~~(shall)~~) must not use employee rotation as a method of compliance.

(2) Compliance program.

(a) Where the PEL is exceeded, the employer (~~(shall)~~) must establish and implement a written compliance program to reduce employee exposure to or below the PEL by means of engineering and work practice controls, as required by subsection (1) of this section. To the extent that engineering and work practice controls cannot reduce exposures to or below the PEL, the employer (~~(shall)~~) must include in the written compliance program the use of appropriate respiratory protection to achieve compliance with the PEL.

(b) Written compliance programs (~~(shall)~~) must include at least the following:

(i) A description of each operation in which cadmium is emitted; e.g., machinery used, material processed, controls in place, crew size, employee job responsibilities, operating procedures, and maintenance practices;

(ii) A description of the specific means that will be employed to achieve compliance, including engineering plans and studies used to determine methods selected for controlling exposure to cadmium, as well as, where necessary, the use of appropriate respiratory protection to achieve the PEL;

(iii) A report of the technology considered in meeting the PEL;

(iv) Air monitoring data that document the sources of cadmium emissions;

(v) A detailed schedule for implementation of the program, including documentation such as copies of purchase orders for equipment, construction contracts, etc.;

(vi) A work practice program that includes items required under WAC 296-62-07415, 296-62-07417, and 296-62-07419;

(vii) A written plan for emergency situations, as specified in WAC 296-62-07415; and

(viii) Other relevant information.

(c) The written compliance programs (~~(shall)~~) must be reviewed and updated at least annually, or more often if necessary, to reflect significant changes in the employer's compliance status.

(d) Written compliance programs (~~(shall)~~) must be provided upon request for examination and copying to affected employees, designated employee representatives, and the director.

(3) Mechanical ventilation.

(a) When ventilation is used to control exposure, measurements that demonstrate the effectiveness of the system in controlling exposure, such as capture velocity, duct velocity,

or static pressure (~~(shall)~~) must be made as necessary to maintain its effectiveness.

(b) Measurements of the system's effectiveness in controlling exposure (~~(shall)~~) must be made as necessary within five working days of any change in production, process, or control that might result in a significant increase in employee exposure to cadmium.

(c) Recirculation of air. If air from exhaust ventilation is recirculated into the workplace, the system (~~(shall)~~) must have a high efficiency filter and be monitored to (~~(assure)~~) ensure effectiveness.

(d) Procedures (~~(shall)~~) must be developed and implemented to minimize employee exposure to cadmium when maintenance of ventilation systems and changing of filters is being conducted.

AMENDATORY SECTION (Amending WSR 93-07-044, filed 3/13/93, effective 4/27/93)

**WAC 296-62-07415 Emergency situations.** The employer (~~(shall)~~) must develop and implement a written plan for dealing with emergency situations involving substantial releases of airborne cadmium. The plan (~~(shall)~~) must include provisions for the use of appropriate respirators and personal protective equipment. In addition, employees not essential to correcting the emergency situation (~~(shall)~~) must be restricted from the area and normal operations halted in that area until the emergency is abated.

AMENDATORY SECTION (Amending WSR 01-11-038, filed 5/9/01, effective 9/1/01)

**WAC 296-62-07417 Protective work clothing and equipment.** (1) Provision and use. If an employee is exposed to airborne cadmium above the PEL or where skin or eye irritation is associated with cadmium exposure at any level, the employer (~~(shall)~~) must provide at no cost to the employee, and (~~(assure)~~) ensure that the employee uses, appropriate protective work clothing and equipment that prevents contamination of the employee and the employee's garments. Protective work clothing and equipment includes, but is not limited to:

- (a) Coveralls or similar full-body work clothing;
- (b) Gloves, head coverings, and boots or foot coverings; and
- (c) Face shields, vented goggles, or other appropriate protective equipment that complies with WAC 296-800-160.

(2) Removal and storage.

(a) The employer (~~(shall-assure)~~) must ensure that employees remove all protective clothing and equipment contaminated with cadmium at the completion of the work shift and do so only in change rooms provided in accordance with WAC 296-62-07419(1).

(b) The employer (~~(shall-assure)~~) must ensure that no employee takes cadmium-contaminated protective clothing or equipment from the workplace, except for employees authorized to do so for purposes of laundering, cleaning, maintaining, or disposing of cadmium contaminated protective clothing and equipment at an appropriate location or facility away from the workplace.

(c) The employer (~~(shall-assure)~~) must ensure that contaminated protective clothing and equipment, when removed for laundering, cleaning, maintenance, or disposal, is placed and stored in sealed, impermeable bags or other closed, impermeable containers that are designed to prevent dispersion of cadmium dust.

(d) The employer (~~(shall-assure)~~) must ensure that bags or containers of contaminated protective clothing and equipment that are to be taken out of the change rooms or the workplace for laundering, cleaning, maintenance, or disposal (~~(shall)~~) must bear labels in accordance with WAC 296-62-07425(3).

(3) Cleaning, replacement, and disposal.

(a) The employer (~~(shall)~~) must provide the protective clothing and equipment required by subsection (1) of this section in a clean and dry condition as often as necessary to maintain its effectiveness, but in any event at least weekly. The employer is responsible for cleaning and laundering the protective clothing and equipment required by this paragraph to maintain its effectiveness and is also responsible for disposing of such clothing and equipment.

(b) The employer also is responsible for repairing or replacing required protective clothing and equipment as needed to maintain its effectiveness. When rips or tears are detected while an employee is working they (~~(shall)~~) must be immediately mended, or the worksuit (~~(shall)~~) must be immediately replaced.

(c) The employer (~~(shall)~~) must prohibit the removal of cadmium from protective clothing and equipment by blowing, shaking, or any other means that disperses cadmium into the air.

(d) The employer (~~(shall-assure)~~) must ensure that any laundering of contaminated clothing or cleaning of contaminated equipment in the workplace is done in a manner that prevents the release of airborne cadmium in excess of the permissible exposure limit prescribed in WAC 296-62-07405.

(e) The employer (~~(shall)~~) must inform any person who launders or cleans protective clothing or equipment contaminated with cadmium of the potentially harmful effects of exposure to cadmium and that the clothing and equipment should be laundered or cleaned in a manner to effectively prevent the release of airborne cadmium in excess of the PEL.

AMENDATORY SECTION (Amending WSR 03-18-090, filed 9/2/03, effective 11/1/03)

**WAC 296-62-07419 Hygiene areas and practices.** (1) General. For employees whose airborne exposure to cadmium is above the PEL, the employer (~~(shall)~~) must provide clean change rooms, handwashing facilities, showers, and lunchroom facilities that comply with WAC 296-800-230.

(2) Change rooms. The employer (~~(shall-assure)~~) must ensure that change rooms are equipped with separate storage facilities for street clothes and for protective clothing and equipment, which are designed to prevent dispersion of cadmium and contamination of the employee's street clothes.

(3) Showers and handwashing facilities.

(a) The employer (~~(shall-assure)~~) must ensure that employees who are exposed to cadmium above the PEL shower during the end of the work shift.

(b) The employer (~~(shall assure)~~) must ensure that employees whose airborne exposure to cadmium is above the PEL wash their hands and faces prior to eating, drinking, smoking, chewing tobacco or gum, or applying cosmetics.

(4) Lunchroom facilities.

(a) The employer (~~(shall assure)~~) must ensure that the lunchroom facilities are readily accessible to employees, that tables for eating are maintained free of cadmium, and that no employee in a lunchroom facility is exposed at any time to cadmium at or above a concentration of 2.5 µg/m<sup>3</sup>.

(b) The employer (~~(shall assure)~~) must ensure that employees do not enter lunchroom facilities with protective work clothing or equipment unless surface cadmium has been removed from the clothing and equipment by HEPA vacuuming or some other method that removes cadmium dust without dispersing it.

AMENDATORY SECTION (Amending WSR 02-12-098, filed 6/5/02, effective 8/1/02)

**WAC 296-62-07421 Housekeeping.** (1) All surfaces (~~(shall)~~) must be maintained as free as practicable of accumulations of cadmium.

(2) All spills and sudden releases of material containing cadmium (~~(shall)~~) must be cleaned up as soon as possible.

(3) Surfaces contaminated with cadmium (~~(shall)~~) must, wherever possible, be cleaned by vacuuming or other methods that minimize the likelihood of cadmium becoming airborne.

(4) HEPA-filtered vacuuming equipment or equally effective filtration methods (~~(shall)~~) must be used for vacuuming. The equipment (~~(shall)~~) must be used and emptied in a manner that minimizes the reentry of cadmium into the workplace.

(5) Shoveling, dry or wet sweeping, and brushing may be used only where vacuuming or other methods that minimize the likelihood of cadmium becoming airborne have been tried and found not to be effective.

(6) Compressed air (~~(shall)~~) must not be used to remove cadmium from any surface unless the compressed air is used in conjunction with a ventilation system designed to capture the dust cloud created by the compressed air.

(7) Waste, scrap, debris, bags, containers, personal protective equipment, and clothing contaminated with cadmium and consigned for disposal must be collected and disposed of in sealed impermeable bags or other closed, impermeable containers. These bags and containers must be labeled in accordance with WAC 296-62-07425(3).

AMENDATORY SECTION (Amending WSR 93-21-075, filed 10/20/93, effective 12/1/93)

**WAC 296-62-07423 Medical surveillance.** (1) General.

(a) Scope.

(i) Currently exposed. The employer (~~(shall)~~) must institute a medical surveillance program for all employees who are or may be exposed to cadmium at or above the action level unless the employer demonstrates that the employee is not, and will not be, exposed at or above the action level on

thirty or more days per year (twelve consecutive months); and

(ii) Previously exposed. The employer (~~(shall)~~) must also institute a medical surveillance program for all employees who prior to the effective date of this section might previously have been exposed to cadmium at or above the action level by the employer, unless the employer demonstrates that the employee did not prior to the effective date of this section work for the employer in jobs with exposure to cadmium for an aggregated total of more than sixty months.

(b) To determine an employee's fitness for using a respirator, the employer (~~(shall)~~) must provide the limited medical examination specified in subsection (6) of this section.

(c) The employer (~~(shall assure)~~) must ensure that all medical examinations and procedures required by this standard are performed by or under the supervision of a licensed physician, who has read and is familiar with the health effects WAC 296-62-07441, Appendix A, the regulatory text of this section, the protocol for sample handling and laboratory selection in WAC 296-62-07451, Appendix F and the questionnaire of WAC 296-62-07447, Appendix D. These examinations and procedures (~~(shall)~~) must be provided without cost to the employee and at a time and place that is reasonable and convenient to employees.

(d) The employer (~~(shall assure)~~) must ensure that the collecting and handling of biological samples of cadmium in urine (CdU), cadmium in blood (CdB), and beta-2 microglobulin in urine (β<sub>2</sub>-M) taken from employees under this section is done in a manner that (~~(assures)~~) ensures their reliability and that analysis of biological samples of cadmium in urine (CdU), cadmium in blood (CdB), and beta-2 microglobulin in urine (β<sub>2</sub>-M) taken from employees under this section is performed in laboratories with demonstrated proficiency for that particular analyte. (See WAC 296-62-07451, Appendix F.)

(2) Initial examination.

(a) The employer (~~(shall)~~) must provide an initial (pre-placement) examination to all employees covered by the medical surveillance program required in subsection (1)(a) of this section. The examination (~~(shall)~~) must be provided to those employees within thirty days after initial assignment to a job with exposure to cadmium or no later than ninety days after the effective date of this section, whichever date is later.

(b) The initial (preplacement) medical examination (~~(shall)~~) must include:

(i) A detailed medical and work history, with emphasis on: Past, present, and anticipated future exposure to cadmium; any history of renal, cardiovascular, respiratory, hematopoietic, reproductive, and/or musculo-skeletal system dysfunction; current usage of medication with potential nephrotoxic side-effects; and smoking history and current status; and

(ii) Biological monitoring that includes the following tests:

(A) Cadmium in urine (CdU), standardized to grams of creatinine (g/Cr);

(B) Beta-2 microglobulin in urine (β<sub>2</sub>-M), standardized to grams of creatinine (g/Cr), with pH specified, as described in WAC 296-62-07451, Appendix F; and

(C) Cadmium in blood (CdB), standardized to liters of whole blood (lwb).

(c) Recent examination: An initial examination is not required to be provided if adequate records show that the employee has been examined in accordance with the requirements of (b) of this subsection within the past twelve months. In that case, such records ((shall)) must be maintained as part of the employee's medical record and the prior exam ((shall)) must be treated as if it were an initial examination for the purposes of subsections (3) and (4) of this section.

(3) Actions triggered by initial biological monitoring:

(a) If the results of the initial biological monitoring tests show the employee's CdU level to be at or below 3 µg/g Cr, β<sub>2</sub>-M level to be at or below 300 µg/g Cr and CdB level to be at or below 5 µg/lwb, then:

(i) For currently exposed employees, who are subject to medical surveillance under subsection (1)(a)(i) of this section, the employer ((shall)) must provide the minimum level of periodic medical surveillance in accordance with the requirements in subsection (4)(a) of this section; and

(ii) For previously exposed employees, who are subject to medical surveillance under subsection (1)(a)(ii) of this section, the employer ((shall)) must provide biological monitoring for CdU, β<sub>2</sub>-M, and CdB one year after the initial biological monitoring and then the employer ((shall)) must comply with the requirements of subsection (4)(e) of this section.

(b) For all employees who are subject to medical surveillance under subsection (1)(a) of this section, if the results of the initial biological monitoring tests show the level of CdU to exceed 3 µg/g Cr, the level of β<sub>2</sub>-M to exceed 300 µg/g Cr, or the level of CdB to exceed 5 µg/lwb, the employer ((shall)) must:

(i) Within two weeks after receipt of biological monitoring results, reassess the employee's occupational exposure to cadmium as follows:

(A) Reassess the employee's work practices and personal hygiene;

(B) Reevaluate the employee's respirator use, if any, and the respirator program;

(C) Review the hygiene facilities;

(D) Reevaluate the maintenance and effectiveness of the relevant engineering controls;

(E) Assess the employee's smoking history and status;

(ii) Within thirty days after the exposure reassessment, specified in (b)(i) of this subsection, take reasonable steps to correct any deficiencies found in the reassessment that may be responsible for the employee's excess exposure to cadmium; and,

(iii) Within ninety days after receipt of biological monitoring results, provide a full medical examination to the employee in accordance with the requirements of WAC 296-62-07423 (4)(b). After completing the medical examination, the examining physician ((shall)) must determine in a written medical opinion whether to medically remove the employee. If the physician determines that medical removal is not necessary, then until the employee's CdU level falls to or below 3 µg/g Cr, β<sub>2</sub>-M level falls to or below 300 µg/g Cr and CdB level falls to or below 5 µg/lwb, the employer ((shall)) must:

(A) Provide biological monitoring in accordance with subsection (2)(b)(ii) of this section on a semiannual basis; and

(B) Provide annual medical examinations in accordance with subsection (4)(b) of this section.

(c) For all employees who are subject to medical surveillance under subsection (1)(a) of this section, if the results of the initial biological monitoring tests show the level of CdU to be in excess of 15 µg/g Cr, or the level of CdB to be in excess of 15 µg/lwb, or the level of β<sub>2</sub>-M to be in excess of 1,500 µg/g Cr, the employer ((shall)) must comply with the requirements of (b)(i) and (ii) of this subsection. Within ninety days after receipt of biological monitoring results, the employer ((shall)) must provide a full medical examination to the employee in accordance with the requirements of subsection (4)(b) of this section. After completing the medical examination, the examining physician ((shall)) must determine in a written medical opinion whether to medically remove the employee. However, if the initial biological monitoring results and the biological monitoring results obtained during the medical examination both show that: CdU exceeds 15 µg/g Cr; or CdB exceeds 15 µg/lwb; or β<sub>2</sub>-M exceeds 1500 µg/g Cr, and in addition CdU exceeds 3 µg/g Cr or CdB exceeds 5 µg/liter of whole blood, then the physician ((shall)) must medically remove the employee from exposure to cadmium at or above the action level. If the second set of biological monitoring results obtained during the medical examination does not show that a mandatory removal trigger level has been exceeded, then the employee is not required to be removed by the mandatory provisions of this section. If the employee is not required to be removed by the mandatory provisions of this section or by the physician's determination, then until the employee's CdU level falls to or below 3 µg/g Cr, β<sub>2</sub>-M level falls to or below 300 µg/g Cr and CdB level falls to or below 5 µg/lwb, the employer ((shall)) must:

(i) Periodically reassess the employee's occupational exposure to cadmium;

(ii) Provide biological monitoring in accordance with subsection (2)(b)(ii) of this section on a quarterly basis; and

(iii) Provide semiannual medical examinations in accordance with subsection (4)(b) of this section.

(d) For all employees to whom medical surveillance is provided, beginning on January 1, 1999, and in lieu of (a) through (c) of this subsection:

(i) If the results of the initial biological monitoring tests show the employee's CdU level to be at or below 3 µg/g Cr, β<sub>2</sub>-M level to be at or below 300 µg/g Cr and CdB level to be at or below 5 µg/lwb, then for currently exposed employees, the employer ((shall)) must comply with the requirements of (a)(i) of this subsection and for previously exposed employees, the employer shall comply with the requirements of (a)(ii) of this subsection;

(ii) If the results of the initial biological monitoring tests show the level of CdU to exceed 3 µg/g Cr, the level of β<sub>2</sub>-M to exceed 300 µg/g Cr, or the level of CdB to exceed 5 µg/lwb, the employer ((shall)) must comply with the requirements of (b)(i) through (iii) of this subsection; and

(iii) If the results of the initial biological monitoring tests show the level of CdU to be in excess of 7 µg/g Cr, or the

level of CdB to be in excess of 10  $\mu\text{g/lwb}$ , or the level of  $\beta_2\text{-M}$  to be in excess of 750  $\mu\text{g/g Cr}$ , the employer ~~((shall))~~ must: Comply with the requirements of (b)(i) through (ii) of this subsection; and, within ninety days after receipt of biological monitoring results, provide a full medical examination to the employee in accordance with the requirements of subsection (4)(b) of this section. After completing the medical examination, the examining physician ~~((shall))~~ must determine in a written medical opinion whether to medically remove the employee. However, if the initial biological monitoring results and the biological monitoring results obtained during the medical examination both show that: CdU exceeds 7  $\mu\text{g/g Cr}$ ; or CdB exceeds 10  $\mu\text{g/lwb}$ ; or  $\beta_2\text{-M}$  exceeds 750  $\mu\text{g/g Cr}$ , and in addition CdU exceeds 3  $\mu\text{g/g Cr}$  or CdB exceeds 5  $\mu\text{g/liter}$  of whole blood, then the physician ~~((shall))~~ must medically remove the employee from exposure to cadmium at or above the action level. If the second set of biological monitoring results obtained during the medical examination does not show that a mandatory removal trigger level has been exceeded, then the employee is not required to be removed by the mandatory provisions of this section. If the employee is not required to be removed by the mandatory provisions of this section or by the physician's determination, then until the employee's CdU level falls to or below 3  $\mu\text{g/g Cr}$ ,  $\beta_2\text{-M}$  level falls to or below 300  $\mu\text{g/g Cr}$  and CdB level falls to or below 5  $\mu\text{g/lwb}$ , the employer ~~((shall))~~ must: Periodically reassess the employee's occupational exposure to cadmium; provide biological monitoring in accordance with subsection (2)(b)(ii) of this section on a quarterly basis; and provide semiannual medical examinations in accordance with subsection (4)(b) of this section.

(4) Periodic medical surveillance.

(a) For each employee who is covered under subsection (1)(a)(i) of this section, the employer ~~((shall))~~ must provide at least the minimum level of periodic medical surveillance, which consists of periodic medical examinations and periodic biological monitoring. A periodic medical examination ~~((shall))~~ must be provided within one year after the initial examination required by subsection (2) of this section and thereafter at least biennially. Biological sampling ~~((shall))~~ must be provided at least annually, either as part of a periodic medical examination or separately as periodic biological monitoring.

(b) The periodic medical examination ~~((shall))~~ must include:

(i) A detailed medical and work history, or update thereof, with emphasis on: Past, present and anticipated future exposure to cadmium; smoking history and current status; reproductive history; current use of medications with potential nephrotoxic side-effects; any history of renal, cardiovascular, respiratory, hematopoietic, and/or musculoskeletal system dysfunction; and as part of the medical and work history, for employees who wear respirators, questions 3-11 and 25-32 in WAC 296-62-07447, Appendix D;

(ii) A complete physical examination with emphasis on: Blood pressure, the respiratory system, and the urinary system;

(iii) A 14 inch by 17 inch, or a reasonably standard sized posterior-anterior chest X-ray (after the initial X-ray, the fre-

quency of chest X-rays is to be determined by the examining physician);

(iv) Pulmonary function tests, including forced vital capacity (FVC) and forced expiratory volume at 1 second (FEV1);

(v) Biological monitoring, as required in subsection (2)(b)(ii) of this section;

(vi) Blood analysis, in addition to the analysis required under this section, including blood urea nitrogen, complete blood count, and serum creatinine;

(vii) Urinalysis, in addition to the analysis required under subsection (2)(b)(ii) of this section, including the determination of albumin, glucose, and total and low molecular weight proteins;

(viii) For males over forty years old, prostate palpation, or other at least as effective diagnostic test(s); and

(ix) Any additional tests deemed appropriate by the examining physician.

(c) Periodic biological monitoring ~~((shall))~~ must be provided in accordance with subsection (2)(b)(ii) of this section.

(d) If the results of periodic biological monitoring or the results of biological monitoring performed as part of the periodic medical examination show the level of the employee's CdU,  $\beta_2\text{-M}$ , or CdB to be in excess of the levels specified in subsection (3)(b) or (c) of this section; or, beginning on January 1, 1999, in excess of the levels specified in subsection (3)(b) or (d) of this section, the employer ~~((shall))~~ must take the appropriate actions specified in subsection (3)(b) through (d) of this section.

(e) For previously exposed employees under subsection (1)(a)(ii) of this section:

(i) If the employee's levels of CdU did not exceed 3  $\mu\text{g/g Cr}$ , CdB did not exceed 5  $\mu\text{g/lwb}$ , and  $\beta_2\text{-M}$  did not exceed 300  $\mu\text{g/g Cr}$  in the initial biological monitoring tests, and if the results of the followup biological monitoring required by subsection (3)(a)(ii) of this section one year after the initial examination confirm the previous results, the employer may discontinue all periodic medical surveillance for that employee.

(ii) If the initial biological monitoring results for CdU, CdB, or  $\beta_2\text{-M}$  were in excess of the levels specified in subsection (3)(a) of this section, but subsequent biological monitoring results required by subsection (3)(b) through (e) of this section show that the employee's CdU levels no longer exceed 3  $\mu\text{g/g Cr}$ , CdB levels no longer exceed 5  $\mu\text{g/lwb}$ , and  $\beta_2\text{-M}$  levels no longer exceed 300  $\mu\text{g/g Cr}$ , the employer shall provide biological monitoring for CdU, CdB, and  $\beta_2\text{-M}$  one year after these most recent biological monitoring results. If the results of the followup biological monitoring, specified in this section, confirm the previous results, the employer may discontinue all periodic medical surveillance for that employee.

(iii) However, if the results of the follow-up tests specified in (e)(i) or (ii) of this subsection indicate that the level of the employee's CdU,  $\beta_2\text{-M}$ , or CdB exceeds these same levels, the employer is required to provide annual medical examinations in accordance with the provisions of (b) of this subsection until the results of biological monitoring are consistently below these levels or the examining physician

determines in a written medical opinion that further medical surveillance is not required to protect the employee's health.

(f) A routine, biennial medical examination is not required to be provided in accordance with subsections (3)(a) and (4) of this section if adequate medical records show that the employee has been examined in accordance with the requirements of (b) of this subsection within the past twelve months. In that case, such records ~~((shall))~~ must be maintained by the employer as part of the employee's medical record, and the next routine, periodic medical examination ~~((shall))~~ must be made available to the employee within two years of the previous examination.

(5) Actions triggered by medical examinations.

If the results of a medical examination carried out in accordance with this section indicate any laboratory or clinical finding consistent with cadmium toxicity that does not require employer action under subsection ~~((s))~~ (2), (3), or (4) of this section, the employer, within thirty days, ~~((shall))~~ must reassess the employee's occupational exposure to cadmium and take the following corrective action until the physician determines they are no longer necessary:

(a) Periodically reassess: The employee's work practices and personal hygiene; the employee's respirator use, if any; the employee's smoking history and status; the respiratory protection program; the hygiene facilities; and the maintenance and effectiveness of the relevant engineering controls;

(b) Within thirty days after the reassessment, take all reasonable steps to correct the deficiencies found in the reassessment that may be responsible for the employee's excess exposure to cadmium;

(c) Provide semiannual medical reexaminations to evaluate the abnormal clinical sign(s) of cadmium toxicity until the results are normal or the employee is medically removed; and

(d) Where the results of tests for total proteins in urine are abnormal, provide a more detailed medical evaluation of the toxic effects of cadmium on the employee's renal system.

(6) Examination for respirator use.

(a) To determine an employee's fitness for respirator use, the employer ~~((shall))~~ must provide a medical examination that includes the elements specified in (a)(i) through (iv) of this subsection. This examination ~~((shall))~~ must be provided prior to the employee's being assigned to a job that requires the use of a respirator or no later than ninety days after this section goes into effect, whichever date is later, to any employee without a medical examination within the preceding twelve months that satisfies the requirements of this paragraph.

(i) A detailed medical and work history, or update thereof, with emphasis on: Past exposure to cadmium; smoking history and current status; any history of renal, cardiovascular, respiratory, hematopoietic, and/or musculoskeletal system dysfunction; a description of the job for which the respirator is required; and questions 3 through 11 and 25 through 32 in WAC 296-62-07447, Appendix D;

(ii) A blood pressure test;

(iii) Biological monitoring of the employee's levels of CdU, CdB and  $\beta_2$ -M in accordance with the requirements of subsection (2)(b)(ii) of this section, unless such results

already have been obtained within the previous twelve months; and

(iv) Any other test or procedure that the examining physician deems appropriate.

(b) After reviewing all the information obtained from the medical examination required in (a) of this subsection, the physician ~~((shall))~~ must determine whether the employee is fit to wear a respirator.

(c) Whenever an employee has exhibited difficulty in breathing during a respirator fit test or during use of a respirator, the employer, as soon as possible, ~~((shall))~~ must provide the employee with a periodic medical examination in accordance with subsection (4)(b) of this section to determine the employee's fitness to wear a respirator.

(d) Where the results of the examination required under (a), (b), or (c) of this subsection are abnormal, medical limitation or prohibition of respirator use ~~((shall))~~ must be considered. If the employee is allowed to wear a respirator, the employee's ability to continue to do so ~~((shall))~~ must be periodically evaluated by a physician.

(7) Emergency examinations.

(a) In addition to the medical surveillance required in subsections (2) through (6) of this section, the employer ~~((shall))~~ must provide a medical examination as soon as possible to any employee who may have been acutely exposed to cadmium because of an emergency.

(b) The examination ~~((shall))~~ must include the requirements of subsection (4)(b) of this section, with emphasis on the respiratory system, other organ systems considered appropriate by the examining physician, and symptoms of acute overexposure, as identified in WAC 296-62-07441 (2)(b)(i) through (ii) and (4), Appendix A.

(8) Termination of employment examination.

(a) At termination of employment, the employer ~~((shall))~~ must provide a medical examination in accordance with subsection (4)(b) of this section, including a chest X-ray, to any employee to whom at any prior time the employer was required to provide medical surveillance under subsection (1)(a) or (7) of this section. However, if the last examination satisfied the requirements of subsection (4)(b) of this section and was less than six months prior to the date of termination, no further examination is required unless otherwise specified in subsection (3) or (5) of this section;

(b) However, for employees covered by subsection (1)(a)(ii) of this section, if the employer has discontinued all periodic medical surveillance under subsection (4)(e) of this section, no termination of employment medical examination is required.

(9) Information provided to the physician. The employer ~~((shall))~~ must provide the following information to the examining physician:

(a) A copy of this standard and appendices;

(b) A description of the affected employee's former, current, and anticipated duties as they relate to the employee's occupational exposure to cadmium;

(c) The employee's former, current, and anticipated future levels of occupational exposure to cadmium;

(d) A description of any personal protective equipment, including respirators, used or to be used by the employee,

including when and for how long the employee has used that equipment; and

(e) Relevant results of previous biological monitoring and medical examinations.

(10) Physician's written medical opinion.

(a) The employer ((~~shall~~)) must promptly obtain a written, signed medical opinion from the examining physician for each medical examination performed on each employee. This written opinion ((~~shall~~)) must contain:

(i) The physician's diagnosis for the employee;

(ii) The physician's opinion as to whether the employee has any detected medical condition(s) that would place the employee at increased risk of material impairment to health from further exposure to cadmium, including any indications of potential cadmium toxicity;

(iii) The results of any biological or other testing or related evaluations that directly assess the employee's absorption of cadmium;

(iv) Any recommended removal from, or limitation on the activities or duties of the employee or on the employee's use of personal protective equipment, such as respirators;

(v) A statement that the physician has clearly and carefully explained to the employee the results of the medical examination, including all biological monitoring results and any medical conditions related to cadmium exposure that require further evaluation or treatment, and any limitation on the employee's diet or use of medications.

(b) The employer promptly ((~~shall~~)) must obtain a copy of the results of any biological monitoring provided by an employer to an employee independently of a medical examination under subsections (2) and (4) of this section, and, in lieu of a written medical opinion, an explanation sheet explaining those results.

(c) The employer ((~~shall~~)) must instruct the physician not to reveal orally or in the written medical opinion given to the employer specific findings or diagnoses unrelated to occupational exposure to cadmium.

(11) Medical removal protection (MRP).

(a) General.

(i) The employer ((~~shall~~)) must temporarily remove an employee from work where there is excess exposure to cadmium on each occasion that medical removal is required under subsection (3), (4), or (6) of this section and on each occasion that a physician determines in a written medical opinion that the employee should be removed from such exposure. The physician's determination may be based on biological monitoring results, inability to wear a respirator, evidence of illness, other signs or symptoms of cadmium-related dysfunction or disease, or any other reason deemed medically sufficient by the physician.

(ii) The employer ((~~shall~~)) must medically remove an employee in accordance with this subsection regardless of whether at the time of removal a job is available into which the removed employee may be transferred.

(iii) Whenever an employee is medically removed under this subsection, the employer ((~~shall~~)) must transfer the removed employee to a job where the exposure to cadmium is within the permissible levels specified in that subsection as soon as one becomes available.

(iv) For any employee who is medically removed under the provisions of (a) of this subsection, the employer ((~~shall~~)) must provide follow-up biological monitoring in accordance with subsection (2)(b)(ii) of this section at least every three months and follow-up medical examinations semiannually at least every six months until in a written medical opinion the examining physician determines that either the employee may be returned to ((~~his/her~~)) their former job status as specified under (d) through (e) of this subsection or the employee must be permanently removed from excess cadmium exposure.

(v) The employer may not return an employee who has been medically removed for any reason to ((~~his/her~~)) their former job status until a physician determines in a written medical opinion that continued medical removal is no longer necessary to protect the employee's health.

(b) Where an employee is found unfit to wear a respirator under subsection (6)(b) of this section, the employer ((~~shall~~)) must remove the employee from work where exposure to cadmium is above the PEL.

(c) Where removal is based on any reason other than the employee's inability to wear a respirator, the employer ((~~shall~~)) must remove the employee from work where exposure to cadmium is at or above the action level.

(d) Except as specified in (e) of this subsection, no employee who was removed because ((~~his/her~~)) their level of CdU, CdB and/or  $\beta_2$ -M exceeded the medical removal trigger levels in subsection (3) or (4) of this section may be returned to work with exposure to cadmium at or above the action level until the employee's levels of CdU fall to or below 3  $\mu\text{g/g}$  Cr, CdB falls to or below 5  $\mu\text{g/lwb}$ , and  $\beta_2$ -M falls to or below 300  $\mu\text{g/g}$  Cr.

(e) However, when in the examining physician's opinion continued exposure to cadmium will not pose an increased risk to the employee's health and there are special circumstances that make continued medical removal an inappropriate remedy, the physician ((~~shall~~)) must fully discuss these matters with the employee, and then in a written determination may return a worker to ((~~his/her~~)) their former job status despite what would otherwise be unacceptably high biological monitoring results. Thereafter, the returned employee ((~~shall~~)) must continue to be provided with medical surveillance as if ((~~he/she~~)) they were still on medical removal until the employee's levels of CdU fall to or below 3  $\mu\text{g/g}$  Cr, CdB falls to or below 5  $\mu\text{g/lwb}$ , and  $\beta_2$ -M falls to or below 300  $\mu\text{g/g}$  Cr.

(f) Where an employer, although not required by (a) through (c) of this subsection to do so, removes an employee from exposure to cadmium or otherwise places limitations on an employee due to the effects of cadmium exposure on the employee's medical condition, the employer ((~~shall~~)) must provide the same medical removal protection benefits to that employee under subsection (12) of this section as would have been provided had the removal been required under (a) through (c) of this subsection.

(12) Medical removal protection benefits (MRPB).

(a) The employer ((~~shall~~)) must provide MRPB for up to a maximum of eighteen months to an employee each time and while the employee is temporarily medically removed under subsection (11) of this section.

(b) For purposes of this section, the requirement that the employer provide MRPB means that the employer ~~((shall))~~ must maintain the total normal earnings, seniority, and all other employee rights and benefits of the removed employee, including the employee's right to ~~((his/her))~~ their former job status, as if the employee had not been removed from the employee's job or otherwise medically limited.

(c) Where, after eighteen months on medical removal because of elevated biological monitoring results, the employee's monitoring results have not declined to a low enough level to permit the employee to be returned to ~~((his/her))~~ their former job status:

(i) The employer ~~((shall))~~ must make available to the employee a medical examination pursuant in order to obtain a final medical determination as to whether the employee may be returned to ~~((his/her))~~ their former job status or must be permanently removed from excess cadmium exposure; and

(ii) The employer ~~((shall assure))~~ must ensure that the final medical determination indicates whether the employee may be returned to ~~((his/her))~~ their former job status and what steps, if any, should be taken to protect the employee's health.

(d) The employer may condition the provision of MRPB upon the employee's participation in medical surveillance provided in accordance with this section.

(13) Multiple physician review.

(a) If the employer selects the initial physician to conduct any medical examination or consultation provided to an employee under this section, the employee may designate a second physician to:

(i) Review any findings, determinations, or recommendations of the initial physician; and

(ii) Conduct such examinations, consultations, and laboratory tests as the second physician deems necessary to facilitate this review.

(b) The employer ~~((shall))~~ must promptly notify an employee of the right to seek a second medical opinion after each occasion that an initial physician provided by the employer conducts a medical examination or consultation pursuant to this section. The employer may condition its participation in, and payment for, multiple physician review upon the employee doing the following within fifteen days after receipt of this notice, or receipt of the initial physician's written opinion, whichever is later:

(i) Informing the employer that he or she intends to seek a medical opinion; and

(ii) Initiating steps to make an appointment with a second physician.

(c) If the findings, determinations, or recommendations of the second physician differ from those of the initial physician, then the employer and the employee ~~((shall assure))~~ must ensure that efforts are made for the two physicians to resolve any disagreement.

(d) If the two physicians have been unable to quickly resolve their disagreement, then the employer and the employee, through their respective physicians, ~~((shall))~~ must designate a third physician to:

(i) Review any findings, determinations, or recommendations of the other two physicians; and

(ii) Conduct such examinations, consultations, laboratory tests, and discussions with the other two physicians as the third physician deems necessary to resolve the disagreement among them.

(e) The employer ~~((shall))~~ must act consistently with the findings, determinations, and recommendations of the third physician, unless the employer and the employee reach an agreement that is consistent with the recommendations of at least one of the other two physicians.

(14) Alternate physician determination. The employer and an employee or designated employee representative may agree upon the use of any alternate form of physician determination in lieu of the multiple physician review provided by subsection (13) of this section, so long as the alternative is expeditious and at least as protective of the employee.

(15) Information the employer must provide the employee.

(a) The employer ~~((shall))~~ must provide a copy of the physician's written medical opinion to the examined employee within two weeks after receipt thereof.

(b) The employer ~~((shall))~~ must provide the employee with a copy of the employee's biological monitoring results and an explanation sheet explaining the results within two weeks after receipt thereof.

(c) Within thirty days after a request by an employee, the employer ~~((shall))~~ must provide the employee with the information the employer is required to provide the examining physician under subsection (9) of this section.

(16) Reporting. In addition to other medical events that are required to be reported on the OSHA Form No. 200, the employer ~~((shall))~~ must report any abnormal condition or disorder caused by occupational exposure to cadmium associated with employment as specified in WAC ~~((296-27-060))~~ 296-27-02105.

AMENDATORY SECTION (Amending WSR 14-07-086, filed 3/18/14, effective 5/1/14)

**WAC 296-62-07425 Communication of cadmium hazards.** (1) General. Chemical manufacturers, importers, distributors and employers ~~((shall))~~ must comply with all requirements of WAC 296-901-140~~((;))~~ Hazard communication.

(2) In classifying the hazards of cadmium at least the following hazards are to be addressed: Cancer; lung effects; kidney effects; and acute toxicity effects.

(3) Employers ~~((shall))~~ must include cadmium in the hazard communication program established to comply with WAC 296-901-140~~((;))~~ Hazard communication. Employers ~~((shall))~~ must ensure that each employee has access to labels on containers of cadmium and to safety data sheets (SDSs), and is trained in accordance with the requirements of WAC 296-901-140~~((;))~~ Hazard communication and subsection (m)(4) of this section.

(4) Warning signs.

(a) Warning signs ~~((shall))~~ must be provided and displayed in regulated areas. In addition, warning signs ~~((shall))~~ must be posted at all approaches to regulated areas so that an employee may read the signs and take necessary protective steps before entering the area.

(b) ~~((Prior to June 1, 2016, employers may use the following legend in lieu of that specified in (d) of this subsection:~~

~~DANGER CADMIUM CANCER HAZARD CAN CAUSE LUNG  
AND KIDNEY DISEASE AUTHORIZED PERSONNEL ONLY  
RESPIRATORS REQUIRED IN THIS AREA~~

(e)) The employer ~~((shall))~~ must ensure that signs required by this subsection are illuminated, cleaned, and maintained as necessary so that the legend is readily visible.

~~((d))~~ (c) Warning signs required by (a) of this subsection ~~((shall))~~ must bear the following legend:

~~DANGER CADMIUM MAY CAUSE CANCER  
CAUSES DAMAGE TO LUNGS AND KIDNEYS  
WEAR RESPIRATORY PROTECTION IN THIS AREA  
AUTHORIZED PERSONNEL ONLY~~

(5) Warning labels.

(a) Shipping and storage containers containing cadmium, cadmium compounds, or cadmium contaminated clothing, equipment, waste, scrap, or debris ~~((shall))~~ must bear appropriate warning labels, as specified in subsection (1) of this section.

~~(b) ((Prior to June 1, 2015, employers may include the following information on warning labels in lieu of the labeling requirements specified in subsection (1) of this section and (e) of this subsection:~~

~~DANGER CONTAINS CADMIUM CANCER HAZARD AVOID  
CREATING DUST CAN CAUSE LUNG AND KIDNEY DISEASE~~

~~(e))~~ The warning labels for containers of contaminated protective clothing, equipment, waste, scrap, or debris ~~((shall))~~ must include at least the following information:

~~DANGER CONTAINS CADMIUM MAY CAUSE CANCER  
CAUSES DAMAGE TO LUNGS AND KIDNEYS  
AVOID CREATING DUST~~

~~((d))~~ (c) Where feasible, installed cadmium products ~~((shall))~~ must have a visible label or other indication that cadmium is present.

(6) Employee information and training.

(a) The employer ~~((shall))~~ must train each employee who is potentially exposed to cadmium in accordance with the requirements of this chapter. The employer ~~((shall))~~ must institute a training program, ensure employee participation in the program, and maintain a record of the contents of such program.

(b) Training ~~((shall))~~ must be provided prior to or at the time of initial assignment to a job involving potential exposure to cadmium and at least annually thereafter.

(c) The employer ~~((shall))~~ must make the training program understandable to the employee and ~~((shall assure))~~ must ensure that each employee is informed of the following:

(i) The health hazards associated with cadmium exposure, with special attention to the information incorporated in WAC 296-62-07441, Appendix A;

(ii) The quantity, location, manner of use, release, and storage of cadmium in the workplace and the specific nature of operations that could result in exposure to cadmium, especially exposures above the PEL;

(iii) The engineering controls and work practices associated with the employee's job assignment;

(iv) The measures employees can take to protect themselves from exposure to cadmium, including modification of such habits as smoking and personal hygiene, and specific procedures the employer has implemented to protect employees from exposure to cadmium such as appropriate work practices, emergency procedures, and the provision of personal protective equipment;

(v) The purpose, proper selection, fitting, proper use, and limitations of protective clothing;

(vi) The purpose and a description of the medical surveillance program required by WAC 296-62-07423;

(vii) The contents of this section and its appendices;

(viii) The employee's rights of access to records under WAC 296-901-140 and chapter 296-802 WAC; and

(ix) The purpose, proper use, limitations, and other training requirements for respiratory protection as required in chapter ~~((296-62))~~ 296-842 WAC~~((Part E))~~.

(d) Additional access to information and training program and materials.

(i) The employer ~~((shall))~~ must make a copy of this section and its appendices readily available without cost to all affected employees and ~~((shall))~~ must provide a copy if requested.

(ii) The employer ~~((shall))~~ must provide to the director, upon request, all materials relating to the employee information and the training program.

AMENDATORY SECTION (Amending WSR 04-10-026, filed 4/27/04, effective 8/1/04)

**WAC 296-62-07427 Recordkeeping.** (1) Exposure monitoring.

(a) The employer ~~((shall))~~ must establish and keep an accurate record of all air monitoring for cadmium in the workplace.

(b) This record ~~((shall))~~ must include at least the following information:

(i) The monitoring date, duration, and results in terms of an 8-hour TWA of each sample taken;

(ii) The name, Social Security number, and job classification of the employees monitored and of all other employees whose exposures the monitoring is intended to represent;

(iii) A description of the sampling and analytical methods used and evidence of their accuracy;

(iv) The type of respiratory protective device, if any, worn by the monitored employee;

(v) A notation of any other conditions that might have affected the monitoring results.

(c) The employer ~~((shall))~~ must maintain this record for at least thirty years, in accordance with chapter 296-802 WAC.

(2) Objective data for exemption from requirement for initial monitoring.

(a) For purposes of this section, objective data are information demonstrating that a particular product or material containing cadmium or a specific process, operation, or activity involving cadmium cannot release dust or fumes in concentrations at or above the action level even under the worst-case release conditions. Objective data can be obtained from an industry-wide study or from laboratory product test results

from manufacturers of cadmium-containing products or materials. The data the employer uses from an industry-wide survey must be obtained under workplace conditions closely resembling the processes, types of material, control methods, work practices and environmental conditions in the employer's current operations.

(b) The employer ~~((shall))~~ **must** establish and maintain a record of the objective data for at least thirty years.

(3) Medical surveillance.

(a) The employer ~~((shall))~~ **must** establish and maintain an accurate record for each employee covered by medical surveillance under WAC 296-62-07423 (1)(a).

(b) The record ~~((shall))~~ **must** include at least the following information about the employee:

(i) Name, Social Security number, and description of the duties;

(ii) A copy of the physician's written opinions and an explanation sheet for biological monitoring results;

(iii) A copy of the medical history, and the results of any physical examination and all test results that are required to be provided by this section, including biological tests, X-rays, pulmonary function tests, etc., or that have been obtained to further evaluate any condition that might be related to cadmium exposure;

(iv) The employee's medical symptoms that might be related to exposure to cadmium; and

(v) A copy of the information provided to the physician as required by WAC 296-62-07423 (9)(b) through (e).

(c) The employer ~~((shall assure))~~ **must ensure** that this record is maintained for the duration of employment plus thirty years, in accordance with chapter 296-802 WAC.

(4) Training. The employer ~~((shall))~~ **must** certify that employees have been trained by preparing a certification record which includes the identity of the person trained, the signature of the employer or the person who conducted the training, and the date the training was completed. The certification records ~~((shall))~~ **must** be prepared at the completion of training and ~~((shall))~~ **must** be maintained on file for one year beyond the date of training of that employee.

(5) Availability.

(a) Except as otherwise provided for in this section, access to all records required to be maintained by subsections (1) through (4) of this section ~~((shall))~~ **must** be in accordance with the provisions of chapter 296-802 WAC.

(b) Within fifteen days after a request, the employer ~~((shall))~~ **must** make an employee's medical records required to be kept by subsection (3) of this section available for examination and copying to the subject employee, to designated representatives, to anyone having the specific written consent of the subject employee, and after the employee's death or incapacitation, to the employee's family members.

(6) Transfer of records. Whenever an employer ceases to do business and there is no successor employer to receive and retain records for the prescribed period or the employer intends to dispose of any records required to be preserved for at least thirty years, the employer ~~((shall))~~ **must** comply with the requirements concerning transfer of records set forth in chapter 296-802 WAC.

AMENDATORY SECTION (Amending WSR 93-07-044, filed 3/13/93, effective 4/27/93)

**WAC 296-62-07429 Observation of monitoring.** (1) Employee observation. The employer ~~((shall))~~ **must** provide affected employees or their designated representatives an opportunity to observe any monitoring of employee exposure to cadmium.

(2) Observation procedures. When observation of monitoring requires entry into an area where the use of protective clothing or equipment is required, the employer ~~((shall))~~ **must** provide the observer with that clothing and equipment and ~~((shall assure))~~ **must ensure** that the observer uses such clothing and equipment and complies with all other applicable safety and health procedures.

AMENDATORY SECTION (Amending WSR 99-10-071, filed 5/4/99, effective 9/1/99)

**WAC 296-62-07441 Appendix A, substance safety data sheet—Cadmium.** (1) Substance identification.

(a) Substance: Cadmium.

(b) 8-Hour, time-weighted-average, permissible exposure limit (TWA PEL):

(c) TWA PEL: Five micrograms of cadmium per cubic meter of air 5 µg/m<sup>3</sup>, time-weighted average (TWA) for an 8-hour workday.

(d) Appearance: Cadmium metal—soft, blue-white, malleable, lustrous metal or grayish-white powder. Some cadmium compounds may also appear as a brown, yellow, or red powdery substance.

(2) Health hazard data.

(a) Routes of exposure. Cadmium can cause local skin or eye irritation. Cadmium can affect your health if you inhale it or if you swallow it.

(b) Effects of overexposure.

(i) Short-term (acute) exposure: Cadmium is much more dangerous by inhalation than by ingestion. High exposures to cadmium that may be immediately dangerous to life or health occur in jobs where workers handle large quantities of cadmium dust or fume; heat cadmium-containing compounds or cadmium-coated surfaces; weld with cadmium solders or cut cadmium-containing materials such as bolts.

(ii) Severe exposure may occur before symptoms appear. Early symptoms may include mild irritation of the upper respiratory tract, a sensation of constriction of the throat, a metallic taste and/or a cough. A period of one to ten hours may precede the onset of rapidly progressing shortness of breath, chest pain, and flu-like symptoms with weakness, fever, headache, chills, sweating, and muscular pain. Acute pulmonary edema usually develops within twenty-four hours and reaches a maximum by three days. If death from asphyxia does not occur, symptoms may resolve within a week.

(iii) Long-term (chronic) exposure. Repeated or long-term exposure to cadmium, even at relatively low concentrations, may result in kidney damage and an increased risk of cancer of the lung and of the prostate.

(c) Emergency first-aid procedures.

(i) Eye exposure: Direct contact may cause redness or pain. Wash eyes immediately with large amounts of water,

lifting the upper and lower eyelids. Get medical attention immediately.

(ii) Skin exposure: Direct contact may result in irritation. Remove contaminated clothing and shoes immediately. Wash affected area with soap or mild detergent and large amounts of water. Get medical attention immediately.

(iii) Ingestion: Ingestion may result in vomiting, abdominal pain, nausea, diarrhea, headache, and sore throat. Treatment for symptoms must be administered by medical personnel. Under no circumstances should the employer allow any person whom ~~(he/she)~~ they retain((s)), employ((s)), supervise((s)), or control((s)) to engage in therapeutic chelation. Such treatment is likely to translocate cadmium from pulmonary or other tissue to renal tissue. Get medical attention immediately.

(iv) Inhalation: If large amounts of cadmium are inhaled, the exposed person must be moved to fresh air at once. If breathing has stopped, perform cardiopulmonary resuscitation. Administer oxygen if available. Keep the affected person warm and at rest. Get medical attention immediately.

(v) Rescue: Move the affected person from the hazardous exposure. If the exposed person has been overcome, attempt rescue only after notifying at least one other person of the emergency and putting into effect established emergency procedures. Do not become a casualty yourself. Understand your emergency rescue procedures and know the location of the emergency equipment before the need arises.

### (3) Employee information.

#### (a) Protective clothing and equipment.

(i) Respirators: You may be required to wear a respirator for nonroutine activities; in emergencies; while your employer is in the process of reducing cadmium exposures through engineering controls; and where engineering controls are not feasible. If air-purifying respirators are worn, they must have a label issued by the National Institute for Occupational Safety and Health (NIOSH) under the provisions of 42 C.F.R. part 84 stating that the respirators have been certified for use with cadmium. Cadmium does not have a detectable odor except at levels well above the permissible exposure limits. If you can smell cadmium while wearing a respirator, proceed immediately to fresh air. If you experience difficulty breathing while wearing a respirator, tell your employer.

(ii) Protective clothing: You may be required to wear impermeable clothing, gloves, foot gear, a face shield, or other appropriate protective clothing to prevent skin contact with cadmium. Where protective clothing is required, your employer must provide clean garments to you as necessary to assure that the clothing protects you adequately. The employer must replace or repair protective clothing that has become torn or otherwise damaged.

(iii) Eye protection: You may be required to wear splash-proof or dust resistant goggles to prevent eye contact with cadmium.

#### (b) Employer requirements.

(i) Medical: If you are exposed to cadmium at or above the action level, your employer is required to provide a medical examination, laboratory tests and a medical history according to the medical surveillance provisions under WAC 296-62-07423. (See summary chart and tables in this section,

appendix A.) These tests ~~((shall))~~ must be provided without cost to you. In addition, if you are accidentally exposed to cadmium under conditions known or suspected to constitute toxic exposure to cadmium, your employer is required to make special tests available to you.

(ii) Access to records: All medical records are kept strictly confidential. You or your representative are entitled to see the records of measurements of your exposure to cadmium. Your medical examination records can be furnished to your personal physician or designated representative upon request by you to your employer.

(iii) Observation of monitoring: Your employer is required to perform measurements that are representative of your exposure to cadmium and you or your designated representative are entitled to observe the monitoring procedure. You are entitled to observe the steps taken in the measurement procedure, and to record the results obtained. When the monitoring procedure is taking place in an area where respirators or personal protective clothing and equipment are required to be worn, you or your representative must also be provided with, and must wear the protective clothing and equipment.

(c) Employee requirements. You will not be able to smoke, eat, drink, chew gum or tobacco, or apply cosmetics while working with cadmium in regulated areas. You will also not be able to carry or store tobacco products, gum, food, drinks, or cosmetics in regulated areas because these products easily become contaminated with cadmium from the workplace and can therefore create another source of unnecessary cadmium exposure. Some workers will have to change out of work clothes and shower at the end of the day, as part of their workday, in order to wash cadmium from skin and hair. Handwashing and cadmium-free eating facilities ~~((shall))~~ must be provided by the employer and proper hygiene should always be performed before eating. It is also recommended that you do not smoke or use tobacco products, because among other things, they naturally contain cadmium. For further information, read the labeling on such products.

#### (4) Physician information.

(a) Introduction. The medical surveillance provisions of WAC 296-62-07423 generally are aimed at accomplishing three main interrelated purposes: First, identifying employees at higher risk of adverse health effects from excess, chronic exposure to cadmium; second, preventing cadmium-induced disease; and third, detecting and minimizing existing cadmium-induced disease. The core of medical surveillance in this standard is the early and periodic monitoring of the employee's biological indicators of:

(i) Recent exposure to cadmium;

(ii) Cadmium body burden; and

(iii) Potential and actual kidney damage associated with exposure to cadmium. The main adverse health effects associated with cadmium overexposure are lung cancer and kidney dysfunction. It is not yet known how to adequately biologically monitor human beings to specifically prevent cadmium-induced lung cancer. By contrast, the kidney can be monitored to provide prevention and early detection of cadmium-induced kidney damage. Since, for noncarcinogenic effects, the kidney is considered the primary target organ of chronic exposure to cadmium, the medical surveillance pro-

visions of this standard effectively focus on cadmium-induced kidney disease. Within that focus, the aim, where possible, is to prevent the onset of such disease and, where necessary, to minimize such disease as may already exist. The by-products of successful prevention of kidney disease are anticipated to be the reduction and prevention of other cadmium-induced diseases.

(b) Health effects. The major health effects associated with cadmium overexposure are described below.

(i) Kidney: The most prevalent nonmalignant disease observed among workers chronically exposed to cadmium is kidney dysfunction. Initially, such dysfunction is manifested as proteinuria. The proteinuria associated with cadmium exposure is most commonly characterized by excretion of low-molecular weight proteins (15,000 to 40,000 MW) accompanied by loss of electrolytes, uric acid, calcium, amino acids, and phosphate. The compounds commonly excreted include: Beta-2-microglobulin ( $\beta_2$ -M), retinol binding protein (RBP), immunoglobulin light chains, and lysozyme. Excretion of low molecular weight proteins are characteristic of damage to the proximal tubules of the kidney (Iwao et al., 1980). It has also been observed that exposure to cadmium may lead to urinary excretion of high-molecular weight proteins such as albumin, immunoglobulin G, and glycoproteins (Ex. 29). Excretion of high-molecular weight proteins is typically indicative of damage to the glomeruli of the kidney. Bernard et al., (1979) suggest that damage to the glomeruli and damage to the proximal tubules of the kidney may both be linked to cadmium exposure but they may occur independently of each other. Several studies indicate that the onset of low-molecular weight proteinuria is a sign of irreversible kidney damage (Friberg et al., 1974; Roels et al., 1982; Piscator 1984; Elinder et al., 1985; Smith et al., 1986). Above specific levels of  $\beta_2$ -M associated with cadmium exposure it is unlikely that  $\beta_2$ -M levels return to normal even when cadmium exposure is eliminated by removal of the individual from the cadmium work environment (Friberg, Ex. 29, 1990). Some studies indicate that such proteinuria may be progressive; levels of  $\beta_2$ -M observed in the urine increase with time even after cadmium exposure has ceased. See, for example, Elinder et al., 1985. Such observations, however, are not universal, and it has been suggested that studies in which proteinuria has not been observed to progress may not have tracked patients for a sufficiently long time interval (Jarup, Ex. 8-661). When cadmium exposure continues after the onset of proteinuria, chronic nephrotoxicity may occur (Friberg, Ex. 29). Uremia results from the inability of the glomerulus to adequately filter blood. This leads to severe disturbance of electrolyte concentrations and may lead to various clinical complications including kidney stones (L-140-50). After prolonged exposure to cadmium, glomerular proteinuria, glucosuria, aminoaciduria, phosphaturia, and hypercalciuria may develop (Exs. 8-86, 4-28, 14-18). Phosphate, calcium, glucose, and amino acids are essential to life, and under normal conditions, their excretion should be regulated by the kidney. Once low molecular weight proteinuria has developed, these elements dissipate from the human body. Loss of glomerular function may also occur, manifested by decreased glomerular filtration rate and increased serum cre-

atinine. Severe cadmium-induced renal damage may eventually develop into chronic renal failure and uremia (Ex. 55). Studies in which animals are chronically exposed to cadmium confirm the renal effects observed in humans (Friberg et al., 1986). Animal studies also confirm problems with calcium metabolism and related skeletal effects which have been observed among humans exposed to cadmium in addition to the renal effects. Other effects commonly reported in chronic animal studies include anemia, changes in liver morphology, immunosuppression and hypertension. Some of these effects may be associated with co-factors. Hypertension, for example, appears to be associated with diet as well as cadmium exposure. Animals injected with cadmium have also shown testicular necrosis (Ex. 8-86B).

(ii) Biological markers. It is universally recognized that the best measures of cadmium exposures and its effects are measurements of cadmium in biological fluids, especially urine and blood. Of the two, CdU is conventionally used to determine body burden of cadmium in workers without kidney disease. CdB is conventionally used to monitor for recent exposure to cadmium. In addition, levels of CdU and CdB historically have been used to predict the percent of the population likely to develop kidney disease (Thun et al., Ex. L-140-50; WHO, Ex. 8-674; ACGIH, Exs. 8-667, 140-50). The third biological parameter upon which WISHA relies for medical surveillance is beta-2-microglobulin in urine ( $\beta_2$ -M), a low molecular weight protein. Excess  $\beta_2$ -M has been widely accepted by physicians and scientists as a reliable indicator of functional damage to the proximal tubule of the kidney (Exs. 8-447, 144-3-C, 4-47, L-140-45, 19-43-A). Excess  $\beta_2$ -M is found when the proximal tubules can no longer reabsorb this protein in a normal manner. This failure of the proximal tubules is an early stage of a kind of kidney disease that commonly occurs among workers with excessive cadmium exposure. Used in conjunction with biological test results indicating abnormal levels of CdU and CdB, the finding of excess  $\beta_2$ -M can establish for an examining physician that any existing kidney disease is probably cadmium-related (Trs. 6/6/90, pp. 82-86, 122, 134). The upper limits of normal levels for cadmium in urine and cadmium in blood are 3  $\mu$ g Cd/gram creatinine in urine and 5  $\mu$ gCd/liter whole blood, respectively. These levels were derived from broad-based population studies. Three issues confront the physicians in the use of  $\beta_2$ -M as a marker of kidney dysfunction and material impairment. First, there are a few other causes of elevated levels of  $\beta_2$ -M not related to cadmium exposures, some of which may be rather common diseases and some of which are serious diseases (e.g., myeloma or transient flu, Exs. 29 and 8-086). These can be medically evaluated as alternative causes (Friberg, Ex. 29). Also, there are other factors that can cause  $\beta_2$ -M to degrade so that low levels would result in workers with tubular dysfunction. For example, regarding the degradation of  $\beta_2$ -M, workers with acidic urine (pH<6) might have  $\beta_2$ -M levels that are within the "normal" range when in fact kidney dysfunction has occurred (Ex. L-140-1) and the low molecular weight proteins are degraded in acid urine. Thus, it is very important that the pH of urine be measured, that urine samples be buffered as necessary (See WAC 296-

62-07451, appendix F.), and that urine samples be handled correctly, i.e., measure the pH of freshly voided urine samples, then if necessary, buffer to  $\text{pH} > 6$  (or above for shipping purposes), measure pH again and then, perhaps, freeze the sample for storage and shipping. (See also WAC 296-62-07451, appendix F.) Second, there is debate over the pathological significance of proteinuria, however, most world experts believe that  $\beta_2\text{-M}$  levels greater than  $300 \mu\text{g/g Cr}$  are abnormal (Elinder, Ex. 55, Friberg, Ex. 29). Such levels signify kidney dysfunction that constitutes material impairment of health. Finally, detection of  $\beta_2\text{-M}$  at low levels has often been considered difficult, however, many laboratories have the capability of detecting excess  $\beta_2\text{-M}$  using simple kits, such as the Phadebas Delphia test, that are accurate to levels of  $100 \mu\text{g } \beta_2\text{-M/g Cr U}$  (Ex. L-140-1). Specific recommendations for ways to measure  $\beta_2\text{-M}$  and proper handling of urine samples to prevent degradation of  $\beta_2\text{-M}$  have been addressed by WISHA in WAC 296-62-07451, appendix F, in the section on laboratory standardization. All biological samples must be analyzed in a laboratory that is proficient in the analysis of that particular analyte, under WAC 296-62-07423 (1)(d). (See WAC 296-62-07451, appendix F). Specifically, under WAC 296-62-07423 (1)(d), the employer is to ~~((assure))~~ ensure that the collecting and handling of biological samples of cadmium in urine (CdU), cadmium in blood (CdB), and beta-2 microglobulin in urine ( $\beta_2\text{-M}$ ) taken from employees is collected in a manner that ~~((assures))~~ ensures reliability. The employer must also ~~((assure))~~ ensure that analysis of biological samples of cadmium in urine (CdU), cadmium in blood (CdB), and beta-2 microglobulin in urine ( $\beta_2\text{-M}$ ) taken from employees is performed in laboratories with demonstrated proficiency for that particular analyte. (See WAC 296-62-07451, appendix F).

(iii) Lung and prostate cancer. The primary sites for cadmium-associated cancer appear to be the lung and the prostate (L-140-50). Evidence for an association between cancer and cadmium exposure derives from both epidemiological studies and animal experiments. Mortality from prostate cancer associated with cadmium is slightly elevated in several industrial cohorts, but the number of cases is small and there is not clear dose-response relationship. More substantive evidence exists for lung cancer. The major epidemiological study of lung cancer was conducted by Thun et al., (Ex. 4-68). Adequate data on cadmium exposures were available to allow evaluation of dose-response relationships between cadmium exposure and lung cancer. A statistically significant excess of lung cancer attributed to cadmium exposure was observed in this study even when confounding variables such as co-exposure to arsenic and smoking habits were taken into consideration (Ex. L-140-50). The primary evidence for quantifying a link between lung cancer and cadmium exposure from animal studies derives from two rat bioassay studies; one by Takenaka et al., (1983), which is a study of cadmium chloride and a second study by Oldiges and Glaser (1990) of four cadmium compounds. Based on the above cited studies, the U.S. Environmental Protection Agency (EPA) classified cadmium as "B1," a probable human carcinogen, in 1985 (Ex. 4-4). The International Agency for Research on Cancer (IARC) in 1987 also recommended that

cadmium be listed as "2A," a probable human carcinogen (Ex. 4-15). The American Conference of Governmental Industrial Hygienists (ACGIH) has recently recommended that cadmium be labeled as a carcinogen. Since 1984, NIOSH has concluded that cadmium is possibly a human carcinogen and has recommended that exposures be controlled to the lowest level feasible.

(iv) Noncarcinogenic effects. Acute pneumonitis occurs 10 to 24 hours after initial acute inhalation of high levels of cadmium fumes with symptoms such as fever and chest pain (Exs. 30, 8-86B). In extreme exposure cases pulmonary edema may develop and cause death several days after exposure. Little actual exposure measurement data is available on the level of airborne cadmium exposure that causes such immediate adverse lung effects, nonetheless, it is reasonable to believe a cadmium concentration of approximately  $1 \text{ mg/m}^3$  over an eight hour period is "immediately dangerous" (55 FR 4052, ANSI; Ex. 8-86B). In addition to acute lung effects and chronic renal effects, long term exposure to cadmium may cause other severe effects on the respiratory system. Reduced pulmonary function and chronic lung disease indicative of emphysema have been observed in workers who have had prolonged exposure to cadmium dust or fumes (Exs. 4-29, 4-22, 4-42, 4-50, 4-63). In a study of workers conducted by Kazantzis et al., a statistically significant excess of worker deaths due to chronic bronchitis was found, which in his opinion was directly related to high cadmium exposures of  $1 \text{ mg/m}^3$  or more (Tr. 6/8/90, pp. 156-157). Cadmium need not be respirable to constitute a hazard. Inspirable cadmium particles that are too large to be respirable but small enough to enter the tracheobronchial region of the lung can lead to bronchoconstriction, chronic pulmonary disease, and cancer of that portion of the lung. All of these diseases have been associated with occupational exposure to cadmium (Ex. 8-86B). Particles that are constrained by their size to the extrathoracic regions of the respiratory system such as the nose and maxillary sinuses can be swallowed through mucociliary clearance and be absorbed into the body (ACGIH, Ex. 8-692). The impaction of these particles in the upper airways can lead to anosmia, or loss of sense of smell, which is an early indication of overexposure among workers exposed to heavy metals. This condition is commonly reported among cadmium-exposed workers (Ex. 8-86-B).

(c) Medical surveillance. In general, the main provisions of the medical surveillance section of the standard, under WAC 296-62-07423 (1) through (16), are as follows:

- (i) Workers exposed above the action level are covered;
- (ii) Workers with intermittent exposures are not covered;
- (iii) Past workers who are covered receive biological monitoring for at least one year;
- (iv) Initial examinations include a medical questionnaire and biological monitoring of cadmium in blood (CdB), cadmium in urine (CdU), and Beta-2-microglobulin in urine ( $\beta_2\text{-M}$ );
- (v) Biological monitoring of these three analytes is performed at least annually; full medical examinations are performed biennially;
- (vi) Until five years from the effective date of the standard, medical removal is required when CdU is greater than  $15 \mu\text{g/gram creatinine (g Cr)}$ , or CdB is greater than 15

$\mu\text{g/liter}$  whole blood (lwb), or  $\beta_2\text{-M}$  is greater than 1500  $\mu\text{g/g}$  Cr, and CdB is greater than 5  $\mu\text{g/lwb}$  or CdU is greater than 3  $\mu\text{g/g}$  Cr;

(vii) Beginning five years after the standard is in effect, medical removal triggers will be reduced;

(viii) Medical removal protection benefits are to be provided for up to eighteen months;

(ix) Limited initial medical examinations are required for respirator usage;

(x) Major provisions are fully described under WAC 296-62-07423; they are outlined here as follows:

(A) Eligibility.

(B) Biological monitoring.

(C) Actions triggered by levels of CdU, CdB, and  $\beta_2\text{-M}$  (See Summary Charts and Tables in WAC 296-62-07441(5).)

(D) Periodic medical surveillance.

(E) Actions triggered by periodic medical surveillance (See appendix A Summary Chart and Tables in WAC 296-62-07441(5).)

(F) Respirator usage.

(G) Emergency medical examinations.

(H) Termination examination.

(I) Information to physician.

(J) Physician's medical opinion.

(K) Medical removal protection.

(L) Medical removal protection benefits.

(M) Multiple physician review.

(N) Alternate physician review.

(O) Information employer gives to employee.

(P) Recordkeeping.

(Q) Reporting on OSHA form 200.

(xi) The above mentioned summary of the medical surveillance provisions, the summary chart, and tables for the actions triggered at different levels of CdU, CdB and  $\beta_2\text{-M}$  (in subsection (5) of this section, Attachment 1) are included only for the purpose of facilitating understanding of the provisions of WAC 296-62-07423(3) of the final cadmium standard. The summary of the provisions, the summary chart, and the tables do not add to or reduce the requirements in WAC 296-62-07423(3).

(d) Recommendations to physicians.

(i) It is strongly recommended that patients with tubular proteinuria are counseled on: The hazards of smoking; avoidance of nephrotoxins and certain prescriptions and over-the-counter medications that may exacerbate kidney symptoms; how to control diabetes and/or blood pressure; proper hydration, diet, and exercise (Ex. 19-2). A list of prominent or common nephrotoxins is attached. (See subsection (6) of this section, Attachment 2.)

(ii) DO NOT CHELATE; KNOW WHICH DRUGS ARE NEPHROTOXINS OR ARE ASSOCIATED WITH NEPHRITIS.

(iii) The gravity of cadmium-induced renal damage is compounded by the fact there is no medical treatment to prevent or reduce the accumulation of cadmium in the kidney (Ex. 8-619). Dr. Friberg, a leading world expert on cadmium toxicity, indicated in 1992, that there is no form of chelating agent that could be used without substantial risk. He stated that tubular proteinuria has to be treated in the same way as other kidney disorders (Ex. 29).

(iv) After the results of a workers' biological monitoring or medical examination are received the employer is required to provide an information sheet to the patient, briefly explaining the significance of the results. (See subsection (7) of this section.)

(v) For additional information the physician is referred to the following additional resources:

(A) The physician can always obtain a copy of the OSHA final rule preamble, with its full discussion of the health effects, from OSHA's Computerized Information System (OCIS).

(B) The OSHA Docket Officer maintains a record of the OSHA rulemaking. The Cadmium Docket (H-057A), is located at 200 Constitution Ave. NW., Room N-2625, Washington, DC 20210; telephone: (202) 219-7894.

(C) The following articles and exhibits in particular from that docket (H-057A):

Exhibit number	Author and paper title
8-447	Lauwerys et. al., Guide for physicians, "Health Maintenance of Workers Exposed to Cadmium," published by the Cadmium Council.
4-67	Takenaka, S., H. Oldiges, H. Konig, D. Hochrainer, G. Oberdorster. "Carcinogenicity of Cadmium Chloride Aerosols in Wistar Rats." JNCI 70:367-373, 1983. (32)
4-68	Thun, M.J., T.M. Schnoor, A.B. Smith, W.E. Halperin, R.A. Lemen. "Mortality Among a Cohort of U.S. Cadmium Production Workers—An Update." JNCI 74(2):325-33, 1985. (8)
4-25	Elinder, C.G., Kjellstrom, T., Hogstedt, C., et al., "Cancer Mortality of Cadmium Workers." Brit. J. Ind. Med. 42:651-655, 1985. (14)
4-26	Ellis, K.J. et al., "Critical Concentrations of Cadmium in Human Renal Cortex: Dose Effect Studies to Cadmium Smelter Workers." J. Toxicol. Environ. Health 7:691-703, 1981. (76)
4-27	Ellis, K.J., S.H. Cohn and T.J. Smith. "Cadmium Inhalation Exposure Estimates: Their Significance with Respect to Kidney and Liver Cadmium Burden." J. Toxicol. Environ. Health 15:173-187, 1985.
4-28	Falck, F.Y., Jr., Fine, L.J., Smith, R.G., McClatchey, K.D., Annesley, T., England, B., and Schork, A.M. "Occupational Cadmium Exposure and Renal Status." Am. J. Ind. Med. 4:541, 1983. (64)

Exhibit number	Author and paper title
8-86A	Friberg, L., C.G. Elinder, et al., "Cadmium and Health a Toxicological and Epidemiological Appraisal, Volume I, Exposure, Dose, and Metabolism." CRC Press, Inc., Boca Raton, FL, 1986. (Available from the OSHA Technical Data Center)
8-86B	Friberg, L., C.G. Elinder, et al., "Cadmium and Health: A Toxicological and Epidemiological Appraisal, Volume II, Effects and Response." CRC Press, Inc., Boca Raton, FL, 1986. (Available from the OSHA Technical Data Center)
L-140-45	Elinder, C.G., "Cancer Mortality of Cadmium Workers," Brit. J. Ind. Med., 42, 651-655, 1985.
L-140-50	Thun, M., Elinder, C.G., Friberg, L., "Scientific Basis for an Occupational Standard for Cadmium, Am. J. Ind. Med., 20; 629-642, 1991.

(5) Information sheet. The information sheet (subsection (8) of this section, Attachment 3) or an equally explanatory one should be provided to you after any biological monitoring results are reviewed by the physician, or where applicable, after any medical examination.

(6) Attachment 1—Appendix A, summary chart and Tables A and B of actions triggered by biological monitoring.

(a) Summary chart: WAC 296-62-07423(3) Medical surveillance—Categorizing biological monitoring results.

(i) Biological monitoring results categories are set forth in Table A for the periods ending December 31, 1998, and for the period beginning January 1, 1999.

(ii) The results of the biological monitoring for the initial medical exam and the subsequent exams (~~shall~~) must determine an employee's biological monitoring result category.

(b) Actions triggered by biological monitoring.

(i) The actions triggered by biological monitoring for an employee are set forth in Table B.

(ii) The biological monitoring results for each employee under WAC 296-62-07423(3) (~~shall~~) must determine the actions required for that employee. That is, for any employee in biological monitoring category C, the employer will perform all of the actions for which there is an X in column C of Table B.

(iii) An employee is assigned the alphabetical category ("A" being the lowest) depending upon the test results of the three biological markers.

(iv) An employee is assigned category A if monitoring results for all three biological markers fall at or below the levels indicated in the table listed for category A.

(v) An employee is assigned category B if any monitoring result for any of the three biological markers fall within the range of levels indicated in the table listed for category B, providing no result exceeds the levels listed for category B.

(vi) An employee is assigned category C if any monitoring result for any of the three biological markers are above the levels listed for category C.

(c) The user of Tables A and B should know that these tables are provided only to facilitate understanding of the relevant provisions of WAC 296-62-07423. Tables A and B are not meant to add to or subtract from the requirements of those provisions.

Table A  
Categorization of Biological Monitoring Results  
Applicable Through 1998 Only

Biological marker	Monitoring result categories		
	A	B	C
Cadmium in urine (CdU) (µg/g creatinine)	≤3	>3 and ≤15	>15
β <sub>2</sub> -microglobulin (β <sub>2</sub> -M) (µg/g creatinine)	≤300	>300 and ≤1500	>1500*
Cadmium in blood (CdB) (µg/liter whole blood)	≤5	>5 and ≤15	>15

\* If an employee's β<sub>2</sub>-M levels are above 1,500 µg/g creatinine, in order for mandatory medical removal to be required (See WAC 296-62-07441, Appendix A Table B.), either the employee's CdU level must also be >3 µg/g creatinine or CdB level must also be >5 µg/liter whole blood.

Applicable Beginning January 1, 1999

Biological marker	Monitoring result categories		
	A	B	C
Cadmium in urine (CdU) (µg/g creatinine)	≤3	>3 and ≤7	>7
β <sub>2</sub> -microglobulin (β <sub>2</sub> -M) (µg/g creatinine)	≤300	>300 and ≤750	>750*
Cadmium in blood (CdB) (µg/liter whole blood)	≤5	>5 and ≤10	>10

\* If an employee's β<sub>2</sub>-M levels are above 750 µg/g creatinine, in order for mandatory medical removal to be required (See WAC 296-62-07441, Appendix A Table B.), either the employee's CdU level must also be >3 µg/g creatinine or CdB level must also be >5 µg/liter whole blood.

Table B—Actions determined by biological monitoring.

This table presents the actions required based on the monitoring result in Table A. Each item is a separate requirement in citing noncompliance. For example, a medical examination within ninety days for an employee in category B is separate from the requirement to administer a periodic medical examination for category B employees on an annual basis.

Table B  
Monitoring result category

Required actions	A <sup>1</sup>	B <sup>1</sup>	C <sup>1</sup>
	(1) Biological monitoring:		
(a) Annual.	X		
(b) Semiannual		X	
(c) Quarterly			X

	A <sup>1</sup>	B <sup>1</sup>	C <sup>1</sup>
(2) Medical examination:			
(a) Biennial	X		
(b) Annual.		X	
(c) Semiannual.			X
(d) Within 90 days		X	X
(3) Assess within two weeks:			
(a) Excess cadmium exposure		X	X
(b) Work practices		X	X
(c) Personal hygiene		X	X
(d) Respirator usage		X	X
(e) Smoking history		X	X
(f) Hygiene facilities		X	X
(g) Engineering controls		X	X
(h) Correct within 30 days		X	X
(i) Periodically assess exposures			X
(4) Discretionary medical removal		X	X
(5) Mandatory medical removal			X <sup>2</sup>

<sup>1</sup> For all employees covered by medical surveillance exclusively because of exposures prior to the effective date of this standard, if they are in Category A, the employer shall follow the requirements of WAC 296-62-07423 (3)(a)(ii) and (4)(e)(i). If they are in Category B or C, the employer shall follow the requirements of WAC 296-62-07423 (4)(e)(ii) and (iii).

<sup>2</sup> See footnote in Table A.

(7) Attachment 2, list of medications.

(a) A list of the more common medications that a physician, and the employee, may wish to review is likely to include some of the following:

- (i) Anticonvulsants: Paramethadione, phenytoin, trimethadone;
- (ii) Antihypertensive drugs: Captopril, methyldopa;
- (iii) Antimicrobials: Aminoglycosides, amphotericin B, cephalosporins, ethambutol;
- (iv) Antineoplastic agents: Cisplatin, methotrexate, mitomycin-C, nitrosoureas, radiation;
- (v) Sulfonamide diuretics: Acetazolamide, chlorthalidone, furosemide, thiazides;
- (vi) Halogenated alkanes, hydrocarbons, and solvents that may occur in some settings: Carbon tetrachloride, ethylene glycol, toluene; iodinated radiographic contrast media; nonsteroidal anti-inflammatory drugs; and
- (vii) Other miscellaneous compounds: Acetaminophen, allopurinol, amphetamines, azathioprine, cimetidine, cyclosporine, lithium, methoxyflurane, methysergide, D-penicillamine, phenacetin, phenendione.

(b) A list of drugs associated with acute interstitial nephritis includes:

- (i) Antimicrobial drugs: Cephalosporins, chloramphenicol, colistin, erythromycin, ethambutol, isoniazid, para-aminosalicylic acid, penicillins, polymyxin B, rifampin, sulfonamides, tetracyclines, and vancomycin;

(ii) Other miscellaneous drugs: Allopurinol, antipyrine, azathioprine, captopril, cimetidine, clofibrate, methyldopa, phenindione, phenylpropanolamine, phenytoin, probenecid, sulfapyrazone, sulfonamide diuretics, triamterene; and

(iii) Metals: Bismuth, gold. This list has been derived from commonly available medical textbooks (e.g., Ex. 14-18). The list has been included merely to facilitate the physician's, employer's, and employee's understanding. The list does not represent an official OSHA opinion or policy regarding the use of these medications for particular employees. The use of such medications should be under physician discretion.

(8) Attachment 3—Biological monitoring and medical examination results.

Employee \_\_\_\_\_  
 Testing \_\_\_\_\_  
 Date \_\_\_\_\_

Cadmium in Urine \_\_\_ µg/g Cr—Normal Levels: ≤=3 µg/g Cr.

Cadmium in Blood \_\_\_ µg/lwb—Normal Levels: ≤=5 µg/lwb.

Beta-2-microglobulin in Urine \_\_\_ µg/g Cr-Normal Levels: ≤=300 µg/g Cr.

Physical Examination Results:

N/A \_\_\_ Satisfactory \_\_\_  
 Unsatisfactory \_\_\_ (see physician again).

Physician's Review of Pulmonary Function Test:

N/A \_\_\_ Normal \_\_\_ Abnormal \_\_\_.

Next biological monitoring or medical examination scheduled for \_\_\_\_\_

(a) The biological monitoring program has been designed for three main purposes:

- (i) To identify employees at risk of adverse health effects from excess, chronic exposure to cadmium;
- (ii) To prevent cadmium-induced disease(s); and
- (iii) To detect and minimize existing cadmium-induced disease(s).

(b) The levels of cadmium in the urine and blood provide an estimate of the total amount of cadmium in the body. The amount of a specific protein in the urine (beta-2-microglobulin) indicates changes in kidney function. All three tests must be evaluated together. A single mildly elevated result may not be important if testing at a later time indicates that the results are normal and the workplace has been evaluated to decrease possible sources of cadmium exposure. The levels of cadmium or beta-2-microglobulin may change over a period of days to months and the time needed for those changes to occur is different for each worker.

(c) If the results for biological monitoring are above specific "high levels" (cadmium urine greater than 10 micrograms per gram of creatinine µg/g Cr), cadmium blood greater than 10 micrograms per liter of whole blood (µg/lwb), or beta-2-microglobulin greater than 1000 micrograms per gram of creatinine (µg/g Cr)), the worker has a much greater chance of developing other kidney diseases.

(d) One way to measure for kidney function is by measuring beta-2-microglobulin in the urine. Beta-2-microglobulin is a protein which is normally found in the blood as it is being filtered in the kidney, and the kidney reabsorbs or

returns almost all of the beta-2-microglobulin to the blood. A very small amount (less than 300 µg/g Cr in the urine) of beta-2-microglobulin is not reabsorbed into the blood, but is released in the urine. If cadmium damages the kidney, the amount of beta-2-microglobulin in the urine increases because the kidney cells are unable to reabsorb the beta-2-microglobulin normally. An increase in the amount of beta-2-microglobulin in the urine is a very early sign of kidney dysfunction. A small increase in beta-2-microglobulin in the urine will serve as an early warning sign that the worker may be absorbing cadmium from the air, cigarettes contaminated in the workplace, or eating in areas that are cadmium contaminated.

(e) Even if cadmium causes permanent changes in the kidney's ability to reabsorb beta-2-microglobulin, and the beta-2-microglobulin is above the "high levels," the loss of kidney function may not lead to any serious health problems. Also, renal function naturally declines as people age. The risk for changes in kidney function for workers who have biological monitoring results between the "normal values" and the "high levels" is not well known. Some people are more cadmium-tolerant, while others are more cadmium-susceptible.

(f) For anyone with even a slight increase of beta-2-microglobulin, cadmium in the urine, or cadmium in the blood, it is very important to protect the kidney from further damage. Kidney damage can come from other sources than excess cadmium-exposure so it is also recommended that if a worker's levels are "high" (~~he/she~~) they should receive counseling about drinking more water; avoiding cadmium-tainted tobacco and certain medications (nephrotoxins, acetaminophen); controlling diet, vitamin intake, blood pressure and diabetes; etc.

AMENDATORY SECTION (Amending WSR 93-21-075, filed 10/20/93, effective 12/1/93)

**WAC 296-62-07447 Appendix D—Occupational health history interview with reference to cadmium exposure directions.**

(To be read by employee and signed prior to the interview.)

Please answer the questions you will be asked as completely and carefully as you can. These questions are asked of everyone who works with cadmium. You will also be asked to give blood and urine samples. The doctor will give your employer a written opinion on whether you are physically capable of working with cadmium. Legally, the doctor cannot share personal information you may tell (~~him/her~~) them with your employer. The following information is considered strictly confidential. The results of the tests will go to you, your doctor and your employer. You will also receive an information sheet explaining the results of any biological monitoring or physical examinations performed. If you are just being hired, the results of this interview and examination will be used to:

- (1) Establish your health status and see if working with cadmium might be expected to cause unusual problems;
- (2) Determine your health status today and see if there are changes over time;

(3) See if you can wear a respirator safely. If you are not a new hire: WISHA says that everyone who works with cadmium can have periodic medical examinations performed by a doctor. The reasons for this are:

- (a) If there are changes in your health, either because of cadmium or some other reason, to find them early;
- (b) To prevent kidney damage.

Please sign below.

I have read these directions and understand them:

\_\_\_\_\_  
Employee signature

\_\_\_\_\_  
Date

Thank you for answering these questions. (Suggested Format)

Name .....

Age .....

Social Security # .....

Company .....

Job .....

Type of Preplacement Exam:

Periodic  Termination  Initial  Other

Blood Pressure .....

Pulse Rate .....

1. How long have you worked at the job listed above?

Not yet hired  Number of months  Number of years

2. Job Duties etc.

.....

.....

3. Have you ever been told by a doctor that you had bronchitis?

Yes  No

If yes, how long ago?

Number of months  Number of years

4. Have you ever been told by a doctor that you had emphysema?

Yes  No

If yes, how long ago?

Number of years  Number of months

5. Have you ever been told by a doctor that you had other lung problems?

Yes  No

If yes, please describe type of lung problems and when you had these problems

.....

.....

- 6. In the past year, have you had a cough?  
 Yes  No  
 If yes, did you cough up sputum?  
 Yes  No  
 If yes, how long did the cough with sputum production last?  
 Less than 3 months  3 months or longer  
 If yes, for how many years have you had episodes of cough with sputum production lasting this long?  
 Less than one  1  2  Longer than 2
- 7. Have you ever smoked cigarettes?  
 Yes  No
- 8. Do you now smoke cigarettes?  
 Yes  No
- 9. If you smoke or have smoked cigarettes, for how many years have you smoked, or did you smoke?  
 Less than 1 year  Number of years  
 What is or was the greatest number of packs per day that you have smoked?  
 Number of packs  
 If you quit smoking cigarettes, how many years ago did you quit?  
 Less than 1 year  Number of years  
 How many packs a day do you now smoke?  
 Number of packs per day
- 10. Have you ever been told by a doctor that you had a kidney or urinary tract disease or disorder?  
 Yes  No
- 11. Have you ever had any of these disorders?  
 Kidney stones  Yes  No  
 Protein in urine  Yes  No  
 Blood in urine  Yes  No  
 Difficulty urinating  Yes  No  
 Other kidney/Urinary disorders  Yes  No  
 Please describe problems, age, treatment, and follow up for any kidney or urinary problems you have had:  
 .....  
 .....
- 12. Have you ever been told by a doctor or other health care provider who took your blood pressure that your blood pressure was high?  
 Yes  No
- 13. Have you ever been advised to take any blood pressure medication?  
 Yes  No
- 14. Are you presently taking any blood pressure medication?  
 Yes  No
- 15. Are you presently taking any other medication?  
 Yes  No

- 16. Please list any blood pressure or other medications and describe how long you have been taking each one:  
 Medicine:  
 .....  
 .....  
 .....  
 How Long Taken  
 .....  
 .....
- 17. Have you ever been told by a doctor that you have diabetes? (sugar in your blood or urine)  
 Yes  No  
 If yes, do you presently see a doctor about your diabetes?  
 Yes  No  
 If yes, how do you control your blood sugar?  
 Diet alone  Diet plus oral medicine  Diet plus insulin (injection)
- 18. Have you ever been told by a doctor that you had:  
 Anemia  Yes  No  
 A low blood count?  Yes  No
- 19. Do you presently feel that you tire or run out of energy sooner than normal or sooner than other people your age?  
 Yes  No  
 If yes, for how long have you felt that you tire easily?  
 Less than 1 year  Number of years
- 20. Have you given blood within the last year?  
 Yes  No  
 If yes, how many times?  
 Number of times  
 How long ago was the last time you gave blood?  
 Less than 1 month  Number of months
- 21. Within the last year have you had any injuries with heavy bleeding?  
 Yes  No  
 If yes, how long ago?  
 Less than 1 month  Number of months  
 describe: .....  
 .....  
 .....
- 22. Have you recently had any surgery?  
 Yes  No  
 If yes, please describe: .....  
 .....  
 .....
- 23. Have you seen any blood lately in your stool or after a bowel movement?  
 Yes  No

24. Have you ever had a test for blood in your stool?  
 Yes  No  
 If yes, did the test show any blood in the stool?  
 Yes  No  
 What further evaluation and treatment were done? .....

The following questions pertain to the ability to wear a respirator. Additional information for the physician can be found in The Respiratory Protective Devices Manual.

25. Have you ever been told by a doctor that you have asthma?  
 Yes  No  
 If yes, are you presently taking any medication for asthma?  
 Mark all that apply.  Shots  Pills  Inhaler

26. Have you ever had a heart attack?  
 Yes  No  
 If yes, how long ago?  
 Number of years  Number of months

27. Have you ever had pains in your chest?  
 Yes  No  
 If yes, when did it usually happen?  
 While resting  While working  While exercising  Activity didn't matter

28. Have you ever had a thyroid problem?  
 Yes  No

29. Have you ever had a seizure or fits?  
 Yes  No

30. Have you ever had a stroke (cerebrovascular accident)?  
 Yes  No

31. Have you ever had a ruptured eardrum or a serious hearing problem?  
 Yes  No

32. Do you now have a claustrophobia, meaning fear of crowded or closed in spaces or any psychological problems that would make it hard for you to wear a respirator?  
 Yes  No  
 The following questions pertain to reproductive history.

33. Have you or your partner had a problem conceiving a child?  
 Yes  No  
 If yes, specify:  Self  Present mate  Previous mate

34. Have you or your partner consulted a physician for a fertility or other reproductive problem?  
 Yes  No  
 If yes, specify who consulted the physician:  Self  Spouse/partner  Self and partner  
 If yes, specify diagnosis made: .....

35. Have you or your partner ever conceived a child resulting in a miscarriage, still birth or deformed offspring?  
 Yes  No  
 If yes, specify:  Miscarriage  Still birth  Deformed offspring  
 If outcome was a deformed offspring, please specify type: .....

36. Was this outcome a result of a pregnancy of:  Yours with present partner  Yours with a previous partner

37. Did the timing of any abnormal pregnancy outcome coincide with present employment?  
 Yes  No  
 List dates of occurrences: .....

38. What is the occupation of your spouse or partner?  
 .....

For Women Only

39. Do you have menstrual periods?  
 Yes  No  
 Have you had menstrual irregularities?  
 Yes  No  
 If yes, specify type: .....

If yes, what was the approximated date this problem began?  
 Approximate date problem stopped? .....

For Men Only

40. Have you ever been diagnosed by a physician as having prostate gland problem(s)?  
 Yes  No  
 If yes, please describe type of problem(s) and what was done to evaluate and treat the problem(s): .....

**Reviser's note:** The brackets and enclosed material in the text of the above section occurred in the copy filed by the agency and appear in the Register pursuant to the requirements of RCW 34.08.040.

AMENDATORY SECTION (Amending WSR 14-07-086, filed 3/18/14, effective 5/1/14)

**WAC 296-62-07460 1,3-Butadiene.** (1) Scope and application.

(a) This section applies to all occupational exposures to 1,3-Butadiene (BD), Chemical Abstracts Service Registry No. 106-99-0, except as provided in (b) of this subsection.

(b)(i) Except for the recordkeeping provisions in subsection (13)(a) of this section, this section does not apply to the processing, use, or handling of products containing BD or to other work operations and streams in which BD is present where objective data are reasonably relied upon that demon-

strate the work operation or the product or the group of products or operations to which it belongs may not reasonably be foreseen to release BD in airborne concentrations at or above the action level or in excess of the STEL under the expected conditions of processing, use, or handling that will cause the greatest possible release or in any plausible accident.

(ii) This section also does not apply to work operations, products or streams where the only exposure to BD is from liquid mixtures containing 0.1% or less of BD by volume or the vapors released from such liquids, unless objective data become available that show that airborne concentrations generated by such mixtures can exceed the action level or STEL under reasonably predictable conditions of processing, use or handling that will cause the greatest possible release.

(iii) Except for labeling requirements and requirements for emergency response, this section does not apply to the storage, transportation, distribution or sale of BD or liquid mixtures in intact containers or in transportation pipelines sealed in such a manner as to fully contain BD vapors or liquids.

(c) Where products or processes containing BD are exempted under (b) of this subsection, the employer (~~shall~~) must maintain records of the objective data supporting that exemption and the basis for the employer's reliance on the data, as provided in subsection (13)(a) of this section.

(2) Definitions: For the purpose of this section, the following definitions shall apply:

(~~"Action level" means~~) **Action level.** A concentration of airborne BD of 0.5 ppm calculated as an 8-hour time-weighted average.

(~~"Authorized person" means~~) **Authorized person.** Any person specifically designated by the employer, whose duties require entrance into a regulated area, or a person entering such an area as a designated representative of employees to exercise the right to observe monitoring and measuring procedures under subsection (4)(h) of this section, or a person designated under the WISH Act or regulations issued under the WISH Act to enter a regulated area.

(~~"1,3-Butadiene" means~~) **1,3-Butadiene.** An organic compound with chemical formula  $\text{CH}_2=\text{CH}-\text{CH}=\text{CH}_2$  that has a molecular weight of approximately 54.15 gm/mole.

(~~"Business day" means~~) **Business day.** Any Monday through Friday, except those days designated as federal, state, local or company specific holidays.

(~~"Complete blood count (CBC)" means~~) **Complete blood count (CBC).** Laboratory tests performed on whole blood specimens and includes the following: White blood cell count (WBC), hematocrit (Hct), red blood cell count (RBC), hemoglobin (Hgb), differential count of white blood cells, red blood cell morphology, red blood cell indices, and platelet count.

(~~"Day" means~~) **Day.** Any part of a calendar day.

(~~"Director" means~~) **Director.** The director of the department of labor and industries, or authorized representatives.

(~~"Emergency situation" means~~) **Emergency situation.** Any occurrence such as, but not limited to, equipment failure, rupture of containers, or failure of control equipment that may or does result in an uncontrolled significant release of BD.

(~~"Employee exposure" means~~) **Employee exposure.** Exposure of a worker to airborne concentrations of BD which would occur if the employee were not using respiratory protective equipment.

(~~"Objective data" means~~) **Objective data.** Monitoring data, or mathematical modelling or calculations based on composition, chemical and physical properties of a material, stream or product.

(~~"Permissible exposure limits (PELs)" means~~) **Permissible exposure limits (PELs).** Either the 8-hour time-weighted average (8-hour TWA) exposure or the short-term exposure limit (STEL).

(~~"Physician or other licensed health care professional is~~) **Physician or other licensed health care professional.** An individual whose legally permitted scope of practice (i.e., license, registration, or certification) allows (~~him or her~~) them to independently provide or be delegated the responsibility to provide one or more of the specific health care services required by (k) of this subsection.

(~~"Regulated area" means~~) **Regulated area.** Any area where airborne concentrations of BD exceed or can reasonably be expected to exceed the 8-hour time-weighted average (8-hour TWA) exposure of 1 ppm or the short-term exposure limit (STEL) of 5 ppm for 15 minutes.

(~~"This section" means~~) **This section.** This 1,3-butadiene standard.

(3) Permissible exposure limits (PELs).

(a) Time-weighted average (TWA) limit. The employer (~~shall~~) must ensure that no employee is exposed to an airborne concentration of BD in excess of one part BD per million parts of air (ppm) measured as an eight (8)-hour time-weighted average.

(b) Short-term exposure limit (STEL). The employer (~~shall~~) must ensure that no employee is exposed to an airborne concentration of BD in excess of five parts of BD per million parts of air (5 ppm) as determined over a sampling period of fifteen minutes.

(4) Exposure monitoring.

(a) General.

(i) Determinations of employee exposure (~~shall~~) must be made from breathing zone air samples that are representative of the 8-hour TWA and 15-minute short-term exposures of each employee.

(ii) Representative 8-hour TWA employee exposure (~~shall~~) must be determined on the basis of one or more samples representing full-shift exposure for each shift and for each job classification in each work area.

(iii) Representative 15-minute short-term employee exposures (~~shall~~) must be determined on the basis of one or more samples representing 15-minute exposures associated with operations that are most likely to produce exposures above the STEL for each shift and for each job classification in each work area.

(iv) Except for the initial monitoring required under (b) of this subsection, where the employer can document that exposure levels are equivalent for similar operations on different work shifts, the employer need only determine representative employee exposure for that operation from the shift during which the highest exposure is expected.

## (b) Initial monitoring.

(i) Each employer who has a workplace or work operation covered by this section, ~~((shall))~~ must perform initial monitoring to determine accurately the airborne concentrations of BD to which employees may be exposed, or ~~((shall))~~ must rely on objective data pursuant to subsection (1)(b)(i) of this section to fulfill this requirement. The initial monitoring required under this subitem ~~((shall))~~ must be completed within sixty days of the introduction of BD into the workplace.

(ii) Where the employer has monitored within two years prior to the effective date of this section and the monitoring satisfies all other requirements of this section, the employer may rely on such earlier monitoring results to satisfy the requirements of (b)(i) of this subsection, provided that the conditions under which the initial monitoring was conducted have not changed in a manner that may result in new or additional exposures.

## (c) Periodic monitoring and its frequency.

(i) If the initial monitoring required by (b) of this subsection reveals employee exposure to be at or above the action level but at or below both the 8-hour TWA limit and the STEL, the employer ~~((shall))~~ must repeat the representative monitoring required by (a) of this subsection every twelve months.

(ii) If the initial monitoring required by (b) of this subsection reveals employee exposure to be above the 8-hour TWA limit, the employer ~~((shall))~~ must repeat the representative monitoring required by (a)(ii) of this subsection at least every three months until the employer has collected two samples per quarter (each at least 7 days apart) within a two-year period, after which such monitoring must occur at least every six months.

(iii) If the initial monitoring required by (b) of this subsection reveals employee exposure to be above the STEL, the employer ~~((shall))~~ must repeat the representative monitoring required by (a)(iii) of this subsection at least every three months until the employer has collected two samples per quarter (each at least 7 days apart) within a two-year period, after which such monitoring must occur at least every six months.

(iv) The employer may alter the monitoring schedule from every six months to annually for any required representative monitoring for which two consecutive measurements taken at least 7 days apart indicate that employee exposure has decreased to or below the 8-hour TWA, but is at or above the action level.

## (d) Termination of monitoring.

(i) If the initial monitoring required by (b) of this subsection reveals employee exposure to be below the action level and at or below the STEL, the employer may discontinue the monitoring for employees whose exposures are represented by the initial monitoring.

(ii) If the periodic monitoring required by (c) of this subsection reveals that employee exposures, as indicated by at least two consecutive measurements taken at least 7 days apart, are below the action level and at or below the STEL, the employer may discontinue the monitoring for those employees who are represented by such monitoring.

## (e) Additional monitoring.

(i) The employer ~~((shall))~~ must institute the exposure monitoring required under subsection (4) of this section whenever there has been a change in the production, process, control equipment, personnel or work practices that may result in new or additional exposures to BD or when the employer has any reason to suspect that a change may result in new or additional exposures.

(ii) Whenever spills, leaks, ruptures or other breakdowns occur that may lead to employee exposure above the 8-hour TWA limit or above the STEL, the employer ~~((shall))~~ must monitor (using leak source, such as direct reading instruments, area or personal monitoring), after the cleanup of the spill or repair of the leak, rupture or other breakdown, to ensure that exposures have returned to the level that existed prior to the incident.

## (f) Accuracy of monitoring.

Monitoring ~~((shall))~~ must be accurate, at a confidence level of 95 percent, to within plus or minus 25 percent for airborne concentrations of BD at or above the 1 ppm TWA limit and to within plus or minus 35 percent for airborne concentrations of BD at or above the action level of 0.5 ppm and below the 1 ppm TWA limit.

## (g) Employee notification of monitoring results.

(i) The employer ~~((shall))~~ must, within 5 business days after the receipt of the results of any monitoring performed under this section, notify the affected employees of these results in writing either individually or by posting of results in an appropriate location that is accessible to affected employees.

(ii) The employer ~~((shall))~~ must, within 15 business days after receipt of any monitoring performed under this section indicating the 8-hour TWA or STEL has been exceeded, provide the affected employees, in writing, with information on the corrective action being taken by the employer to reduce employee exposure to or below the 8-hour TWA or STEL and the schedule for completion of this action.

## (h) Observation of monitoring.

(i) Employee observation. The employer ~~((shall))~~ must provide affected employees or their designated representatives an opportunity to observe any monitoring of employee exposure to BD conducted in accordance with this section.

(ii) Observation procedures. When observation of the monitoring of employee exposure to BD requires entry into an area where the use of protective clothing or equipment is required, the employer ~~((shall))~~ must provide the observer at no cost with protective clothing and equipment, and ~~((shall))~~ must ensure that the observer uses this equipment and complies with all other applicable safety and health procedures.

## (5) Regulated areas.

(a) The employer ~~((shall))~~ must establish a regulated area wherever occupational exposures to airborne concentrations of BD exceed or can reasonably be expected to exceed the permissible exposure limits, either the 8-hour TWA or the STEL.

(b) Access to regulated areas ~~((shall))~~ must be limited to authorized persons.

(c) Regulated areas ~~((shall))~~ must be demarcated from the rest of the workplace in any manner that minimizes the

number of employees exposed to BD within the regulated area.

(d) An employer at a multiemployer worksite who establishes a regulated area ~~((shall))~~ must communicate the access restrictions and locations of these areas to other employers with work operations at that worksite whose employees may have access to these areas.

(6) Methods of compliance.

(a) Engineering controls and work practices.

(i) The employer ~~((shall))~~ must institute engineering controls and work practices to reduce and maintain employee exposure to or below the PELs, except to the extent that the employer can establish that these controls are not feasible or where subsection (8)(a)(i) of this section applies.

(ii) Wherever the feasible engineering controls and work practices which can be instituted are not sufficient to reduce employee exposure to or below the 8-hour TWA or STEL, the employer ~~((shall))~~ must use them to reduce employee exposure to the lowest levels achievable by these controls and ~~((shall))~~ must supplement them by the use of respiratory protection that complies with the requirements of subsection (8) of this section.

(b) Compliance plan.

(i) Where any exposures are over the PELs, the employer ~~((shall))~~ must establish and implement a written plan to reduce employee exposure to or below the PELs primarily by means of engineering and work practice controls, as required by (a) of this subsection, and by the use of respiratory protection where required or permitted under this section. No compliance plan is required if all exposures are under the PELs.

(ii) The written compliance plan ~~((shall))~~ must include a schedule for the development and implementation of the engineering controls and work practice controls including periodic leak detection surveys.

(iii) Copies of the compliance plan required in (b) of this subsection ~~((shall))~~ must be furnished upon request for examination and copying to the director, affected employees and designated employee representatives. Such plans ~~((shall))~~ must be reviewed at least every 12 months, and ~~((shall))~~ must be updated as necessary to reflect significant changes in the status of the employer's compliance program.

(iv) The employer ~~((shall))~~ must not implement a schedule of employee rotation as a means of compliance with the PELs.

(7) Exposure goal program.

(a) For those operations and job classifications where employee exposures are greater than the action level, in addition to compliance with the PELs, the employer ~~((shall))~~ must have an exposure goal program that is intended to limit employee exposures to below the action level during normal operations.

(b) Written plans for the exposure goal program ~~((shall))~~ must be furnished upon request for examination and copying to the director, affected employees and designated employee representatives.

(c) Such plans ~~((shall))~~ must be updated as necessary to reflect significant changes in the status of the exposure goal program.

(d) Respirator use is not required in the exposure goal program.

(e) The exposure goal program ~~((shall))~~ must include the following items unless the employer can demonstrate that the item is not feasible, will have no significant effect in reducing employee exposures, or is not necessary to achieve exposures below the action level:

(i) A leak prevention, detection, and repair program.

(ii) A program for maintaining the effectiveness of local exhaust ventilation systems.

(iii) The use of pump exposure control technology such as, but not limited to, mechanical double-sealed or seal-less pumps.

(iv) Gauging devices designed to limit employee exposure, such as magnetic gauges on rail cars.

(v) Unloading devices designed to limit employee exposure, such as a vapor return system.

(vi) A program to maintain BD concentration below the action level in control rooms by use of engineering controls.

(8) Respiratory protection.

(a) General. For employees who use respirators required by this section, the employer must provide each employee an appropriate respirator that complies with the requirements of this subsection. Respirators must be used during:

(i) Periods necessary to install or implement feasible engineering and work-practice controls;

(ii) Nonroutine work operations that are performed infrequently and for which exposures are limited in duration;

(iii) Work operations for which feasible engineering controls and work-practice controls are not yet sufficient to reduce employee exposures to or below the PELs;

(iv) Emergencies.

(b) Respirator program.

(i) The employer must implement a respiratory protection program as required by chapter 296-842 WAC, except WAC 296-842-13005 and 296-842-14005, which covers each employee required by this section to use a respirator.

(ii) If air-purifying respirators are used, the employer must replace the air-purifying filter elements according to the replacement schedule set for the class of respirators listed in Table 1 of this section, and at the beginning of each work shift.

(iii) Instead of using the replacement schedule listed in Table 1 of this section, the employer may replace cartridges or canisters at 90% of their expiration service life, provided the employer:

(A) Demonstrates that employees will be adequately protected by this procedure;

(B) Uses BD breakthrough data for this purpose that have been derived from tests conducted under worst-case conditions of humidity, temperature, and air-flow rate through the filter element, and the employer also describes the data supporting the cartridge- or canister-change schedule, as well as the basis for using the data in the employer's respirator program.

(iv) A label must be attached to each filter element to indicate the date and time it is first installed on the respirator.

(v) If NIOSH approves an end-of-service-life indicator (ESLI) for an air-purifying filter element, the element may be used until the ESLI shows no further useful service life or until the element is replaced at the beginning of the next work shift, whichever occurs first.

(vi) Regardless of the air-purifying element used, if an employee detects the odor of BD, the employer must replace the air-purifying element immediately.

(c) Respirator selection.

(i) The employer must select appropriate respirators from Table 1 of this section.

**Table 1. - Minimum Requirements for Respiratory Protection for Airborne BD**

Concentration of Airborne BD (ppm) or condition of use	Minimum required respirator
Less than or equal to 5 ppm (5 times PEL)	(a) Air-purifying half mask or full facepiece respirator equipped with approved BD or organic vapor cartridges or canisters. Cartridges or canisters shall be replaced every 4 hours.
Less than or equal to 10 ppm (10 times PEL)	(a) Air-purifying half mask or full facepiece respirator equipped with approved BD or organic vapor cartridges or canisters. Cartridges or canisters shall be replaced every 3 hours.
Less than or equal to 25 ppm (25 times PEL)	(a) Air-purifying full facepiece respirator equipped with approved BD or organic vapor cartridges or canisters. Cartridges or canisters shall be replaced every 2 hours.  (b) Any powered air-purifying respirator equipped with approved BD or organic vapor cartridges. PAPR cartridges shall be replaced every 2 hours.  (c) Continuous flow supplied air respirator equipped with a hood or helmet.
Less than or equal to 50 ppm (50 times PEL)	(a) Air-purifying full facepiece respirator equipped with approved BD or organic vapor cartridges or canisters. Cartridges or canisters shall be replaced every 1 hour.

Concentration of Airborne BD (ppm) or condition of use	Minimum required respirator
Less than or equal to 1,000 ppm (1,000 times PEL)	(b) Powered air purifying respirator equipped with a tight-fitting facepiece and an approved BD or organic vapor cartridges. PAPR cartridges shall be replaced every 1 hour.  (a) Supplied air respirator equipped with a half mask or full facepiece and operated in a pressure demand or other positive pressure mode.
Greater than 1,000 ppm	(a) Self-contained breathing unknown concentration, or apparatus equipped with a fire fighting full facepiece and operated in a pressure demand or other positive pressure mode.  (b) Any supplied air respirator equipped with a full facepiece and operated in a pressure demand or other positive pressure mode in combination with an auxiliary self-contained breathing apparatus operated in a pressure demand or other positive pressure mode.
Escape from IDLH Conditions	(a) Any positive pressure self-contained breathing apparatus with an appropriate service life.  (b) Any air-purifying full facepiece respirator equipped with a front or back mounted BD or organic vapor canister.

Notes: Respirators approved for use in higher concentrations are permitted to be used in lower concentrations. Full facepiece is required when eye irritation is anticipated.

(ii) Air-purifying respirators must have filter elements certified by NIOSH for organic vapor or BD.

(iii) When an employee whose job requires the use of a respirator cannot use a negative-pressure respirator, the employer must provide the employee with a respirator that has less breathing resistance than the negative-pressure respirator, such as a powered air-purifying respirator or supplied-air respirator, when the employee is able to use it and if it provides the employee adequate protection.

(9) Protective clothing and equipment. Where appropriate to prevent eye contact and limit dermal exposure to BD, the employer ((shall)) must provide protective clothing and equipment at no cost to the employee and ((shall)) must ensure its use. Eye and face protection ((shall)) must meet the requirements of WAC 296-800-160.

(10) Emergency situations. Written plan. A written plan for emergency situations ((shall)) must be developed, or an existing plan ((shall)) must be modified, to contain the applicable elements specified in WAC 296-24-567(7) Employee emergency plans and fire prevention plans, and in ((WAC 296-62-3112)) chapter 296-843 WAC, Hazardous waste operations ((and emergency responses)), for each workplace where there is a possibility of an emergency.

(11) Medical screening and surveillance.

(a) Employees covered. The employer ((shall)) must institute a medical screening and surveillance program as specified in this subsection for:

(i) Each employee with exposure to BD at concentrations at or above the action level on 30 or more days or for employees who have or may have exposure to BD at or above the PELs on 10 or more days a year;

(ii) Employers (including successor owners) ((shall)) must continue to provide medical screening and surveillance for employees, even after transfer to a non-BD exposed job and regardless of when the employee is transferred, whose work histories suggest exposure to BD:

(A) At or above the PELs on 30 or more days a year for 10 or more years;

(B) At or above the action level on 60 or more days a year for 10 or more years; or

(C) Above 10 ppm on 30 or more days in any past year; and

(iii) Each employee exposed to BD following an emergency situation.

(b) Program administration.

(i) The employer ((shall)) must ensure that the health questionnaire, physical examination and medical procedures are provided without cost to the employee, without loss of pay, and at a reasonable time and place.

(ii) Physical examinations, health questionnaires, and medical procedures ((shall)) must be performed or administered by a physician or other licensed health care professional.

(iii) Laboratory tests ((shall)) must be conducted by an accredited laboratory.

(c) Frequency of medical screening activities. The employer ((shall)) must make medical screening available on the following schedule:

(i) For each employee covered under (a)(i) and (ii) of this subsection, a health questionnaire and complete blood count (CBC) with differential and platelet count every year, and a physical examination as specified below:

(A) An initial physical examination that meets the requirements of this rule, if twelve months or more have elapsed since the last physical examination conducted as part of a medical screening program for BD exposure;

(B) Before assumption of duties by the employee in a job with BD exposure;

(C) Every 3 years after the initial physical examination;

(D) At the discretion of the physician or other licensed health care professional reviewing the annual health questionnaire and CBC;

(E) At the time of employee reassignment to an area where exposure to BD is below the action level, if the employee's past exposure history does not meet the criteria of (a)(ii) of this subsection for continued coverage in the screening and surveillance program, and if twelve months or more have elapsed since the last physical examination; and

(F) At termination of employment if twelve months or more have elapsed since the last physical examination.

(ii) Following an emergency situation, medical screening ((shall)) must be conducted as quickly as possible, but not later than 48 hours after the exposure.

(iii) For each employee who must wear a respirator, physical ability to perform the work and use the respirator must be determined as required by chapter 296-842 WAC.

(d) Content of medical screening.

(i) Medical screening for employees covered by (a)(i) and (ii) of this subsection ((shall)) must include:

(A) A baseline health questionnaire that includes a comprehensive occupational and health history and is updated annually. Particular emphasis ((shall)) must be placed on the hematopoietic and reticuloendothelial systems, including exposure to chemicals, in addition to BD, that may have an adverse effect on these systems, the presence of signs and symptoms that might be related to disorders of these systems, and any other information determined by the examining physician or other licensed health care professional to be necessary to evaluate whether the employee is at increased risk of material impairment of health from BD exposure. Health questionnaires ((shall)) must consist of the sample forms in Appendix C to this section, or be equivalent to those samples;

(B) A complete physical examination, with special emphasis on the liver, spleen, lymph nodes, and skin;

(C) A CBC; and

(D) Any other test which the examining physician or other licensed health care professional deems necessary to evaluate whether the employee may be at increased risk from exposure to BD.

(ii) Medical screening for employees exposed to BD in an emergency situation ((shall)) must focus on the acute effects of BD exposure and at a minimum include: A CBC within 48 hours of the exposure and then monthly for three months; and a physical examination if the employee reports irritation of the eyes, nose, throat, lungs, or skin, blurred vision, coughing, drowsiness, nausea, or headache. Continued employee participation in the medical screening and surveillance program, beyond these minimum requirements, ((shall)) must be at the discretion of the physician or other licensed health care professional.

(e) Additional medical evaluations and referrals.

(i) Where the results of medical screening indicate abnormalities of the hematopoietic or reticuloendothelial systems, for which a nonoccupational cause is not readily apparent, the examining physician or other licensed health care professional ((shall)) must refer the employee to an appropriate specialist for further evaluation and ((shall)) must make available to the specialist the results of the medical screening.

(ii) The specialist to whom the employee is referred under this subsection ((~~shall~~)) must determine the appropriate content for the medical evaluation, e.g., examinations, diagnostic tests and procedures, etc.

(f) Information provided to the physician or other licensed health care professional. The employer ((~~shall~~)) must provide the following information to the examining physician or other licensed health care professional involved in the evaluation:

(i) A copy of this section including its appendices;

(ii) A description of the affected employee's duties as they relate to the employee's BD exposure;

(iii) The employee's actual or representative BD exposure level during employment tenure, including exposure incurred in an emergency situation;

(iv) A description of pertinent personal protective equipment used or to be used; and

(v) Information, when available, from previous employment-related medical evaluations of the affected employee which is not otherwise available to the physician or other licensed health care professional or the specialist.

(g) The written medical opinion.

(i) For each medical evaluation required by this section, the employer ((~~shall~~)) must ensure that the physician or other licensed health care professional produces a written opinion and provides a copy to the employer and the employee within 15 business days of the evaluation. The written opinion ((~~shall~~)) must be limited to the following information:

(A) The occupationally pertinent results of the medical evaluation;

(B) A medical opinion concerning whether the employee has any detected medical conditions which would place the employee's health at increased risk of material impairment from exposure to BD;

(C) Any recommended limitations upon the employee's exposure to BD; and

(D) A statement that the employee has been informed of the results of the medical evaluation and any medical conditions resulting from BD exposure that require further explanation or treatment.

(ii) The written medical opinion provided to the employer ((~~shall~~)) must not reveal specific records, findings, and diagnoses that have no bearing on the employee's ability to work with BD.

Note: This provision does not negate the ethical obligation of the physician or other licensed health care professional to transmit any other adverse findings directly to the employee.

(h) Medical surveillance.

(i) The employer ((~~shall~~)) must ensure that information obtained from the medical screening program activities is aggregated (with all personal identifiers removed) and periodically reviewed, to ascertain whether the health of the employee population of that employer is adversely affected by exposure to BD.

(ii) Information learned from medical surveillance activities must be disseminated to covered employees, as defined in (a) of this subsection, in a manner that ensures the confidentiality of individual medical information.

(12) Communication of BD hazards.

(a) Hazard communication - General.

(i) Chemical manufacturers, importers, distributors and employers ((~~shall~~)) must comply with all requirements of the Hazard Communication Standard (HCS), WAC 296-901-140 for BD.

(ii) In classifying the hazards of BD at least the following hazards are to be addressed: Cancer; eye and respiratory tract irritation; central nervous system effects; and flammability.

(iii) Employers ((~~shall~~)) must include BD in the hazard communication program established to comply with the HCS, WAC 296-901-140. Employers ((~~shall~~)) must ensure that each employee has access to labels on containers of BD and to safety data sheets, and is trained in accordance with the requirements of HCS and (b) of this subsection.

(b) Employee information and training.

(i) The employer ((~~shall~~)) must train each employee who is potentially exposed to BD at or above the action level or the STEL in accordance with the requirements of WAC 296-901-140(7) Hazard communication.

(ii) The employer ((~~shall~~)) must institute a training program for all employees who are potentially exposed to BD at or above the action level or the STEL, ensure employee participation in the program and maintain a record of the contents of such program.

(iii) Training ((~~shall~~)) must be provided prior to or at the time of initial assignment to a job potentially involving exposure to BD at or above the action level or STEL and at least annually thereafter.

(iv) The training program ((~~shall~~)) must be conducted in a manner that the employee is able to understand. The employer ((~~shall~~)) must ensure that each employee exposed to BD over the action level or STEL is informed of the following:

(A) The health hazards associated with BD exposure, and the purpose and a description of the medical screening and surveillance program required by this section;

(B) The quantity, location, manner of use, release, and storage of BD and the specific operations that could result in exposure to BD, especially exposures above the PEL or STEL;

(C) The engineering controls and work practices associated with the employee's job assignment, and emergency procedures and personal protective equipment;

(D) The measures employees can take to protect themselves from exposure to BD;

(E) The contents of this standard and its appendices; and

(F) The right of each employee exposed to BD at or above the action level or STEL to obtain:

(I) Medical examinations as required by subsection (10) of this section at no cost to the employee;

(II) The employee's medical records required to be maintained by subsection (13)(c) of this section; and

(III) All air monitoring results representing the employee's exposure to BD and required to be kept by subsection (13)(b) of this section.

(c) Access to information and training materials.

(i) The employer ((~~shall~~)) must make a copy of this standard and its appendices readily available without cost to all affected employees and their designated representatives and ((~~shall~~)) must provide a copy if requested.

(ii) The employer ~~((shall))~~ must provide to the director, or the designated employee representatives, upon request, all materials relating to the employee information and the training program.

(13) Recordkeeping.

(a) Objective data for exemption from initial monitoring.

(i) Where the processing, use, or handling of products or streams made from or containing BD are exempted from other requirements of this section under subsection (1)(b) of this section, or where objective data have been relied on in lieu of initial monitoring under subsection (4)(b)(ii) of this section, the employer ~~((shall))~~ must establish and maintain a record of the objective data reasonably relied upon in support of the exemption.

(ii) This record ~~((shall))~~ must include at least the following information:

(A) The product or activity qualifying for exemption;

(B) The source of the objective data;

(C) The testing protocol, results of testing, and analysis of the material for the release of BD;

(D) A description of the operation exempted and how the data support the exemption; and

(E) Other data relevant to the operations, materials, processing, or employee exposures covered by the exemption.

(iii) The employer ~~((shall))~~ must maintain this record for the duration of the employer's reliance upon such objective data.

(b) Exposure measurements.

(i) The employer ~~((shall))~~ must establish and maintain an accurate record of all measurements taken to monitor employee exposure to BD as prescribed in subsection (4) of this section.

(ii) The record ~~((shall))~~ must include at least the following information:

(A) The date of measurement;

(B) The operation involving exposure to BD which is being monitored;

(C) Sampling and analytical methods used and evidence of their accuracy;

(D) Number, duration, and results of samples taken;

(E) Type of protective devices worn, if any;

(F) Name, Social Security number and exposure of the employees whose exposures are represented; and

(G) The written corrective action and the schedule for completion of this action required by subsection (4)(g)(ii) of this section.

(iii) The employer ~~((shall))~~ must maintain this record for at least 30 years in accordance with chapter 296-802 WAC.

(c) Medical screening and surveillance.

(i) The employer ~~((shall))~~ must establish and maintain an accurate record for each employee subject to medical screening and surveillance under this section.

(ii) The record ~~((shall))~~ must include at least the following information:

(A) The name and Social Security number of the employee;

(B) Physician's or other licensed health care professional's written opinions as described in subsection (11)(e) of this section;

(C) A copy of the information provided to the physician or other licensed health care professional as required by subsection (11)(e) of this section.

(iii) Medical screening and surveillance records ~~((shall))~~ must be maintained for each employee for the duration of employment plus 30 years, in accordance with chapter 296-802 WAC.

(d) Availability.

(i) The employer, upon written request, ~~((shall))~~ must make all records required to be maintained by this section available for examination and copying to the director.

(ii) Access to records required to be maintained by (a) and (b) of this subsection ~~((shall))~~ must be granted in accordance with chapter 296-802 WAC.

(e) Transfer of records. The employer shall transfer medical and exposure records as set forth in WAC 296-802-60005.

(14) ~~((Dates-~~

~~(a) Effective date. This section shall become effective (day, month), 1997.~~

~~(b)) Start-up dates.~~

~~((+)) (a) The initial monitoring required under subsection (4)(b) of this section ~~((shall))~~ must be completed immediately or within sixty days of the introduction of BD into the workplace.~~

~~((+)) (b) The requirements of subsections (3) through (13) of this section, including feasible work practice controls but not including engineering controls specified in subsection (6)(a) of this section, ~~((shall))~~ must be complied with immediately.~~

~~((iii) Engineering controls specified by subsection (6)(a) of this section shall be implemented by February 4, 1999, and the exposure goal program specified in subsection (7) of this section shall be implemented by February 4, 2000.)~~

(15) Appendices.

Appendices A, B, C, D, and F to this section are informational and are not intended to create any additional obligations not otherwise imposed or to detract from any existing obligations.

Appendix A. Substance Safety Data Sheet For 1,3-Butadiene (Non-Mandatory)

(1) Substance Identification.

(a) Substance: 1,3-Butadiene (CH<sub>2</sub>=CH-CH=CH<sub>2</sub>).

(b) Synonyms: 1,3-Butadiene (BD); butadiene; biethylene; bi-vinyl; divinyl; butadiene-1,3; buta-1,3-diene; erythrene; NCI-C50602; CAS-106-99-0.

(c) BD can be found as a gas or liquid.

(d) BD is used in production of styrene-butadiene rubber and polybutadiene rubber for the tire industry. Other uses include copolymer latexes for carpet backing and paper coating, as well as resins and polymers for pipes and automobile and appliance parts. It is also used as an intermediate in the production of such chemicals as fungicides.

(e) Appearance and odor: BD is a colorless, noncorrosive, flammable gas with a mild aromatic odor at standard ambient temperature and pressure.

(f) Permissible exposure: Exposure may not exceed 1 part BD per million parts of air averaged over the 8-hour workday, nor may short-term exposure exceed 5 parts of BD

per million parts of air averaged over any 15-minute period in the 8-hour workday.

(2) Health Hazard Data.

(a) BD can affect the body if the gas is inhaled or if the liquid form, which is very cold (cryogenic), comes in contact with the eyes or skin.

(b) Effects of overexposure: Breathing very high levels of BD for a short time can cause central nervous system effects, blurred vision, nausea, fatigue, headache, decreased blood pressure and pulse rate, and unconsciousness. There are no recorded cases of accidental exposures at high levels that have caused death in humans, but this could occur. Breathing lower levels of BD may cause irritation of the eyes, nose, and throat. Skin contact with liquefied BD can cause irritation and frostbite.

(c) Long-term (chronic) exposure: BD has been found to be a potent carcinogen in rodents, inducing neoplastic lesions at multiple target sites in mice and rats. A recent study of BD-exposed workers showed that exposed workers have an increased risk of developing leukemia. The risk of leukemia increases with increased exposure to BD. OSHA has concluded that there is strong evidence that workplace exposure to BD poses an increased risk of death from cancers of the lymphohematopoietic system.

(d) Reporting signs and symptoms: You should inform your supervisor if you develop any of these signs or symptoms and suspect that they are caused by exposure to BD.

(3) Emergency First-Aid Procedures.

In the event of an emergency, follow the emergency plan and procedures designated for your work area. If you have been trained in first-aid procedures, provide the necessary first aid measures. If necessary, call for additional assistance from co-workers and emergency medical personnel.

(a) Eye and Skin Exposures: If there is a potential that liquefied BD can come in contact with eye or skin, face shields and skin protective equipment must be provided and used. If liquefied BD comes in contact with the eye, immediately flush the eyes with large amounts of water, occasionally lifting the lower and the upper lids. Flush repeatedly. Get medical attention immediately. Contact lenses should not be worn when working with this chemical. In the event of skin contact, which can cause frostbite, remove any contaminated clothing and flush the affected area repeatedly with large amounts of tepid water.

(b) Breathing: If a person breathes in large amounts of BD, move the exposed person to fresh air at once. If breathing has stopped, begin cardiopulmonary resuscitation (CPR) if you have been trained in this procedure. Keep the affected person warm and at rest. Get medical attention immediately.

(c) Rescue: Move the affected person from the hazardous exposure. If the exposed person has been overcome, call for help and begin emergency rescue procedures. Use extreme caution so that you do not become a casualty. Understand the plant's emergency rescue procedures and know the locations of rescue equipment before the need arises.

(4) Respirators and Protective Clothing.

(a) Respirators: Good industrial hygiene practices recommend that engineering and work practice controls be used to reduce environmental concentrations to the permissible exposure level. However, there are some exceptions where

respirators may be used to control exposure. Respirators may be used when engineering and work practice controls are not technically feasible, when such controls are in the process of being installed, or when these controls fail and need to be supplemented or during brief, nonroutine, intermittent exposure. Respirators may also be used in situations involving nonroutine work operations which are performed infrequently and in which exposures are limited in duration, and in emergency situations. In some instances cartridge respirator use is allowed, but only with strict time constraints. For example, at exposure below 5 ppm BD, a cartridge (or canister) respirator, either full or half face, may be used, but the cartridge must be replaced at least every 4 hours, and it must be replaced every 3 hours when the exposure is between 5 and 10 ppm.

If the use of respirators is necessary, the only respirators permitted are those that have been approved by the National Institute for Occupational Safety and Health (NIOSH). In addition to respirator selection, a complete respiratory protection program must be instituted which includes regular training, maintenance, fit testing, inspection, cleaning, and evaluation of respirators. If you can smell BD while wearing a respirator, proceed immediately to fresh air, and change cartridge (or canister) before reentering an area where there is BD exposure. If you experience difficulty in breathing while wearing a respirator, tell your supervisor.

(b) Protective Clothing: Employees should be provided with and required to use impervious clothing, gloves, face shields (eight-inch minimum), and other appropriate protective clothing necessary to prevent the skin from becoming frozen by contact with liquefied BD (or a vessel containing liquid BD).

Employees should be provided with and required to use splash-proof safety goggles where liquefied BD may contact the eyes.

(5) Precautions for Safe Use, Handling, and Storage.

(a) Fire and Explosion Hazards: BD is a flammable gas and can easily form explosive mixtures in air. It has a lower explosive limit of 2%, and an upper explosive limit of 11.5%. It has an autoignition temperature of 420 deg. C (788 deg. F). Its vapor is heavier than air (vapor density, 1.9) and may travel a considerable distance to a source of ignition and flash back. Usually it contains inhibitors to prevent self-polymerization (which is accompanied by evolution of heat) and to prevent formation of explosive peroxides. At elevated temperatures, such as in fire conditions, polymerization may take place. If the polymerization takes place in a container, there is a possibility of violent rupture of the container.

(b) Hazard: Slightly toxic. Slight respiratory irritant. Direct contact of liquefied BD on skin may cause freeze burns and frostbite.

(c) Storage: Protect against physical damage to BD containers. Outside or detached storage of BD containers is preferred. Inside storage should be in a cool, dry, well-ventilated, noncombustible location, away from all possible sources of ignition. Store cylinders vertically and do not stack. Do not store with oxidizing material.

(d) Usual Shipping Containers: Liquefied BD is contained in steel pressure apparatus.

(e) **Electrical Equipment:** Electrical installations in Class I hazardous locations, as defined in Article 500 of the National Electrical Code, should be in accordance with Article 501 of the Code. If explosion-proof electrical equipment is necessary, it shall be suitable for use in Group B. Group D equipment may be used if such equipment is isolated in accordance with Section 501-5(a) by sealing all conduit 1/2-inch size or larger. See Venting of Deflagrations (NFPA No. 68, 1994), National Electrical Code (NFPA No. 70, 1996), Static Electricity (NFPA No. 77, 1993), Lightning Protection Systems (NFPA No. 780, 1995), and Fire Hazard Properties of Flammable Liquids, Gases and Volatile Solids (NFPA No. 325, 1994).

(f) **Fire Fighting:** Stop flow of gas. Use water to keep fire-exposed containers cool. Fire extinguishers and quick drenching facilities must be readily available, and you should know where they are and how to operate them.

(g) **Spill and Leak:** Persons not wearing protective equipment and clothing should be restricted from areas of spills or leaks until clean-up has been completed. If BD is spilled or leaked, the following steps should be taken:

(i) Eliminate all ignition sources.

(ii) Ventilate area of spill or leak.

(iii) If in liquid form, for small quantities, allow to evaporate in a safe manner.

(iv) Stop or control the leak if this can be done without risk. If source of leak is a cylinder and the leak cannot be stopped in place, remove the leaking cylinder to a safe place and repair the leak or allow the cylinder to empty.

(h) **Disposal:** This substance, when discarded or disposed of, is a hazardous waste according to Federal regulations (40 C.F.R. part 261). It is listed as hazardous waste number D001 due to its ignitability. The transportation, storage, treatment, and disposal of this waste material must be conducted in compliance with 40 C.F.R. parts 262, 263, 264, 268 and 270. Disposal can occur only in properly permitted facilities. Check state and local regulation of any additional requirements as these may be more restrictive than federal laws and regulation.

(i) You should not keep food, beverages, or smoking materials in areas where there is BD exposure, nor should you eat or drink in such areas.

(j) Ask your supervisor where BD is used in your work area and ask for any additional plant safety and health rules.

(6) **Medical Requirements.**

Your employer is required to offer you the opportunity to participate in a medical screening and surveillance program if you are exposed to BD at concentrations exceeding the action level (0.5 ppm BD as an 8-hour TWA) on 30 days or more a year, or at or above the 8-hr TWA (1 ppm) or STEL (5 ppm for 15 minutes) on 10 days or more a year. Exposure for any part of a day counts. If you have had exposure to BD in the past, but have been transferred to another job, you may still be eligible to participate in the medical screening and surveillance program.

The WISHA rule specifies the past exposures that would qualify you for participation in the program. These past exposure are work histories that suggest the following:

(a) That you have been exposed at or above the PELs on 30 days a year for 10 or more years;

(b) That you have been exposed at or above the action level on 60 days a year for 10 or more years; or

(c) That you have been exposed above 10 ppm on 30 days in any past year.

Additionally, if you are exposed to BD in an emergency situation, you are eligible for a medical examination within 48 hours. The basic medical screening program includes a health questionnaire, physical examination, and blood test. These medical evaluations must be offered to you at a reasonable time and place, and without cost or loss of pay.

(7) **Observation of Monitoring.**

Your employer is required to perform measurements that are representative of your exposure to BD and you or your designated representative are entitled to observe the monitoring procedure. You are entitled to observe the steps taken in the measurement procedure, and to record the results obtained. When the monitoring procedure is taking place in an area where respirators or personal protective clothing and equipment are required to be worn, you or your representative must also be provided with, and must wear, the protective clothing and equipment.

(8) **Access to Information.**

(a) Each year, your employer is required to inform you of the information contained in this appendix. In addition, your employer must instruct you in the proper work practices for using BD, emergency procedures, and the correct use of protective equipment.

(b) Your employer is required to determine whether you are being exposed to BD. You or your representative has the right to observe employee measurements and to record the results obtained. Your employer is required to inform you of your exposure. If your employer determines that you are being overexposed, he or she is required to inform you of the actions which are being taken to reduce your exposure to within permissible exposure limits and of the schedule to implement these actions.

(c) Your employer is required to keep records of your exposures and medical examinations. These records must be kept by the employer for at least thirty years.

(d) Your employer is required to release your exposure and medical records to you or your representative upon your request.

Appendix B. Substance Technical Guidelines for 1,3-Butadiene (Non-Mandatory)

(1) **Physical and Chemical Data.**

(a) **Substance identification:**

(i) **Synonyms:** 1,3-Butadiene (BD); butadiene; biethylene; bivinyll; divinyl; butadiene-1,3; buta-1,3-diene; erythrene; NCI-C50620; CAS-106-99-0.

(ii) **Formula:** (CH<sub>2</sub>)=CH-CH=CH(2)).

(iii) **Molecular weight:** 54.1.

(b) **Physical data:**

(i) **Boiling point (760 mm Hg):** -4.7 deg. C (23.5 deg. F).

(ii) **Specific gravity (water = 1):** 0.62 at 20 deg. C (68 deg. F).

(iii) **Vapor density (air = 1 at boiling point of BD):** 1.87.

(iv) **Vapor pressure at 20 deg. C (68 deg. F):** 910 mm Hg.

(v) **Solubility in water, g/100 g water at 20 deg. C (68 deg. F):** 0.05.

(vi) Appearance and odor: Colorless, flammable gas with a mildly aromatic odor. Liquefied BD is a colorless liquid with a mildly aromatic odor.

(2) Fire, Explosion, and Reactivity Hazard Data.

(a) Fire:

(i) Flash point: -76 deg. C (-105 deg. F) for take out; liquefied BD; Not applicable to BD gas.

(ii) Stability: A stabilizer is added to the monomer to inhibit formation of polymer during storage. Forms explosive peroxides in air in absence of inhibitor.

(iii) Flammable limits in air, percent by volume: Lower: 2.0; Upper: 11.5.

(iv) Extinguishing media: Carbon dioxide for small fires, polymer or alcohol foams for large fires.

(v) Special fire fighting procedures: Fight fire from protected location or maximum possible distance. Stop flow of gas before extinguishing fire. Use water spray to keep fire-exposed cylinders cool.

(vi) Unusual fire and explosion hazards: BD vapors are heavier than air and may travel to a source of ignition and flash back. Closed containers may rupture violently when heated.

(vii) For purposes of compliance with the requirements of WAC 296-24-330, BD is classified as a flammable gas. For example, 7,500 ppm, approximately one-fourth of the lower flammable limit, would be considered to pose a potential fire and explosion hazard.

(viii) For purposes of compliance with WAC 296-24-585, BD is classified as a Class B fire hazard.

(ix) For purposes of compliance with WAC 296-24-956 and 296-800-280, locations classified as hazardous due to the presence of BD shall be Class I.

(b) Reactivity:

(i) Conditions contributing to instability: Heat. Peroxides are formed when inhibitor concentration is not maintained at proper level. At elevated temperatures, such as in fire conditions, polymerization may take place.

(ii) Incompatibilities: Contact with strong oxidizing agents may cause fires and explosions. The contacting of crude BD (not BD monomer) with copper and copper alloys may cause formations of explosive copper compounds.

(iii) Hazardous decomposition products: Toxic gases (such as carbon monoxide) may be released in a fire involving BD.

(iv) Special precautions: BD will attack some forms of plastics, rubber, and coatings. BD in storage should be checked for proper inhibitor content, for self-polymerization, and for formation of peroxides when in contact with air and iron. Piping carrying BD may become plugged by formation of rubbery polymer.

(c) Warning Properties:

(i) Odor Threshold: An odor threshold of 0.45 ppm has been reported in The American Industrial Hygiene Association (AIHA) Report, Odor Thresholds for Chemicals with Established Occupational Health Standards. (Ex. 32-28C).

(ii) Eye Irritation Level: Workers exposed to vapors of BD (concentration or purity unspecified) have complained of irritation of eyes, nasal passages, throat, and lungs. Dogs and rabbits exposed experimentally to as much as 6700 ppm for 7

1/2 hours a day for 8 months have developed no histologically demonstrable abnormality of the eyes.

(ii) Evaluation of Warning Properties: Since the mean odor threshold is about half of the 1 ppm PEL, and more than 10-fold below the 5 ppm STEL, most wearers of air purifying respirators should still be able to detect breakthrough before a significant overexposure to BD occurs.

(3) Spill, Leak, and Disposal Procedures.

(a) Persons not wearing protective equipment and clothing should be restricted from areas of spills or leaks until cleanup has been completed. If BD is spilled or leaked, the following steps should be taken:

(i) Eliminate all ignition sources.

(ii) Ventilate areas of spill or leak.

(iii) If in liquid form, for small quantities, allow to evaporate in a safe manner.

(iv) Stop or control the leak if this can be done without risk. If source of leak is a cylinder and the leak cannot be stopped in place, remove the leaking cylinder to a safe place and repair the leak or allow the cylinder to empty.

(b) Disposal: This substance, when discarded or disposed of, is a hazardous waste according to Federal regulations (40 C.F.R. part 261). It is listed by the EPA as hazardous waste number D001 due to its ignitability. The transportation, storage, treatment, and disposal of this waste material must be conducted in compliance with 40 C.F.R. parts 262, 263, 264, 268 and 270. Disposal can occur only in properly permitted facilities. Check state and local regulations for any additional requirements because these may be more restrictive than federal laws and regulations.

(4) Monitoring and Measurement Procedures.

(a) Exposure above the Permissible Exposure Limit (8-hr TWA) or Short-Term Exposure Limit (STEL):

(i) 8-hr TWA exposure evaluation: Measurements taken for the purpose of determining employee exposure under this standard are best taken with consecutive samples covering the full shift. Air samples must be taken in the employee's breathing zone (air that would most nearly represent that inhaled by the employee).

(ii) STEL exposure evaluation: Measurements must represent 15 minute exposures associated with operations most likely to exceed the STEL in each job and on each shift.

(iii) Monitoring frequencies: Table 1 gives various exposure scenarios and their required monitoring frequencies, as required by the final standard for occupational exposure to butadiene.

Table 1. — Five Exposure Scenarios and Their Associated Monitoring Frequencies

Action Level	8-hr TWA	STEL	Required Monitoring Activity
*	—	—	No 8-hour TWA or STEL monitoring required.
+	—	—	No STEL monitoring required. Monitor 8-hr TWA annually.

Action Level	8-hr TWA	STEL	Required Monitoring Activity
+	—	—	No STEL monitoring required. Periodic monitoring 8-hour TWA, in accordance with (4)(c)(iii).**
+	+	+	Periodic monitoring 8-hour TWA, in accordance with (4)(c)(iii)**. Periodic monitoring STEL in accordance with (4)(c)(iii).
+	—	+	Periodic monitoring STEL, in accordance with (4)(c)(iii). Monitor 8-hour TWA annually.

Footnote (\*) Exposure Scenario, Limit Exceeded: + = Yes, - = No.  
 Footnote (\*\*) The employer may decrease the frequency of exposure monitoring to annually when at least 2 consecutive measurements taken at least 7 days apart show exposures to be below the 8-hour TWA, but at or above the action level.

(iv) Monitoring techniques: Appendix D describes the validated method of sampling and analysis which has been tested by OSHA for use with BD. The employer has the obligation of selecting a monitoring method which meets the accuracy and precision requirements of the standard under his or her unique field conditions. The standard requires that the method of monitoring must be accurate, to a 95 percent confidence level, to plus or minus 25 percent for concentrations of BD at or above 1 ppm, and to plus or minus 35 percent for concentrations below 1 ppm.

(5) Personal Protective Equipment.

(a) Employees should be provided with and required to use impervious clothing, gloves, face shields (eight-inch minimum), and other appropriate protective clothing necessary to prevent the skin from becoming frozen from contact with liquid BD.

(b) Any clothing which becomes wet with liquid BD should be removed immediately and not reworn until the butadiene has evaporated.

(c) Employees should be provided with and required to use splash proof safety goggles where liquid BD may contact the eyes.

(6) Housekeeping and Hygiene Facilities.

For purposes of complying with WAC 296-800-220 and 296-800-230, the following items should be emphasized:

(a) The workplace should be kept clean, orderly, and in a sanitary condition.

(b) Adequate washing facilities with hot and cold water are to be provided and maintained in a sanitary condition.

(7) Additional Precautions.

(a) Store BD in tightly closed containers in a cool, well-ventilated area and take all necessary precautions to avoid any explosion hazard.

(b) Nonsparking tools must be used to open and close metal containers. These containers must be effectively grounded.

(c) Do not incinerate BD cartridges, tanks or other containers.

(d) Employers must advise employees of all areas and operations where exposure to BD might occur.

Appendix C. Medical Screening and Surveillance for 1,3-Butadiene (Nonmandatory)

(1) Basis for Medical Screening and Surveillance Requirements.

(a) Route of Entry Inhalation.

(b) Toxicology.

Inhalation of BD has been linked to an increased risk of cancer, damage to the reproductive organs, and fetotoxicity. Butadiene can be converted via oxidation to epoxybutene and diepoxybutane, two genotoxic metabolites that may play a role in the expression of BD's toxic effects. BD has been tested for carcinogenicity in mice and rats. Both species responded to BD exposure by developing cancer at multiple primary organ sites. Early deaths in mice were caused by malignant lymphomas, primarily lymphocytic type, originating in the thymus.

Mice exposed to BD have developed ovarian or testicular atrophy. Sperm head morphology tests also revealed abnormal sperm in mice exposed to BD; lethal mutations were found in a dominant lethal test. In light of these results in animals, the possibility that BD may adversely affect the reproductive systems of male and female workers must be considered.

Additionally, anemia has been observed in animals exposed to butadiene. In some cases, this anemia appeared to be a primary response to exposure; in other cases, it may have been secondary to a neoplastic response.

(c) Epidemiology.

Epidemiologic evidence demonstrates that BD exposure poses an increased risk of leukemia. Mild alterations of hematologic parameters have also been observed in synthetic rubber workers exposed to BD.

(2) Potential Adverse Health Effects.

(a) Acute.

Skin contact with liquid BD causes characteristic burns or frostbite. BD in gaseous form can irritate the eyes, nasal passages, throat, and lungs. Blurred vision, coughing, and drowsiness may also occur. Effects are mild at 2,000 ppm and pronounced at 8,000 ppm for exposures occurring over the full workshift.

At very high concentrations in air, BD is an anesthetic, causing narcosis, respiratory paralysis, unconsciousness, and death. Such concentrations are unlikely, however, except in an extreme emergency because BD poses an explosion hazard at these levels.

(b) Chronic.

The principal adverse health effects of concern are BD-induced lymphoma, leukemia and potential reproductive toxicity. Anemia and other changes in the peripheral blood cells may be indicators of excessive exposure to BD.

(c) Reproductive.

Workers may be concerned about the possibility that their BD exposure may be affecting their ability to procreate a healthy child. For workers with high exposures to BD, especially those who have experienced difficulties in conceiving, miscarriages, or stillbirths, appropriate medical and labora-

tory evaluation of fertility may be necessary to determine if BD is having any adverse effect on the reproductive system or on the health of the fetus.

(3) Medical Screening Components At-A-Glance.

(a) Health Questionnaire.

The most important goal of the health questionnaire is to elicit information from the worker regarding potential signs or symptoms generally related to leukemia or other blood abnormalities. Therefore, physicians or other licensed health care professionals should be aware of the presenting symptoms and signs of lymphohematopoietic disorders and cancers, as well as the procedures necessary to confirm or exclude such diagnoses. Additionally, the health questionnaire will assist with the identification of workers at greatest risk of developing leukemia or adverse reproductive effects from their exposures to BD.

Workers with a history of reproductive difficulties or a personal or family history of immune deficiency syndromes, blood dyscrasias, lymphoma, or leukemia, and those who are or have been exposed to medicinal drugs or chemicals known to affect the hematopoietic or lymphatic systems may be at higher risk from their exposure to BD. After the initial administration, the health questionnaire must be updated annually.

(b) Complete Blood Count (CBC).

The medical screening and surveillance program requires an annual CBC, with differential and platelet count, to be provided for each employee with BD exposure. This test is to be performed on a blood sample obtained by phlebotomy of the venous system or, if technically feasible, from a fingerstick sample of capillary blood. The sample is to be analyzed by an accredited laboratory.

Abnormalities in a CBC may be due to a number of different etiologies. The concern for workers exposed to BD includes, but is not limited to, timely identification of lymphohematopoietic cancers, such as leukemia and non-Hodgkin's lymphoma. Abnormalities of portions of the CBC are identified by comparing an individual's results to those of an established range of normal values for males and females. A substantial change in any individual employee's CBC may also be viewed as "abnormal" for that individual even if all measurements fall within the population-based range of normal values. It is suggested that a flowsheet for laboratory values be included in each employee's medical record so that comparisons and trends in annual CBCs can be easily made.

A determination of the clinical significance of an abnormal CBC shall be the responsibility of the examining physician, other licensed health care professional, or medical specialist to whom the employee is referred. Ideally, an abnormal CBC should be compared to previous CBC measurements for the same employee, when available. Clinical common sense may dictate that a CBC value that is very slightly outside the normal range does not warrant medical concern. A CBC abnormality may also be the result of a temporary physical stressor, such as a transient viral illness, blood donation, or menorrhagia, or laboratory error. In these cases, the CBC should be repeated in a timely fashion, i.e., within 6 weeks, to verify that return to the normal range has occurred. A clinically significant abnormal CBC should result in removal of the employee from further exposure to

BD. Transfer of the employee to other work duties in a BD-free environment would be the preferred recommendation.

(c) Physical Examination.

The medical screening and surveillance program requires an initial physical examination for workers exposed to BD; this examination is repeated once every three years. The initial physical examination should assess each worker's baseline general health and rule out clinical signs of medical conditions that may be caused by or aggravated by occupational BD exposure. The physical examination should be directed at identification of signs of lymphohematopoietic disorders, including lymph node enlargement, splenomegaly, and hepatomegaly.

Repeated physical examinations should update objective clinical findings that could be indicative of interim development of a lymphohematopoietic disorder, such as lymphoma, leukemia, or other blood abnormality. Physical examinations may also be provided on an as needed basis in order to follow up on a positive answer on the health questionnaire, or in response to an abnormal CBC. Physical examination of workers who will no longer be working in jobs with BD exposure are intended to rule out lymphohematopoietic disorders.

The need for physical examinations for workers concerned about adverse reproductive effects from their exposure to BD should be identified by the physician or other licensed health care professional and provided accordingly. For these workers, such consultations and examinations may relate to developmental toxicity and reproductive capacity.

Physical examination of workers acutely exposed to significant levels of BD should be especially directed at the respiratory system, eyes, sinuses, skin, nervous system, and any region associated with particular complaints. If the worker has received a severe acute exposure, hospitalization may be required to assure proper medical management. Since this type of exposure may place workers at greater risk of blood abnormalities, a CBC must be obtained within 48 hours and repeated at one, two, and three months.

Appendix D: Sampling and Analytical Method for 1,3-Butadiene (Nonmandatory)

OSHA Method No.: 56.

Matrix: Air.

Target concentration: 1 ppm (2.21 mg/m(3)).

Procedure: Air samples are collected by drawing known volumes of air through sampling tubes containing charcoal adsorbent which has been coated with 4-tert-butylcatechol. The samples are desorbed with carbon disulfide and then analyzed by gas chromatography using a flame ionization detector.

Recommended sampling rate and air volume: 0.05 L/min and 3 L.

Detection limit of the overall procedure: 90 ppb (200 ug/m(3)) (based on 3 L air volume).

Reliable quantitation limit: 155 ppb (343 ug/m(3)) (based on 3 L air volume).

Standard error of estimate at the target concentration: 6.5%.

Special requirements: The sampling tubes must be coated with 4-tert-butylcatechol. Collected samples should be stored in a freezer.

Status of method: A sampling and analytical method has been subjected to the established evaluation procedures of the Organic Methods Evaluation Branch, OSHA Analytical Laboratory, Salt Lake City, Utah 84165.

(1) Background.

This work was undertaken to develop a sampling and analytical procedure for BD at 1 ppm. The current method recommended by OSHA for collecting BD uses activated coconut shell charcoal as the sampling medium (Ref. 5.2). This method was found to be inadequate for use at low BD levels because of sample instability.

The stability of samples has been significantly improved through the use of a specially cleaned charcoal which is coated with 4-tert-butylcatechol (TBC). TBC is a polymerization inhibitor for BD (Ref. 5.3).

(a) Toxic effects.

Symptoms of human exposure to BD include irritation of the eyes, nose and throat. It can also cause coughing, drowsiness and fatigue. Dermatitis and frostbite can result from skin exposure to liquid BD. (Ref. 5.1)

NIOSH recommends that BD be handled in the workplace as a potential occupational carcinogen. This recommendation is based on two inhalation studies that resulted in cancers at multiple sites in rats and in mice. BD has also demonstrated mutagenic activity in the presence of a liver microsomal activating system. It has also been reported to have adverse reproductive effects. (Ref. 5.1)

(b) Potential workplace exposure.

About 90% of the annual production of BD is used to manufacture styrene-butadiene rubber and Polybutadiene rubber. Other uses include: Polychloroprene rubber, acrylonitrile butadiene-styrene resins, nylon intermediates, styrene-butadiene latexes, butadiene polymers, thermoplastic elastomers, nitrile resins, methyl methacrylate-butadiene styrene resins and chemical intermediates. (Ref. 5.1)

(c) Physical properties (Ref. 5.1).

CAS No.: 106-99-0

Molecular weight: 54.1

Appearance: Colorless gas

Boiling point: -4.41 deg. C (760 mm Hg)

Freezing point: -108.9 deg. C

Vapor pressure: 2 atm (a) 15.3 deg. C; 5 atm (a) 47 deg. C

Explosive limits: 2 to 11.5% (by volume in air)

Odor threshold: 0.45 ppm

Structural formula: H(2)C:CHCH:CH(2)

Synonyms: BD; biethylene; bivinyll; butadiene; divinyl; buta-1,3-diene; alpha-gamma-butadiene; erythrene; NCI-C50602; pyrrolylene; vinylethylene.

(d) Limit defining parameters.

The analyte air concentrations listed throughout this method are based on an air volume of 3 L and a desorption volume of 1 mL. Air concentrations listed in ppm are referenced to 25 deg. C and 760 mm Hg.

(e) Detection limit of the analytical procedure.

The detection limit of the analytical procedure was 304 pg per injection. This was the amount of BD which gave a response relative to the interferences present in a standard.

(f) Detection limit of the overall procedure.

The detection limit of the overall procedure was 0.60 ug per sample (90 ppb or 200 ug/m(3)). This amount was determined graphically. It was the amount of analyte which, when spiked on the sampling device, would allow recovery approximately equal to the detection limit of the analytical procedure.

(g) Reliable quantitation limit.

The reliable quantitation limit was 1.03 ug per sample (155 ppb or 343 ug/m(3)). This was the smallest amount of analyte which could be quantitated within the limits of a recovery of at least 75% and a precision (+/- 1.96 SD) of +/- 25% or better.

(h) Sensitivity.(1)

Footnote (1) The reliable quantitation limit and detection limits reported in the method are based upon optimization of the instrument for the smallest possible amount of analyte. When the target concentration of an analyte is exceptionally higher than these limits, they may not be attainable at the routine operation parameters.

The sensitivity of the analytical procedure over a concentration range representing 0.6 to 2 times the target concentration, based on the recommended air volume, was 387 area units per ug/mL. This value was determined from the slope of the calibration curve. The sensitivity may vary with the particular instrument used in the analysis.

(i) Recovery.

The recovery of BD from samples used in storage tests remained above 77% when the samples were stored at ambient temperature and above 94% when the samples were stored at refrigerated temperature. These values were determined from regression lines which were calculated from the storage data. The recovery of the analyte from the collection device must be at least 75% following storage.

(j) Precision (analytical method only).

The pooled coefficient of variation obtained from replicate determinations of analytical standards over the range of 0.6 to 2 times the target concentration was 0.011.

(k) Precision (overall procedure).

The precision at the 95% confidence level for the refrigerated temperature storage test was +/- 12.7%. This value includes an additional +/- 5% for sampling error. The overall procedure must provide results at the target concentrations that are +/- 25% at the 95% confidence level.

(l) Reproducibility.

Samples collected from a controlled test atmosphere and a draft copy of this procedure were given to a chemist unassociated with this evaluation. The average recovery was 97.2% and the standard deviation was 6.2%.

(2) Sampling procedure.

(a) Apparatus. Samples are collected by use of a personal sampling pump that can be calibrated to within +/- 5% of the recommended 0.05 L/min sampling rate with the sampling tube in line.

(b) Samples are collected with laboratory prepared sampling tubes. The sampling tube is constructed of silane-treated glass and is about 5-cm long. The ID is 4 mm and the OD is 6 mm. One end of the tube is tapered so that a glass wool end plug will hold the contents of the tube in place during sampling. The opening in the tapered end of the sam-

pling tube is at least one-half the ID of the tube (2 mm). The other end of the sampling tube is open to its full 4-mm ID to facilitate packing of the tube. Both ends of the tube are fire-polished for safety. The tube is packed with 2 sections of pre-treated charcoal which has been coated with TBC. The tube is packed with a 50-mg backup section, located nearest the tapered end, and with a 100-mg sampling section of charcoal. The two sections of coated adsorbent are separated and retained with small plugs of silanized glass wool. Following packing, the sampling tubes are sealed with two 7/32 inch OD plastic end caps. Instructions for the pretreatment and coating of the charcoal are presented in Section 4.1 of this method.

(c) Reagents.

None required.

(d) Technique.

(i) Properly label the sampling tube before sampling and then remove the plastic end caps.

(ii) Attach the sampling tube to the pump using a section of flexible plastic tubing such that the larger front section of the sampling tube is exposed directly to the atmosphere. Do not place any tubing ahead of the sampling tube. The sampling tube should be attached in the worker's breathing zone in a vertical manner such that it does not impede work performance.

(iii) After sampling for the appropriate time, remove the sampling tube from the pump and then seal the tube with plastic end caps. Wrap the tube lengthwise.

(iv) Include at least one blank for each sampling set. The blank should be handled in the same manner as the samples with the exception that air is not drawn through it.

(v) List any potential interferences on the sample data sheet.

(vi) The samples require no special shipping precautions under normal conditions. The samples should be refrigerated if they are to be exposed to higher than normal ambient temperatures. If the samples are to be stored before they are shipped to the laboratory, they should be kept in a freezer. The samples should be placed in a freezer upon receipt at the laboratory.

(e) Breakthrough.

(Breakthrough was defined as the relative amount of analyte found on the backup section of the tube in relation to the total amount of analyte collected on the sampling tube. Five-percent breakthrough occurred after sampling a test atmosphere containing 2.0 ppm BD for 90 min. at 0.05 L/min. At the end of this time 4.5 L of air had been sampled and 20.1 ug of the analyte was collected. The relative humidity of the sampled air was 80% at 23 deg. C.)

Breakthrough studies have shown that the recommended sampling procedure can be used at air concentrations higher than the target concentration. The sampling time, however, should be reduced to 45 min. if both the expected BD level and the relative humidity of the sampled air are high.

(f) Desorption efficiency.

The average desorption efficiency for BD from TBC coated charcoal over the range from 0.6 to 2 times the target concentration was 96.4%. The efficiency was essentially constant over the range studied.

(g) Recommended air volume and sampling rate.

(h) The recommended air volume is 3 L.

(i) The recommended sampling rate is 0.05 L/min. for 1 hour.

(j) Interferences.

There are no known interferences to the sampling method.

(k) Safety precautions.

(i) Attach the sampling equipment to the worker in such a manner that it will not interfere with work performance or safety.

(ii) Follow all safety practices that apply to the work area being sampled.

(3) Analytical procedure.

(a) Apparatus.

(i) A gas chromatograph (GC), equipped with a flame ionization detector (FID).(2)

Footnote (2) A Hewlett-Packard Model 5840A GC was used for this evaluation. Injections were performed using a Hewlett-Packard Model 7671A automatic sampler.

(ii) A GC column capable of resolving the analytes from any interference.(3)

Footnote (3) A 20-ft x 1/8-inch OD stainless steel GC column containing 20% FFAP on 80/100 mesh Chromabsorb W-AW-DMCS was used for this evaluation.

(ii) Vials, glass 2-mL with Teflon-lined caps.

(iv) Disposable Pasteur-type pipets, volumetric flasks, pipets and syringes for preparing samples and standards, making dilutions and performing injections.

(b) Reagents.

(i) Carbon disulfide.(4)

Footnote (4) Fisher Scientific Company A.C.S. Reagent Grade solvent was used in this evaluation.

The benzene contaminant that was present in the carbon disulfide was used as an internal standard (ISTD) in this evaluation.

(ii) Nitrogen, hydrogen and air, GC grade.

(iii) BD of known high purity.(5)

Footnote (5) Matheson Gas Products, CP Grade 1,3-butadiene was used in this study.

(c) Standard preparation.

(i) Prepare standards by diluting known volumes of BD gas with carbon disulfide. This can be accomplished by injecting the appropriate volume of BD into the headspace above the 1-mL of carbon disulfide contained in sealed 2-mL vial. Shake the vial after the needle is removed from the septum.(6)

Footnote (6) A standard containing 7.71 ug/mL (at ambient temperature and pressure) was prepared by diluting 4 uL of the gas with 1-mL of carbon disulfide.

(ii) The mass of BD gas used to prepare standards can be determined by use of the following equations:

$$MV = (760/BP)(273+t)/(273)(22.41)$$

Where:

MV = ambient molar volume

BP = ambient barometric pressure

T = ambient temperature

ug/uL = 54.09/MV

$\text{ug/standard} = (\text{ug/uL})(\text{uL})$  BD used to prepare the standard

(d) Sample preparation.

(i) Transfer the 100-mg section of the sampling tube to a 2-mL vial. Place the 50-mg section in a separate vial. If the glass wool plugs contain a significant amount of charcoal, place them with the appropriate sampling tube section.

(ii) Add 1-mL of carbon disulfide to each vial.

(iii) Seal the vials with Teflon-lined caps and then allow them to desorb for one hour. Shake the vials by hand vigorously several times during the desorption period.

(iv) If it is not possible to analyze the samples within 4 hours, separate the carbon disulfide from the charcoal, using a disposable Pasteur-type pipet, following the one hour. This separation will improve the stability of desorbed samples.

(v) Save the used sampling tubes to be cleaned and repacked with fresh adsorbent.

(e) Analysis.

(i) GC Conditions.

Column temperature: 95 deg. C

Injector temperature: 180 deg. C

Detector temperature: 275 deg. C

Carrier gas flow rate: 30 mL/min.

Injection volume: 0.80 uL

GC column: 20-ft x 1/8-in OD stainless steel GC column containing 20%

FFAP on 80/100 Chromabsorb W-AW-DMCS.

(ii) Chromatogram. See Section 4.2.

(iii) Use a suitable method, such as electronic or peak heights, to measure detector response.

(iv) Prepare a calibration curve using several standard solutions of different concentrations. Prepare the calibration curve daily. Program the integrator to report the results in ug/mL.

(v) Bracket sample concentrations with standards.

(f) Interferences (analytical).

(i) Any compound with the same general retention time as the analyte and which also gives a detector response is a potential interference. Possible interferences should be reported by the industrial hygienist to the laboratory with submitted samples.

(ii) GC parameters (temperature, column, etc.) may be changed to circumvent interferences.

(iii) A useful means of structure designation is GC/MS. It is recommended that this procedure be used to confirm samples whenever possible.

(g) Calculations.

(i) Results are obtained by use of calibration curves. Calibration curves are prepared by plotting detector response against concentration for each standard. The best line through the data points is determined by curve fitting.

(ii) The concentration, in ug/mL, for a particular sample is determined by comparing its detector response to the calibration curve. If any analyte is found on the backup section, this amount is added to the amount found on the front section. Blank corrections should be performed before adding the results together.

(iii) The BD air concentration can be expressed using the following equation:

$$\text{mg/m}^3 = (\text{A})(\text{B})/(\text{C})(\text{D})$$

Where:

A = ug/mL from Section 3.7.2

B = volume

C = L of air sampled

D = efficiency

(iv) The following equation can be used to convert results in mg/m<sup>3</sup> to ppm:

$$\text{ppm} = (\text{mg/m}^3)(24.46)/54.09$$

Where:

mg/m<sup>3</sup> = result from Section 3.7.3.

24.46 = molar volume of an ideal gas at 760 mm Hg and 25 deg. C.

(h) Safety precautions (analytical).

(i) Avoid skin contact and inhalation of all chemicals.

(ii) Restrict the use of all chemicals to a fume hood whenever possible.

(iii) Wear safety glasses and a lab coat in all laboratory areas.

(4) Additional Information.

(a) A procedure to prepare specially cleaned charcoal coated with TBC.

(i) Apparatus.

(A) Magnetic stirrer and stir bar.

(B) Tube furnace capable of maintaining a temperature of 700 deg. C and equipped with a quartz tube that can hold 30 g of charcoal.(8)

Footnote (8) A Lindberg Type 55035 Tube furnace was used in this evaluation.

(C) A means to purge nitrogen gas through the charcoal inside the quartz tube.

(D) Water bath capable of maintaining a temperature of 60 deg. C.

(E) Miscellaneous laboratory equipment: One-liter vacuum flask, 1-L Erlenmeyer flask, 350-M1 Buchner funnel with a coarse fitted disc, 4-oz brown bottle, rubber stopper, Teflon tape etc.

(ii) Reagents.

(A) Phosphoric acid, 10% by weight, in water.(9)

Footnote (9) Baker Analyzed Reagent grade was diluted with water for use in this evaluation.

(B) 4-tert-Butylcatechol (TBC).(10)

Footnote (10) The Aldrich Chemical Company 99% grade was used in this evaluation.

(C) Specially cleaned coconut shell charcoal, 20/40 mesh.(11)

Footnote (11) Specially cleaned charcoal was obtained from Supelco, Inc. for use in this evaluation. The cleaning process used by Supelco is proprietary.

(D) Nitrogen gas, GC grade.

(iii) Procedure.

Weigh 30g of charcoal into a 500-mL Erlenmeyer flask. Add about 250 mL of 10% phosphoric acid to the flask and then swirl the mixture. Stir the mixture for 1 hour using a

magnetic stirrer. Filter the mixture using a fitted Buchner funnel. Wash the charcoal several times with 250-mL portions of deionized water to remove all traces of the acid. Transfer the washed charcoal to the tube furnace quartz tube. Place the quartz tube in the furnace and then connect the nitrogen gas purge to the tube. Fire the charcoal to 700 deg. C. Maintain that temperature for at least 1 hour. After the charcoal has cooled to room temperature, transfer it to a tared beaker. Determine the weight of the charcoal and then add an amount of TBC which is 10% of the charcoal, by weight.

CAUTION-TBC is toxic and should only be handled in a fume hood while wearing gloves.

Carefully mix the contents of the beaker and then transfer the mixture to a 4-oz bottle. Stopper the bottle with a clean rubber stopper which has been wrapped with Teflon tape. Clamp the bottle in a water bath so that the water level is above the charcoal level. Gently heat the bath to 60 deg. C and then maintain that temperature for 1 hour. Cool the charcoal to room temperature and then transfer the coated charcoal to a suitable container.

The coated charcoal is now ready to be packed into sampling tubes. The sampling tubes should be stored in a sealed container to prevent contamination. Sampling tubes should be stored in the dark at room temperature. The sampling tubes should be segregated by coated adsorbent lot number.

(b) Chromatograms.

The chromatograms were obtained using the recommended analytical method. The chart speed was set at 1 cm/min. for the first three min. and then at 0.2 cm/min. for the time remaining in the analysis.

The peak which elutes just before BD is a reaction product between an impurity on the charcoal and TBC. This peak is always present, but it is easily resolved from the analyte. The peak which elutes immediately before benzene is an oxidation product of TBC.

(5) References.

(a) "Current Intelligence Bulletin 41, 1,3-Butadiene," U.S. Dept. of Health and Human Services, Public Health Service, Center for Disease Control, NIOSH.

(b) "NIOSH Manual of Analytical Methods," 2nd ed.; U.S. Dept. of Health Education and Welfare, National Institute for Occupational Safety and Health: Cincinnati, OH. 1977, Vol. 2, Method No. S91 DHEW (NIOSH) Publ. (U.S.), No. 77-157-B.

(c) Hawley, G.C., Ed. "The Condensed Chemical Dictionary," 8th ed.; Van Nostrand Rienhold Company: New York, 1971; 139.5.4. Chem. Eng. News (June 10, 1985), (63), 22-66.

Appendix E: Reserved.

APPENDIX F, MEDICAL QUESTIONNAIRES, (Non-mandatory)

1,3-Butadiene (BD) Initial Health Questionnaire

DIRECTIONS:

You have been asked to answer the questions on this form because you work with BD (butadiene). These questions are about your work, medical history, and health concerns. Please do your best to answer all of the questions. If you need

help, please tell the doctor or health care professional who reviews this form.

This form is a confidential medical record. Only information directly related to your health and safety on the job may be given to your employer. Personal health information will not be given to anyone without your consent.

Date: \_\_\_\_\_  
Name: \_\_\_\_\_ SSN \_\_\_/\_\_\_/\_\_\_  
Last First MI

Job Title: \_\_\_\_\_  
Company's Name: \_\_\_\_\_  
Supervisor's Name: \_\_\_\_\_  
Supervisor's Phone No.: ( ) \_\_\_ - \_\_\_\_\_

Work History

1. Please list all jobs you have had in the past, starting with the job you have now and moving back in time to your first job. (For more space, write on the back of this page.)

Main Job Duty  
Year  
Company Name  
City, State

Chemicals

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.

2. Please describe what you do during a typical work day. Be sure to tell about your work with BD.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

3. Please check any of these chemicals that you work with now or have worked with in the past:

- benzene \_\_\_\_\_
- glues \_\_\_\_\_
- toluene \_\_\_\_\_
- inks, dyes \_\_\_\_\_
- other solvents, grease cutters \_\_\_\_\_
- insecticides (like DDT, lindane, etc.) \_\_\_\_\_
- paints, varnishes, thinners, strippers \_\_\_\_\_
- dusts \_\_\_\_\_
- carbon tetrachloride ("carbon tet") \_\_\_\_\_
- arsine \_\_\_\_\_

- carbon disulfide \_\_\_\_\_
- lead \_\_\_\_\_
- cement \_\_\_\_\_
- petroleum products \_\_\_\_\_
- nitrites \_\_\_\_\_

4. Please check the protective clothing or equipment you use at the job you have now:

- gloves \_\_\_\_\_
- coveralls \_\_\_\_\_
- respirator \_\_\_\_\_
- dust mask \_\_\_\_\_
- safety glasses, goggles \_\_\_\_\_

Please circle your answer.

5. Does your protective clothing or equipment fit you properly? yes no

6. Have you ever made changes in your protective clothing or equipment to make it fit better? yes no

7. Have you been exposed to BD when you were not wearing protective clothing or equipment? yes no

8. Where do you eat, drink and/or smoke when you are at work? (Please check all that apply.)

- Cafeteria/restaurant/snack bar \_\_\_\_\_
- Break room/employee lounge \_\_\_\_\_
- Smoking lounge \_\_\_\_\_
- At my work station \_\_\_\_\_

Please circle your answer.

9. Have you been exposed to radiation (like x-rays or nuclear material) at the job you have now or at past jobs? yes no

10. Do you have any hobbies that expose you to dusts or chemicals (including paints, glues, etc.)? yes no

11. Do you have any second or side jobs? yes no

If yes, what are your duties there?

\_\_\_\_\_

12. Were you in the military? yes no

If yes, what did you do in the military? \_\_\_\_\_

\_\_\_\_\_

Family Health History

1. In the FAMILY MEMBER column, across from the disease name, write which family member, if any, had the disease.

- DISEASE \_\_\_\_\_
- FAMILY MEMBER \_\_\_\_\_
- Cancer \_\_\_\_\_
- Lymphoma \_\_\_\_\_
- Sickle Cell Disease or Trait \_\_\_\_\_
- Immune Disease \_\_\_\_\_
- Leukemia \_\_\_\_\_
- Anemia \_\_\_\_\_

2. Please fill in the following information about family health

- Relative \_\_\_\_\_
- Alive? \_\_\_\_\_
- Age at Death? \_\_\_\_\_
- Cause of Death? \_\_\_\_\_
- Father \_\_\_\_\_
- Mother \_\_\_\_\_
- Brother/Sister \_\_\_\_\_
- Brother/Sister \_\_\_\_\_
- Brother/Sister \_\_\_\_\_

Personal Health History

Birth Date \_\_\_/\_\_\_/\_\_\_ Age \_\_\_ Sex \_\_\_ Height \_\_\_ Weight \_\_\_

Please circle your answer.

1. Do you smoke any tobacco products? yes no

2. Have you ever had any kind of surgery or operation? yes no

If yes, what type of surgery:

\_\_\_\_\_

3. Have you ever been in the hospital for any other reasons? yes no

If yes, please describe the reason \_\_\_\_\_

\_\_\_\_\_

4. Do you have any on-going or current medical problems or conditions? yes no

If yes, please describe: \_\_\_\_\_

\_\_\_\_\_

5. Do you now have or have you ever had any of the following? Please check all that apply to you.

- unexplained fever \_\_\_\_\_
- anemia ("low blood") \_\_\_\_\_
- HIV/AIDS \_\_\_\_\_
- weakness \_\_\_\_\_
- sickle cell \_\_\_\_\_

- miscarriage \_\_\_\_\_
- skin rash \_\_\_\_\_
- bloody stools \_\_\_\_\_
- leukemia/lymphoma \_\_\_\_\_
- neck mass/swelling \_\_\_\_\_
- wheezing \_\_\_\_\_
- yellowing of skin \_\_\_\_\_
- bruising easily \_\_\_\_\_
- lupus \_\_\_\_\_
- weight loss \_\_\_\_\_
- kidney problems \_\_\_\_\_
- enlarged lymph nodes \_\_\_\_\_
- liver disease \_\_\_\_\_
- cancer \_\_\_\_\_
- infertility \_\_\_\_\_
- drinking problems \_\_\_\_\_
- thyroid problems \_\_\_\_\_
- night sweats \_\_\_\_\_
- chest pain \_\_\_\_\_
- still birth \_\_\_\_\_
- eye redness \_\_\_\_\_
- lumps you can feel \_\_\_\_\_
- child with birth defect \_\_\_\_\_
- autoimmune disease \_\_\_\_\_
- overly tired \_\_\_\_\_
- lung problems \_\_\_\_\_
- rheumatoid arthritis \_\_\_\_\_
- mononucleosis ("mono") \_\_\_\_\_
- nagging cough \_\_\_\_\_

Please circle your answer.

6. Do you have any symptoms or health problems that you think may be related to your work with BD? yes no

If yes, please describe: \_\_\_\_\_

7. Have any of your co-workers had similar symptoms or problems? yes no don't know

If yes, please describe: \_\_\_\_\_

8. Do you notice any irritation of your eyes, nose, throat, lungs, or skin when working with BD? yes no

9. Do you notice any blurred vision, coughing, drowsiness, nausea, or headache when working with BD? yes no

10. Do you take any medications (including birth control or over-the-counter)? yes no

If yes, please list: \_\_\_\_\_

11. Are you allergic to any medication, food, or chemicals? yes no

If yes, please list: \_\_\_\_\_

12. Do you have any health conditions not covered by this questionnaire that you think are affected by your work with BD? yes no

If yes, please explain: \_\_\_\_\_

13. Did you understand all the questions? yes no

Signature \_\_\_\_\_

1,3-Butadiene (BD) Health Update Questionnaire

DIRECTIONS:

You have been asked to answer the questions on this form because you work with BD (butadiene). These questions are about your work, medical history, and health concerns. Please do your best to answer all of the questions. If you need help, please tell the doctor or health care professional who reviews this form.

This form is a confidential medical record. Only information directly related to your health and safety on the job may be given to your employer. Personal health information will not be given to anyone without your consent.

Date: \_\_\_\_\_  
Name: \_\_\_\_\_ SSN \_\_\_ / \_\_\_ / \_\_\_  
Last First MI

Job Title: \_\_\_\_\_

Company's Name: \_\_\_\_\_

Supervisor's Name: \_\_\_\_\_

Supervisor's Phone No.: ( ) \_\_\_ - \_\_\_

1. Please describe any NEW duties that you have at your job. \_\_\_\_\_

\_\_\_\_\_

2. Please describe any additional job duties you have:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Please circle your answer.

3. Are you exposed to any other chemicals in your work since the last time you were evaluated for exposure to BD? yes no

If yes, please list what they are: \_\_\_\_\_

4. Does your personal protective equipment and clothing fit you properly? yes no

5. Have you made changes in this equipment or clothing to make it fit better? yes no

6. Have you been exposed to BD when you were not wearing protective clothing or equipment? yes no

7. Are you exposed to any NEW chemicals at home or while working on hobbies? yes no

If yes, please list what they are: \_\_\_\_\_

8. Since your last BD health evaluation, have you started working any new second or side jobs? yes no

If yes, what are your duties there? \_\_\_\_\_

Personal Health History

1. What is your current weight? \_\_\_\_ pounds

2. Have you been diagnosed with any new medical conditions or illness since your last evaluation? yes no

If yes, please tell what they are: \_\_\_\_\_

3. Since your last evaluation, have you been in the hospital for any illnesses, injuries, or surgery? yes no

If yes, please describe: \_\_\_\_\_

4. Do you have any of the following? Please place a check for all that apply to you.

- unexplained fever \_\_\_\_\_
- anemia ("low blood") \_\_\_\_\_
- HIV/AIDS \_\_\_\_\_
- weakness \_\_\_\_\_
- sickle cell \_\_\_\_\_
- miscarriage \_\_\_\_\_
- skin rash \_\_\_\_\_
- bloody stools \_\_\_\_\_
- leukemia/lymphoma \_\_\_\_\_
- neck mass/swelling \_\_\_\_\_

- wheezing \_\_\_\_\_
- yellowing of skin \_\_\_\_\_
- bruising easily \_\_\_\_\_
- lupus \_\_\_\_\_
- weight loss \_\_\_\_\_
- kidney problems \_\_\_\_\_
- enlarged lymph nodes \_\_\_\_\_
- liver disease \_\_\_\_\_
- cancer \_\_\_\_\_
- infertility \_\_\_\_\_
- drinking problems \_\_\_\_\_
- thyroid problems \_\_\_\_\_
- night sweats \_\_\_\_\_
- chest pain \_\_\_\_\_
- still birth \_\_\_\_\_
- eye redness \_\_\_\_\_
- lumps you can feel \_\_\_\_\_
- child with birth defect \_\_\_\_\_
- autoimmune disease \_\_\_\_\_
- overly tired \_\_\_\_\_
- lung problems \_\_\_\_\_
- rheumatoid arthritis \_\_\_\_\_
- mononucleosis ("mono") \_\_\_\_\_
- nagging cough \_\_\_\_\_

Please circle your answer.

5. Do you have any symptoms or health problems that you think may be related to your work with BD? yes no

If yes, please describe: \_\_\_\_\_

6. Have any of your co-workers had similar symptoms or problems? yes no don't know

If yes, please describe: \_\_\_\_\_

7. Do you notice any irritation of your eyes, nose, throat, lungs, or skin when working with BD? yes no

8. Do you notice any blurred vision, coughing, drowsiness, nausea, or headache when working with BD? yes no

9. Have you been taking any NEW medications (including birth control or over-the-counter)? yes no

If yes, please list: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

10. Have you developed any new allergies to medications, foods, or chemicals? yes no

If yes, please list:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

11. Do you have any health conditions not covered by this questionnaire that you think are affected by your work with BD? yes no

If yes, please describe: \_\_\_\_\_

12. Do you understand all the questions? yes no

Signature \_\_\_\_\_

**AMENDATORY SECTION** (Amending WSR 14-07-086, filed 3/18/14, effective 5/1/14)

**WAC 296-62-07470 Methylene chloride.** This occupational health standard establishes requirements for employers to control occupational exposure to methylene chloride (MC). Employees exposed to MC are at increased risk of developing cancer, adverse effects on the heart, central nervous system and liver, and skin or eye irritation. Exposure may occur through inhalation, by absorption through the skin, or through contact with the skin. MC is a solvent which is used in many different types of work activities, such as paint stripping, polyurethane foam manufacturing, and cleaning and degreasing. Under the requirements of subsection (4) of this section, each covered employer must make an initial determination of each employee's exposure to MC. If the employer determines that employees are exposed below the action level, the only other provisions of this section that apply are that a record must be made of the determination, the employees must receive information and training under subsection (12) of this section and, where appropriate, employees must be protected from contact with liquid MC under subsection (8) of this section.

The provisions of the MC standard are as follows:

(1) Scope and application. This section applies to all occupational exposures to methylene chloride (MC), Chemical Abstracts Service Registry Number 75-09-2, in general industry, construction and shipyard employment.

(2) Definitions. For the purposes of this section, the following definitions shall apply:

~~("Action level" means)~~ **Action level.** A concentration of airborne MC of 12.5 parts per million (ppm) calculated as an eight-hour time-weighted average (TWA).

~~("Authorized person" means)~~ **Authorized person.** Any person specifically authorized by the employer and required by work duties to be present in regulated areas, or any person entering such an area as a designated representative of employees for the purpose of exercising the right to observe monitoring and measuring procedures under subsection (4) of this section, or any other person authorized by the WISH Act or regulations issued under the act.

~~("Director" means)~~ **Director.** The director of the department of labor and industries, or designee.

~~("Emergency" means)~~ **Emergency.** Any occurrence, such as, but not limited to, equipment failure, rupture of containers, or failure of control equipment, which results, or is likely to result in an uncontrolled release of MC. If an incidental release of MC can be controlled by employees such as maintenance personnel at the time of release and in accordance with the leak/spill provisions required by subsection (6) of this section, it is not considered an emergency as defined by this standard.

~~("Employee exposure" means)~~ **Employee exposure.** Exposure to airborne MC which occurs or would occur if the employee were not using respiratory protection.

~~("Methylene chloride (MC)" means)~~ **Methylene chloride (MC).** An organic compound with chemical formula, CH<sub>2</sub>Cl<sub>2</sub>. Its Chemical Abstracts Service Registry Number is 75-09-2. Its molecular weight is 84.9 g/mole.

~~("Physician or other licensed health care professional" is)~~ **Physician or other licensed health care professional.** An individual whose legally permitted scope of practice (i.e., license, registration, or certification) allows ~~(him or her)~~ them to independently provide or be delegated the responsibility to provide some or all of the health care services required by subsection (10) of this section.

~~("Regulated area" means)~~ **Regulated area.** An area, demarcated by the employer, where an employee's exposure to airborne concentrations of MC exceeds or can reasonably be expected to exceed either the eight-hour TWA PEL or the STEL.

~~("Symptom" means)~~ **Symptom.** Central nervous system effects such as headaches, disorientation, dizziness, fatigue, and decreased attention span; skin effects such as chapping, erythema, cracked skin, or skin burns; and cardiac effects such as chest pain or shortness of breath.

~~("This section" means)~~ **This section.** This methylene chloride standard.

(3) Permissible exposure limits (PELs).

(a) Eight-hour time-weighted average (TWA) PEL. The employer ~~(shall)~~ **must** ensure that no employee is exposed to an airborne concentration of MC in excess of twenty-five parts of MC per million parts of air (25 ppm) as an eight-hour TWA.

(b) Short-term exposure limit (STEL). The employer ~~(shall)~~ **must** ensure that no employee is exposed to an airborne concentration of MC in excess of one hundred and twenty-five parts of MC per million parts of air (125 ppm) as determined over a sampling period of fifteen minutes.

(4) Exposure monitoring.

(a) Characterization of employee exposure.

(i) Where MC is present in the workplace, the employer ~~(shall)~~ **must** determine each employee's exposure by either:

(A) Taking a personal breathing zone air sample of each employee's exposure; or

(B) Taking personal breathing zone air samples that are representative of each employee's exposure.

(ii) Representative samples. The employer may consider personal breathing zone air samples to be representative of employee exposures when they are taken as follows:

(A) Eight-hour TWA PEL. The employer has taken one or more personal breathing zone air samples for at least one employee in each job classification in a work area during every work shift, and the employee sampled is expected to have the highest MC exposure.

(B) Short-term exposure limits. The employer has taken one or more personal breathing zone air samples which indicate the highest likely fifteen-minute exposures during such operations for at least one employee in each job classification in the work area during every work shift, and the employee sampled is expected to have the highest MC exposure.

(C) Exception. Personal breathing zone air samples taken during one work shift may be used to represent employee exposures on other work shifts where the employer can document that the tasks performed and conditions in the workplace are similar across shifts.

(iii) Accuracy of monitoring. The employer ~~((shall))~~ **must** ensure that the methods used to perform exposure monitoring produce results that are accurate to a confidence level of ninety-five percent, and are:

(A) Within plus or minus twenty-five percent for airborne concentrations of MC above the eight-hour TWA PEL or the STEL; or

(B) Within plus or minus thirty-five percent for airborne concentrations of MC at or above the action level but at or below the eight-hour TWA PEL.

(b) Initial determination. Each employer whose employees are exposed to MC ~~((shall))~~ **must** perform initial exposure monitoring to determine each affected employee's exposure, except under the following conditions:

(i) Where objective data demonstrate that MC cannot be released in the workplace in airborne concentrations at or above the action level or above the STEL. The objective data ~~((shall))~~ **must** represent the highest MC exposures likely to occur under reasonably foreseeable conditions of processing, use, or handling. The employer ~~((shall))~~ **must** document the objective data exemption as specified in subsection (13) of this section;

(ii) Where the employer has performed exposure monitoring within ~~((12))~~ **twelve** months prior to December 1, and that exposure monitoring meets all other requirements of this section, and was conducted under conditions substantially equivalent to existing conditions; or

(iii) Where employees are exposed to MC on fewer than thirty days per year (e.g., on a construction site), and the employer has measurements by direct reading instruments which give immediate results (such as a detector tube) and which provide sufficient information regarding employee exposures to determine what control measures are necessary to reduce exposures to acceptable levels.

(c) Periodic monitoring. Where the initial determination shows employee exposures at or above the action level or above the STEL, the employer shall establish an exposure monitoring program for periodic monitoring of employee exposure to MC in accordance with Table 1:

Table 1

Six Initial Determination Exposure Scenarios and Their Associated Monitoring Frequencies

Exposure scenario	Required monitoring activity
Below the action level and at or below the STEL.	No eight-hour TWA or STEL monitoring required.
Below the action level and above the STEL.	No eight-hour TWA monitoring required; monitor STEL exposures every three months.
At or above the action level, at or below the TWA, and at or below the STEL.	Monitor eight-hour TWA exposures every six months.
At or above the action level, at or below the TWA, and above the STEL.	Monitor eight-hour TWA exposures every six months and monitor STEL exposures every three months.
Above the TWA and at or below the STEL.	Monitor eight-hour TWA exposures every three months. In addition, without regard to the last sentence of the note to subsection (3) of this section, the following employers must monitor STEL exposures every three months until either the date by which they must achieve the eight-hour TWAs PEL under subsection (3) of this section or the date by which they in fact achieve the eight-hour TWA PEL, whichever comes first: <ul style="list-style-type: none"> <li>• Employers engaged in polyurethane foam manufacturing;</li> <li>• Foam fabrication;</li> <li>• Furniture refinishing;</li> <li>• General aviation aircraft striping;</li> <li>• Product formulation;</li> <li>• Use of MC-based adhesives for boat building and repair;</li> <li>• Recreational vehicle manufacture, van conversion, or upholstery; and use of MC in construction work for restoration and preservation of buildings, painting and paint removal, cabinet making, or floor refinishing and resurfacing.</li> </ul>

Exposure scenario	Required monitoring activity
Above the TWA and above the STEL.	Monitor both eight-hour TWA exposures and STEL exposures every three months.

(Note to subsection (4)(c) of this section: The employer may decrease the frequency of exposure monitoring to every six months when at least two consecutive measurements taken at least seven days apart show exposures to be at or below the eight-hour TWA PEL. The employer may discontinue the periodic eight-hour TWA monitoring for employees where at least two consecutive measurements taken at least seven days apart are below the action level. The employer may discontinue the periodic STEL monitoring for employees where at least two consecutive measurements taken at least seven days apart are at or below the STEL.)

(d) Additional monitoring.

(i) The employer ~~((shall))~~ must perform exposure monitoring when a change in workplace conditions indicates that employee exposure may have increased. Examples of situations that may require additional monitoring include changes in production, process, control equipment, or work practices, or a leak, rupture, or other breakdown.

(ii) Where exposure monitoring is performed due to a spill, leak, rupture or equipment breakdown, the employer ~~((shall))~~ must clean up the MC and perform the appropriate repairs before monitoring.

(e) Employee notification of monitoring results.

(i) The employer ~~((shall))~~ must, within fifteen working days after the receipt of the results of any monitoring performed under this section, notify each affected employee of these results in writing, either individually or by posting of results in an appropriate location that is accessible to affected employees.

(ii) Whenever monitoring results indicate that employee exposure is above the eight-hour TWA PEL or the STEL, the employer ~~((shall))~~ must describe in the written notification the corrective action being taken to reduce employee exposure to or below the eight-hour TWA PEL or STEL and the schedule for completion of this action.

(f) Observation of monitoring.

(i) Employee observation. The employer ~~((shall))~~ must provide affected employees or their designated representatives an opportunity to observe any monitoring of employee exposure to MC conducted in accordance with this section.

(ii) Observation procedures. When observation of the monitoring of employee exposure to MC requires entry into an area where the use of protective clothing or equipment is required, the employer ~~((shall))~~ must provide, at no cost to the observer(s), and the observer(s) ~~((shall be required to))~~ must use such clothing and equipment and ~~((shall))~~ must comply with all other applicable safety and health procedures.

(5) Regulated areas.

(a) The employer ~~((shall))~~ must establish a regulated area wherever an employee's exposure to airborne concentrations of MC exceeds or can reasonably be expected to exceed either the eight-hour TWA PEL or the STEL.

(b) The employer ~~((shall))~~ must limit access to regulated areas to authorized persons.

(c) The employer ~~((shall))~~ must supply a respirator, selected in accordance with subsection (7)(c) of this section, to each person who enters a regulated area and ~~((shall))~~ must require each affected employee to use that respirator whenever MC exposures are likely to exceed the eight-hour TWA PEL or STEL.

(Note to subsection (5)(c) of this section: An employer who has implemented all feasible engineering, work practice and administrative controls (as required in subsection (6) of this section), and who has established a regulated area (as required by subsection (5)(a) of this section) where MC exposure can be reliably predicted to exceed the eight-hour TWA PEL or the STEL only on certain days (for example, because of work or process schedule) would need to have affected employees use respirators in that regulated area only on those days.)

(d) The employer ~~((shall))~~ must ensure that, within a regulated area, employees do not engage in nonwork activities which may increase dermal or oral MC exposure.

(e) The employer ~~((shall))~~ must ensure that while employees are wearing respirators, they do not engage in activities (such as taking medication or chewing gum or tobacco) which interfere with respirator seal or performance.

(f) The employer ~~((shall))~~ must demarcate regulated areas from the rest of the workplace in any manner that adequately establishes and alerts employees to the boundaries of the area and minimizes the number of authorized employees exposed to MC within the regulated area.

(g) An employer at a multiemployer worksite who establishes a regulated area ~~((shall))~~ must communicate the access restrictions and locations of these areas to all other employers with work operations at that worksite.

(6) Methods of compliance.

(a) Engineering and work practice controls. The employer ~~((shall))~~ must institute and maintain the effectiveness of engineering controls and work practices to reduce employee exposure to or below the PELs except to the extent that the employer can demonstrate that such controls are not feasible.

(b) Wherever the feasible engineering controls and work practices which can be instituted are not sufficient to reduce employee exposure to or below the 8-TWA PEL or STEL, the employer ~~((shall))~~ must use them to reduce employee exposure to the lowest levels achievable by these controls and ~~((shall))~~ must supplement them by the use of respiratory protection that complies with the requirements of subsection (7) of this section.

(c) Prohibition of rotation. The employer ~~((shall))~~ must not implement a schedule of employee rotation as a means of compliance with the PELs.

(d) Leak and spill detection.

(i) The employer ~~((shall))~~ must implement procedures to detect leaks of MC in the workplace. In work areas where spills may occur, the employer ~~((shall))~~ must make provisions to contain any spills and to safely dispose of any MC-contaminated waste materials.

(ii) The employer ~~((shall))~~ must ensure that all incidental leaks are repaired and that incidental spills are cleaned promptly by employees who use the appropriate personal

protective equipment and are trained in proper methods of cleanup.

(Note to subsection (6)(d)(ii) of this section: See Appendix A of this section for examples of procedures that satisfy this requirement. Employers covered by this standard may also be subject to the hazardous waste and emergency response provisions contained in ((WAC 296-62-3112)) chapter 296-843 WAC.)

(7) Respiratory protection.

(a) General requirements. For employees who use respirators required by this section, the employer must provide each employee an appropriate respirator that complies with the requirements of this subsection. Respirators must be used during:

(i) Periods when an employee's exposure to MC exceeds or can reasonably be expected to exceed the eight-hour TWA PEL or the STEL (for example, when an employee is using MC in a regulated area);

(ii) Periods necessary to install or implement feasible engineering and work-practice controls;

(iii) In a few work operations, such as some maintenance operations and repair activities, for which the employer demonstrates that engineering and work practice controls are infeasible;

(iv) Work operations for which feasible engineering and work practice controls are not sufficient to reduce exposures to or below the PELs;

(v) Emergencies.

(b) Respirator program.

(i) The employer must develop, implement and maintain a respiratory protection program as required by chapter 296-842 WAC, Respirators, which covers each employee required by this chapter to use a respirator, except for the requirements in Table 5 of WAC 296-842-13005 that address gas or vapor cartridge change schedules and end-of-service-life indicators (ESLIs).

(ii) Employers who provide employees with gas masks with organic-vapor canisters for the purpose of emergency escape must replace the canisters after any emergency use and before the gas masks are returned to service.

(c) Respirator selection. The employer must:

(i) Select and provide to employees appropriate respirators according to this section and WAC 296-842-13005, found in the respirator rule.

(ii) Make sure half-facepiece respirators are not selected or used for protection against MC. This is necessary to prevent eye irritation or damage from MC exposure.

(iii) Provide to employees, for emergency escape, one of the following respirator options:

(A) A self-contained breathing apparatus operated in the continuous-flow or pressure demand mode; or

(B) A gas mask equipped with an organic vapor canister.

(d) Medical evaluation. Before having an employee use a supplied-air respirator in the negative-pressure mode, or a gas mask with an organic-vapor canister for emergency escape, the employer must:

(i) Have a physician or other licensed health care professional (PLHCP) evaluate the employee's ability to use such respiratory protection;

(ii) Ensure that the PLHCP provides their findings in a written opinion to the employee and the employer.

Note: See WAC ((296-62-07150 through 296-62-07156)) 296-842-14005 for medical evaluation requirements for employees using respirators.

(8) Protective work clothing and equipment.

(a) Where needed to prevent MC-induced skin or eye irritation, the employer ((shall)) must provide clean protective clothing and equipment which is resistant to MC, at no cost to the employee, and ((shall)) must ensure that each affected employee uses it. Eye and face protection shall meet the requirements of WAC 296-800-160, as applicable.

(b) The employer ((shall)) must clean, launder, repair and replace all protective clothing and equipment required by this subsection as needed to maintain their effectiveness.

(c) The employer ((shall)) must be responsible for the safe disposal of such clothing and equipment.

(Note to subsection (8)(c) of this section: See Appendix A for examples of disposal procedures that will satisfy this requirement.)

(9) Hygiene facilities.

(a) If it is reasonably foreseeable that employees' skin may contact solutions containing 0.1 percent or greater MC (for example, through splashes, spills or improper work practices), the employer ((shall)) must provide conveniently located washing facilities capable of removing the MC, and ((shall)) must ensure that affected employees use these facilities as needed.

(b) If it is reasonably foreseeable that an employee's eyes may contact solutions containing 0.1 percent or greater MC (for example through splashes, spills or improper work practices), the employer ((shall)) must provide appropriate eye-wash facilities within the immediate work area for emergency use, and ((shall)) must ensure that affected employees use those facilities when necessary.

(10) Medical surveillance.

(a) Affected employees. The employer ((shall)) must make medical surveillance available for employees who are or may be exposed to MC as follows:

(i) At or above the action level on thirty or more days per year, or above the eight-hour TWA PEL or the STEL on ten or more days per year;

(ii) Above the 8-TWA PEL or STEL for any time period where an employee has been identified by a physician or other licensed health care professional as being at risk from cardiac disease or from some other serious MC-related health condition and such employee requests inclusion in the medical surveillance program;

(iii) During an emergency.

(b) Costs. The employer ((shall)) must provide all required medical surveillance at no cost to affected employees, without loss of pay and at a reasonable time and place.

(c) Medical personnel. The employer ((shall)) must ensure that all medical surveillance procedures are performed by a physician or other licensed health care professional, as defined in subsection (2) of this section.

(d) Frequency of medical surveillance. The employer ((shall)) must make medical surveillance available to each affected employee as follows:

(i) Initial surveillance. The employer ~~((shall))~~ must provide initial medical surveillance under the schedule provided by subsection (14)(b)(iii) of this section, or before the time of initial assignment of the employee, whichever is later. ~~((The employer need not provide the initial surveillance if medical records show that an affected employee has been provided with medical surveillance that complies with this section within twelve months before December 1.))~~

(ii) Periodic medical surveillance. The employer ~~((shall))~~ must update the medical and work history for each affected employee annually. The employer ~~((shall))~~ must provide periodic physical examinations, including appropriate laboratory surveillance, as follows:

(A) For employees forty-five years of age or older, within twelve months of the initial surveillance or any subsequent medical surveillance; and

(B) For employees younger than forty-five years of age, within thirty-six months of the initial surveillance or any subsequent medical surveillance.

(iii) Termination of employment or reassignment. When an employee leaves the employer's workplace, or is reassigned to an area where exposure to MC is consistently at or below the action level and STEL, medical surveillance ~~((shall))~~ must be made available if six months or more have elapsed since the last medical surveillance.

(iv) Additional surveillance. The employer ~~((shall))~~ must provide additional medical surveillance at frequencies other than those listed above when recommended in the written medical opinion. (For example, the physician or other licensed health care professional may determine an examination is warranted in less than thirty-six months for employees younger than forty-five years of age based upon evaluation of the results of the annual medical and work history.)

(e) Content of medical surveillance.

(i) Medical and work history. The comprehensive medical and work history ~~((shall))~~ must emphasize neurological symptoms, skin conditions, history of hematologic or liver disease, signs or symptoms suggestive of heart disease (angina, coronary artery disease), risk factors for cardiac disease, MC exposures, and work practices and personal protective equipment used during such exposures.

(Note to subsection (10)(e)(i) of this section: See Appendix B of this section for an example of a medical and work history format that would satisfy this requirement.)

(ii) Physical examination. Where physical examinations are provided as required above, the physician or other licensed health care professional ~~((shall))~~ must accord particular attention to the lungs, cardiovascular system (including blood pressure and pulse), liver, nervous system, and skin. The physician or other licensed health care professional ~~((shall))~~ must determine the extent and nature of the physical examination based on the health status of the employee and analysis of the medical and work history.

(iii) Laboratory surveillance. The physician or other licensed health care professional ~~((shall))~~ must determine the extent of any required laboratory surveillance based on the employee's observed health status and the medical and work history.

(Note to subsection (10)(e)(iii) of this section: See Appendix B of this section for information regarding medical

tests. Laboratory surveillance may include before-and after-shift carboxyhemoglobin determinations, resting ECG, hematocrit, liver function tests and cholesterol levels.)

(iv) Other information or reports. The medical surveillance ~~((shall))~~ must also include any other information or reports the physician or other licensed health care professional determines are necessary to assess the employee's health in relation to MC exposure.

(f) Content of emergency medical surveillance. The employer ~~((shall))~~ must ensure that medical surveillance made available when an employee has been exposed to MC in emergency situations includes, at a minimum:

(i) Appropriate emergency treatment and decontamination of the exposed employee;

(ii) Comprehensive physical examination with special emphasis on the nervous system, cardiovascular system, lungs, liver and skin, including blood pressure and pulse;

(iii) Updated medical and work history, as appropriate for the medical condition of the employee; and

(iv) Laboratory surveillance, as indicated by the employee's health status.

(Note to subsection (10)(f)(iv) of this section: See Appendix B for examples of tests which may be appropriate.)

(g) Additional examinations and referrals. Where the physician or other licensed health care professional determines it is necessary, the scope of the medical examination ~~((shall))~~ must be expanded and the appropriate additional medical surveillance, such as referrals for consultation or examination, shall be provided.

(h) Information provided to the physician or other licensed health care professional. The employer ~~((shall))~~ must provide the following information to a physician or other licensed health care professional who is involved in the diagnosis of MC-induced health effects:

(i) A copy of this section including its applicable appendices;

(ii) A description of the affected employee's past, current and anticipated future duties as they relate to the employee's MC exposure;

(iii) The employee's former or current exposure levels or, for employees not yet occupationally exposed to MC, the employee's anticipated exposure levels and the frequency and exposure levels anticipated to be associated with emergencies;

(iv) A description of any personal protective equipment, such as respirators, used or to be used; and

(v) Information from previous employment-related medical surveillance of the affected employee which is not otherwise available to the physician or other licensed health care professional.

(i) Written medical opinions.

(i) For each physical examination required by this section, the employer ~~((shall))~~ must ensure that the physician or other licensed health care professional provides to the employer and to the affected employee a written opinion regarding the results of that examination within fifteen days of completion of the evaluation of medical and laboratory findings, but not more than thirty days after the examination. The written medical opinion ~~((shall))~~ must be limited to the following information:

(A) The physician's or other licensed health care professional's opinion concerning whether exposure to MC may contribute to or aggravate the employee's existing cardiac, hepatic, neurological (including stroke) or dermal disease or whether the employee has any other medical condition(s) that would place the employee's health at increased risk of material impairment from exposure to MC;

(B) Any recommended limitations upon the employee's exposure to MC, removal from MC exposure, or upon the employee's use of protective clothing or equipment and respirators;

(C) A statement that the employee has been informed by the physician or other licensed health care professional that MC is a potential occupational carcinogen, of risk factors for heart disease, and the potential for exacerbation of underlying heart disease by exposure to MC through its metabolism to carbon monoxide; and

(D) A statement that the employee has been informed by the physician or other licensed health care professional of the results of the medical examination and any medical conditions resulting from MC exposure which require further explanation or treatment.

(ii) The employer (~~shall~~) must instruct the physician or other licensed health care professional not to reveal to the employer, orally or in the written opinion, any specific records, findings, and diagnoses that have no bearing on occupational exposure to MC.

(Note to subsection (10)(h)(ii) of this section: The written medical opinion may also include information and opinions generated to comply with other OSHA health standards.)

(j) Medical presumption. For purposes of this subsection (10), the physician or other licensed health care professional (~~shall~~) must presume, unless medical evidence indicates to the contrary, that a medical condition is unlikely to require medical removal from MC exposure if the employee is not exposed to MC above the eight-hour TWA PEL. If the physician or other licensed health care professional recommends removal for an employee exposed below the eight-hour TWA PEL, the physician or other licensed health care professional (~~shall~~) must cite specific medical evidence, sufficient to rebut the presumption that exposure below the eight-hour TWA PEL is unlikely to require removal, to support the recommendation. If such evidence is cited by the physician or other licensed health care professional, the employer must remove the employee. If such evidence is not cited by the physician or other licensed health care professional, the employer is not required to remove the employee.

(k) Medical removal protection (MRP).

(i) Temporary medical removal and return of an employee.

(A) Except as provided in (j) of this subsection, when a medical determination recommends removal because the employee's exposure to MC may contribute to or aggravate the employee's existing cardiac, hepatic, neurological (including stroke), or skin disease, the employer must provide medical removal protection benefits to the employee and either:

(I) Transfer the employee to comparable work where methylene chloride exposure is below the action level; or

(II) Remove the employee from MC exposure.

(B) If comparable work is not available and the employer is able to demonstrate that removal and the costs of extending MRP benefits to an additional employee, considering feasibility in relation to the size of the employer's business and the other requirements of this standard, make further reliance on MRP an inappropriate remedy, the employer may retain the additional employee in the existing job until transfer or removal becomes appropriate, provided:

(I) The employer ensures that the employee receives additional medical surveillance, including a physical examination at least every sixty days until transfer or removal occurs; and

(II) The employer or PLHCP informs the employee of the risk to the employee's health from continued MC exposure.

(C) The employer (~~shall~~) must maintain in effect any job-related protective measures or limitations, other than removal, for as long as a medical determination recommends them to be necessary.

(ii) End of MRP benefits and return of the employee to former job status.

(A) The employer may cease providing MRP benefits at the earliest of the following:

(I) Six months;

(II) Return of the employee to the employee's former job status following receipt of a medical determination concluding that the employee's exposure to MC no longer will aggravate any cardiac, hepatic, neurological (including stroke), or dermal disease;

(III) Receipt of a medical determination concluding that the employee can never return to MC exposure.

(B) For the purposes of this subsection (10), the requirement that an employer return an employee to the employee's former job status is not intended to expand upon or restrict any rights an employee has or would have had, absent temporary medical removal, to a specific job classification or position under the terms of a collective bargaining agreement.

(l) Medical removal protection benefits.

(i) For purposes of this subsection (10), the term medical removal protection benefits means that, for each removal, an employer must maintain for up to six months the earnings, seniority, and other employment rights and benefits of the employee as though the employee had not been removed from MC exposure or transferred to a comparable job.

(ii) During the period of time that an employee is removed from exposure to MC, the employer may condition the provision of medical removal protection benefits upon the employee's participation in follow-up medical surveillance made available pursuant to this section.

(iii) If a removed employee files a workers' compensation claim for a MC-related disability, the employer (~~shall~~) must continue the MRP benefits required by this section until either the claim is resolved or the six-month period for payment of MRP benefits has passed, whichever occurs first. To the extent the employee is entitled to indemnity payments for earnings lost during the period of removal, the employer's obligation to provide medical removal protection benefits to the employee shall be reduced by the amount of such indemnity payments.

(iv) The employer's obligation to provide medical removal protection benefits to a removed employee ((shall)) must be reduced to the extent that the employee receives compensation for earnings lost during the period of removal from either a publicly or an employer-funded compensation program, or receives income from employment with another employer made possible by virtue of the employee's removal.

(m) Voluntary removal or restriction of an employee. Where an employer, although not required by this section to do so, removes an employee from exposure to MC or otherwise places any limitation on an employee due to the effects of MC exposure on the employee's medical condition, the employer ((shall)) must provide medical removal protection benefits to the employee equal to those required by (l) of this subsection.

(n) Multiple health care professional review mechanism.

(i) If the employer selects the initial physician or licensed health care professional (PLHCP) to conduct any medical examination or consultation provided to an employee under (k) of this subsection, the employer ((shall)) must notify the employee of the right to seek a second medical opinion each time the employer provides the employee with a copy of the written opinion of that PLHCP.

(ii) If the employee does not agree with the opinion of the employer-selected PLHCP, notifies the employer of that fact, and takes steps to make an appointment with a second PLHCP within fifteen days of receiving a copy of the written opinion of the initial PLHCP, the employer ((shall)) must pay for the PLHCP chosen by the employee to perform at least the following:

(A) Review any findings, determinations or recommendations of the initial PLHCP; and

(B) Conduct such examinations, consultations, and laboratory tests as the PLHCP deems necessary to facilitate this review.

(iii) If the findings, determinations or recommendations of the second PLHCP differ from those of the initial PLHCP, then the employer and the employee ((shall)) must instruct the two health care professionals to resolve the disagreement.

(iv) If the two health care professionals are unable to resolve their disagreement within fifteen days, then those two health care professionals ((shall)) must jointly designate a PLHCP who is a specialist in the field at issue. The employer ((shall)) must pay for the specialist to perform at least the following:

(A) Review the findings, determinations, and recommendations of the first two PLHCPs; and

(B) Conduct such examinations, consultations, laboratory tests and discussions with the prior PLHCPs as the specialist deems necessary to resolve the disagreements of the prior health care professionals.

(v) The written opinion of the specialist ((shall)) must be the definitive medical determination. The employer ((shall)) must act consistent with the definitive medical determination, unless the employer and employee agree that the written opinion of one of the other two PLHCPs shall be the definitive medical determination.

(vi) The employer and the employee or authorized employee representative may agree upon the use of any expeditious alternate health care professional determination

mechanism in lieu of the multiple health care professional review mechanism provided by this section so long as the alternate mechanism otherwise satisfies the requirements contained in this section.

(11) Hazard communication - General.

(a) Chemical manufacturers, importers, distributors, and employers ((shall)) must comply with all requirements of the Hazard Communication Standard (HCS), WAC 296-901-140 for MC.

(b) In classifying the hazards of MC at least the following hazards are to be addressed: Cancer, cardiac effects (including elevation of carboxyhemoglobin), central nervous system effects, liver effects, and skin and eye irritation.

(c) Employers ((shall)) must include MC in the hazard communication program established to comply with the HCS, WAC 296-901-140. Employers ((shall)) must ensure that each employee has access to labels on containers of MC and to safety data sheets, and is trained in accordance with the requirements of HCS and subsection (12) of this section.

(12) Employee information and training.

(a) The employer ((shall)) must provide information and training for each affected employee prior to or at the time of initial assignment to a job involving potential exposure to MC.

(b) The employer ((shall)) must ensure that information and training is presented in a manner that is understandable to the employees.

(c) In addition to the information required under the Hazard Communication Standard at WAC 296-901-140:

(i) The employer ((shall)) must inform each affected employee of the requirements of this section and information available in its appendices, as well as how to access or obtain a copy of it in the workplace;

(ii) Wherever an employee's exposure to airborne concentrations of MC exceeds or can reasonably be expected to exceed the action level, the employer ((shall)) must inform each affected employee of the quantity, location, manner of use, release, and storage of MC and the specific operations in the workplace that could result in exposure to MC, particularly noting where exposures may be above the eight-hour TWA PEL or STEL;

(d) The employer ((shall)) must train each affected employee as required under the Hazard Communication Standard at WAC 296-901-140, as appropriate.

(e) The employer ((shall)) must retrain each affected employee as necessary to ensure that each employee exposed above the action level or the STEL maintains the requisite understanding of the principles of safe use and handling of MC in the workplace.

(f) Whenever there are workplace changes, such as modifications of tasks or procedures or the institution of new tasks or procedures, which increase employee exposure, and where those exposures exceed or can reasonably be expected to exceed the action level, the employer ((shall)) must update the training as necessary to ensure that each affected employee has the requisite proficiency.

(g) An employer whose employees are exposed to MC at a multiemployer worksite ((shall)) must notify the other employers with work operations at that site in accordance

with the requirements of the Hazard Communication Standard, WAC 296-901-140, as appropriate.

(h) The employer ((~~shall~~)) must provide to the director, upon request, all available materials relating to employee information and training.

(13) Recordkeeping.

(a) Objective data.

(i) Where an employer seeks to demonstrate that initial monitoring is unnecessary through reasonable reliance on objective data showing that any materials in the workplace containing MC will not release MC at levels which exceed the action level or the STEL under foreseeable conditions of exposure, the employer ((~~shall~~)) must establish and maintain an accurate record of the objective data relied upon in support of the exemption.

(ii) This record ((~~shall~~)) must include at least the following information:

(A) The MC-containing material in question;

(B) The source of the objective data;

(C) The testing protocol, results of testing, and/or analysis of the material for the release of MC;

(D) A description of the operation exempted under subsection (4)(b)(i) of this section and how the data support the exemption; and

(E) Other data relevant to the operations, materials, processing, or employee exposures covered by the exemption.

(iii) The employer ((~~shall~~)) must maintain this record for the duration of the employer's reliance upon such objective data.

(b) Exposure measurements.

(i) The employer ((~~shall~~)) must establish and keep an accurate record of all measurements taken to monitor employee exposure to MC as prescribed in subsection (4) of this section.

(ii) Where the employer has twenty or more employees, this record ((~~shall~~)) must include at least the following information:

(A) The date of measurement for each sample taken;

(B) The operation involving exposure to MC which is being monitored;

(C) Sampling and analytical methods used and evidence of their accuracy;

(D) Number, duration, and results of samples taken;

(E) Type of personal protective equipment, such as respiratory protective devices, worn, if any; and

(F) Name, Social Security number, job classification and exposure of all of the employees represented by monitoring, indicating which employees were actually monitored.

(iii) Where the employer has fewer than twenty employees, the record ((~~shall~~)) must include at least the following information:

(A) The date of measurement for each sample taken;

(B) Number, duration, and results of samples taken; and

(C) Name, Social Security number, job classification and exposure of all of the employees represented by monitoring, indicating which employees were actually monitored.

(iv) The employer ((~~shall~~)) must maintain this record for at least thirty (30) years, in accordance with chapter 296-802 WAC.

(c) Medical surveillance.

(i) The employer ((~~shall~~)) must establish and maintain an accurate record for each employee subject to medical surveillance under subsection (10) of this section.

(ii) The record ((~~shall~~)) must include at least the following information:

(A) The name, Social Security number and description of the duties of the employee;

(B) Written medical opinions; and

(C) Any employee medical conditions related to exposure to MC.

(iii) The employer ((~~shall~~)) must ensure that this record is maintained for the duration of employment plus thirty years, in accordance with chapter 296-802 WAC.

(d) Availability.

(i) The employer, upon written request, ((~~shall~~)) must make all records required to be maintained by this section available to the director for examination and copying in accordance with chapter 296-802 WAC.

(Note to subsection (13)(d)(i) of this section: All records required to be maintained by this section may be kept in the most administratively convenient form (for example, electronic or computer records would satisfy this requirement).)

(ii) The employer, upon request, ((~~shall~~)) must make any employee exposure and objective data records required by this section available for examination and copying by affected employees, former employees, and designated representatives in accordance with chapter 296-802 WAC.

(iii) The employer, upon request, ((~~shall~~)) must make employee medical records required to be kept by this section available for examination and copying by the subject employee and by anyone having the specific written consent of the subject employee in accordance with chapter 296-802 WAC.

(e) Transfer of records. The employer ((~~shall~~)) must comply with the requirements concerning transfer of records set forth in WAC ((296-62-05215)) 296-802-600 Transfer and disposal of employee records.

(14) Dates.

(a) Engineering controls required under subsection (6)(a) of this section ((~~shall~~)) must be implemented according to the following schedule:

(i) For employers with fewer than twenty employees, no later than April 10, 2000.

(ii) For employers with fewer than one hundred fifty employees engaged in foam fabrication; for employers with fewer than fifty employees engaged in furniture refinishing, general aviation aircraft stripping, and product formulation; for employers with fewer than fifty employees using MC-based adhesives for boat building and repair, recreational vehicle manufacture, van conversion, and upholstery; for employers with fewer than fifty employees using MC in construction work for restoration and preservation of buildings, painting and paint removal, cabinet making and/or floor refinishing and resurfacing, no later than April 10, 2000.

(iii) For employers engaged in polyurethane foam manufacturing with twenty or more employees, no later than October 10, 1999.

(b) Use of respiratory protection whenever an employee's exposure to MC exceeds or can reasonably be

expected to exceed the eight-hour TWA PEL, in accordance with subsections (3)(a), (5)(c), (6)(a) and (7)(a) of this section, ~~((shall))~~ must be implemented according to the following schedule:

(i) For employers with fewer than one hundred fifty employees engaged in foam fabrication; for employers with fewer than fifty employees engaged in furniture refinishing, general aviation aircraft stripping, and product formulation; for employers with fewer than fifty employees using MC-based adhesives for boat building and repair, recreational vehicle manufacture, van conversion, and upholstery; for employers with fewer than fifty employees using MC in construction work for restoration and preservation of buildings, painting and paint removal, cabinet making and/or floor refinishing and resurfacing, no later than April 10, 2000.

(ii) For employers engaged in polyurethane foam manufacturing with twenty or more employees, no later than October 10, 1999.

(c) Notification of corrective action under subsection (4)(e)(ii) of this section, no later than ninety days before the compliance date applicable to such corrective action.

(d) Transitional dates. The exposure limits for MC specified in WAC ~~((296-62-07515))~~ 296-307-62610 Table 1, ~~((shall))~~ must remain in effect until the start up dates for the exposure limits specified in subsection (14) of this section, or if the exposure limits in this section are stayed or vacated.

(e) Unless otherwise specified in this subsection, all other requirements of this section ~~((shall))~~ must be complied with immediately.

(15) Appendices. The information contained in the appendices does not, by itself, create any additional obligations not otherwise imposed or detract from any existing obligation.

AMENDATORY SECTION (Amending WSR 14-07-086, filed 3/18/14, effective 5/1/14)

**WAC 296-62-07473 Appendix A. Substance Safety Data Sheet and Technical Guidelines for Methylene Chloride**

**I. Substance Identification**

A. Substance: Methylene chloride (CH<sub>2</sub>Cl<sub>2</sub>).

B. Synonyms: MC, Dichloromethane (DCM); Methylene dichloride; Methylene bichloride; Methane dichloride; CAS: 75-09-2; NCI-C50102.

C. Physical data:

1. Molecular weight: 84.9.
2. Boiling point (760 mm Hg): 39.8 deg. C (104 deg. F).
3. Specific gravity (water = 1): 1.3.
4. Vapor density (air = 1 at boiling point): 2.9.
5. Vapor pressure at 20 deg. C (68 deg. F): 350 mm Hg.
6. Solubility in water, g/100 g water at 20 deg. C (68 deg. F) = 1.32.

7. Appearance and odor: colorless liquid with a chloroform-like odor.

D. Uses: MC is used as a solvent, especially where high volatility is required. It is a good solvent for oils, fats, waxes, resins, bitumen, rubber and cellulose acetate and is a useful paint stripper and degreaser. It is used in paint removers, in propellant mixtures for aerosol containers, as a solvent for plastics, as a degreasing agent, as an extracting agent in the

pharmaceutical industry and as a blowing agent in polyurethane foams. Its solvent property is sometimes increased by mixing with methanol, petroleum naphtha or tetrachloroethylene.

E. Appearance and odor: MC is a clear colorless liquid with a chloroform-like odor. It is slightly soluble in water and completely miscible with most organic solvents.

F. Permissible exposure: Exposure may not exceed 25 parts MC per million parts of air (25 ppm) as an eight-hour time-weighted average (eight-hour TWA PEL) or 125 parts of MC per million parts of air (125 ppm) averaged over a fifteen-minute period (STEL).

**II. Health Hazard Data**

A. MC can affect the body if it is inhaled or if the liquid comes in contact with the eyes or skin. It can also affect the body if it is swallowed.

**B. Effects of overexposure:**

1. Short-term Exposure: MC is an anesthetic. Inhaling the vapor may cause mental confusion, light-headedness, nausea, vomiting, and headache. Continued exposure may cause increased light-headedness, staggering, unconsciousness, and even death. High vapor concentrations may also cause irritation of the eyes and respiratory tract. Exposure to MC may make the symptoms of angina (chest pains) worse. Skin exposure to liquid MC may cause irritation. If liquid MC remains on the skin, it may cause skin burns. Splashes of the liquid into the eyes may cause irritation.

2. Long-term (chronic) exposure: The best evidence that MC causes cancer is from laboratory studies in which rats, mice and hamsters inhaled MC six hours per day, five days per week for two years. MC exposure produced lung and liver tumors in mice and mammary tumors in rats. No carcinogenic effects of MC were found in hamsters. There are also some human epidemiological studies which show an association between occupational exposure to MC and increases in biliary (bile duct) cancer and a type of brain cancer. Other epidemiological studies have not observed a relationship between MC exposure and cancer. WISHA interprets these results to mean that there is suggestive (but not absolute) evidence that MC is a human carcinogen.

C. Reporting signs and symptoms: You should inform your employer if you develop any signs or symptoms and suspect that they are caused by exposure to MC.

**D. Warning Properties:**

1. Odor Threshold: Different authors have reported varying odor thresholds for MC. Kirk-Othmer and Sax both reported 25 to 50 ppm; Summer and May both reported 150 ppm; Spector reports 320 ppm. Patty, however, states that since one can become adapted to the odor, MC should not be considered to have adequate warning properties.

2. Eye Irritation Level: Kirk-Othmer reports that "MC vapor is seriously damaging to the eyes." Sax agrees with Kirk-Othmer's statement. The ACGIH Documentation of TLVs states that irritation of the eyes has been observed in workers exposed to concentrations up to 5000 ppm.

3. Evaluation of Warning Properties: Since a wide range of MC odor thresholds are reported (25-320 ppm), and human adaptation to the odor occurs, MC is considered to be a material with poor warning properties.

### III. Emergency First-Aid Procedures

In the event of emergency, institute first-aid procedures and send for first-aid or medical assistance.

A. Eye and Skin Exposures: If there is a potential for liquid MC to come in contact with eye or skin, face shields and skin protective equipment must be provided and used. If liquid MC comes in contact with the eye, get medical attention. Contact lenses should not be worn when working with this chemical.

B. Breathing: If a person breathes in large amounts of MC, move the exposed person to fresh air at once. If breathing has stopped, perform cardiopulmonary resuscitation. Keep the affected person warm and at rest. Get medical attention as soon as possible.

C. Rescue: Move the affected person from the hazardous exposure immediately. If the exposed person has been overcome, notify someone else and put into effect the established emergency rescue procedures. Understand the facility's emergency rescue procedures and know the locations of rescue equipment before the need arises. Do not become a casualty yourself.

### IV. Respirators, Protective Clothing, and Eye Protection

A. Respirators: Good industrial hygiene practices recommend that engineering controls be used to reduce environmental concentrations to the permissible exposure level. However, there are some exceptions where respirators may be used to control exposure. Respirators may be used when engineering and work practice controls are not feasible, when such controls are in the process of being installed, or when these controls fail and need to be supplemented. Respirators may also be used for operations which require entry into tanks or closed vessels, and in emergency situations. If the use of respirators is necessary, the only respirators permitted are those that have been approved by the National Institute for Occupational Safety and Health (NIOSH). Supplied-air respirators are required because air-purifying respirators do not provide adequate respiratory protection against MC. In addition to respirator selection, a complete written respiratory protection program should be instituted which includes regular training, maintenance, inspection, cleaning, and evaluation. If you can smell MC while wearing a respirator, proceed immediately to fresh air. If you experience difficulty in breathing while wearing a respirator, tell your employer.

B. Protective Clothing: Employees must be provided with and required to use impervious clothing, gloves, face shields (eight-inch minimum), and other appropriate protective clothing necessary to prevent repeated or prolonged skin contact with liquid MC or contact with vessels containing liquid MC. Any clothing which becomes wet with liquid MC should be removed immediately and not reworn until the employer has ensured that the protective clothing is fit for reuse. Contaminated protective clothing should be placed in a regulated area designated by the employer for removal of MC before the clothing is laundered or disposed of. Clothing and equipment should remain in the regulated area until all of the MC contamination has evaporated; clothing and equipment should then be laundered or disposed of as appropriate.

C. Eye Protection: Employees should be provided with and required to use splash-proof safety goggles where liquid MC may contact the eyes.

### V. Housekeeping and Hygiene Facilities

For purposes of complying with WAC ((~~296-24-120~~)) 296-800-220 and 296-800-230, the following items should be emphasized:

A. The workplace should be kept clean, orderly, and in a sanitary condition. The employer should institute a leak and spill detection program for operations involving liquid MC in order to detect sources of fugitive MC emissions.

B. Emergency drench showers and eyewash facilities are recommended. These should be maintained in a sanitary condition. Suitable cleansing agents should also be provided to assure the effective removal of MC from the skin.

C. Because of the hazardous nature of MC, contaminated protective clothing should be placed in a regulated area designated by the employer for removal of MC before the clothing is laundered or disposed of.

### VI. Precautions for Safe Use, Handling, and Storage

A. Fire and Explosion Hazards: MC has no flash point in a conventional closed tester, but it forms flammable vapor-air mixtures at approximately 100 deg. C (212 deg. F), or higher. It has a lower explosion limit of 12%, and an upper explosion limit of 19% in air. It has an autoignition temperature of 556.1 deg. C (1033 deg. F), and a boiling point of 39.8 deg. C (104 deg. F). It is heavier than water with a specific gravity of 1.3. It is slightly soluble in water.

B. Reactivity Hazards: Conditions contributing to the instability of MC are heat and moisture. Contact with strong oxidizers, caustics, and chemically active metals such as aluminum or magnesium powder, sodium and potassium may cause fires and explosions. Special precautions: Liquid MC will attack some forms of plastics, rubber, and coatings.

C. Toxicity: Liquid MC is painful and irritating if splashed in the eyes or if confined on the skin by gloves, clothing, or shoes. Vapors in high concentrations may cause narcosis and death. Prolonged exposure to vapors may cause cancer or exacerbate cardiac disease.

D. Storage: Protect against physical damage. Because of its corrosive properties, and its high vapor pressure, MC should be stored in plain, galvanized or lead lined, mild steel containers in a cool, dry, well ventilated area away from direct sunlight, heat source and acute fire hazards.

E. Piping Material: All piping and valves at the loading or unloading station should be of material that is resistant to MC and should be carefully inspected prior to connection to the transport vehicle and periodically during the operation.

F. Usual Shipping Containers: Glass bottles, 5- and 55-gallon steel drums, tank cars, and tank trucks.

Note: This section addresses MC exposure in marine terminal and longshore employment only where leaking or broken packages allow MC exposure that is not addressed through compliance with WAC 296-56.

G. Electrical Equipment: Electrical installations in Class I hazardous locations as defined in Article 500 of the National Electrical Code, should be installed according to Article 501 of the code; and electrical equipment should be suitable for use in atmospheres containing MC vapors. See Flammable and Combustible Liquids Code (NFPA No. 325M), Chemical Safety Data Sheet SD-86 (Manufacturing Chemists' Association, Inc.).

H. Firefighting: When involved in fire, MC emits highly toxic and irritating fumes such as phosgene, hydrogen chloride and carbon monoxide. Wear breathing apparatus and use water spray to keep fire-exposed containers cool. Water spray may be used to flush spills away from exposures. Extinguishing media are dry chemical, carbon dioxide, foam. For purposes of compliance with WAC ((~~296-24-956~~) 296-24-957), locations classified as hazardous due to the presence of MC shall be Class I.

I. Spills and Leaks: Persons not wearing protective equipment and clothing should be restricted from areas of spills or leaks until cleanup has been completed. If MC has spilled or leaked, the following steps should be taken:

1. Remove all ignition sources.
2. Ventilate area of spill or leak.
3. Collect for reclamation or absorb in vermiculite, dry sand, earth, or a similar material.

J. Methods of Waste Disposal: Small spills should be absorbed onto sand and taken to a safe area for atmospheric evaporation. Incineration is the preferred method for disposal of large quantities by mixing with a combustible solvent and spraying into an incinerator equipped with acid scrubbers to remove hydrogen chloride gases formed. Complete combustion will convert carbon monoxide to carbon dioxide. Care should be taken for the presence of phosgene.

K. You should not keep food, beverage, or smoking materials, or eat or smoke in regulated areas where MC concentrations are above the permissible exposure limits.

L. Portable heating units should not be used in confined areas where MC is used.

M. Ask your supervisor where MC is used in your work area and for any additional plant safety and health rules.

#### VII. Medical Requirements

Your employer is required to offer you the opportunity to participate in a medical surveillance program if you are exposed to MC at concentrations at or above the action level (12.5 ppm eight-hour TWA) for more than thirty days a year or at concentrations exceeding the PELs (25 ppm eight-hour TWA or 125 ppm fifteen-minute STEL) for more than ten days a year. If you are exposed to MC at concentrations over either of the PELs, your employer will also be required to have a physician or other licensed health care professional ensure that you are able to wear the respirator that you are assigned. Your employer must provide all medical examinations relating to your MC exposure at a reasonable time and place and at no cost to you.

#### VIII. Monitoring and Measurement Procedures

##### A. Exposure above the Permissible Exposure Limit:

1. Eight-hour exposure evaluation: Measurements taken for the purpose of determining employee exposure under this section are best taken with consecutive samples covering the full shift. Air samples must be taken in the employee's breathing zone.

2. Monitoring techniques: The sampling and analysis under this section may be performed by collection of the MC vapor on two charcoal adsorption tubes in series or other composition adsorption tubes, with subsequent chemical analysis. Sampling and analysis may also be performed by instruments such as real-time continuous monitoring systems, portable direct reading instruments, or passive dosime-

ters as long as measurements taken using these methods accurately evaluate the concentration of MC in employees' breathing zones. OSHA method 80 is an example of a validated method of sampling and analysis of MC. Copies of this method are available from OSHA or can be downloaded from the internet at <http://www.osha.gov>. The employer has the obligation of selecting a monitoring method which meets the accuracy and precision requirements of the standard under his or her unique field conditions. The standard requires that the method of monitoring must be accurate, to a ninety-five percent confidence level, to plus or minus twenty-five percent for concentrations of MC at or above 25 ppm, and to plus or minus thirty-five percent for concentrations at or below 25 ppm. In addition to OSHA method 80, there are numerous other methods available for monitoring for MC in the workplace.

B. Since many of the duties relating to employee exposure are dependent on the results of measurement procedures, employers must assure that the evaluation of employee exposure is performed by a technically qualified person.

#### IX. Observation of Monitoring

Your employer is required to perform measurements that are representative of your exposure to MC and you or your designated representative are entitled to observe the monitoring procedure. You are entitled to observe the steps taken in the measurement procedure, and to record the results obtained. When the monitoring procedure is taking place in an area where respirators or personal protective clothing and equipment are required to be worn, you or your representative must also be provided with, and must wear, protective clothing and equipment.

#### Access To Information

A. Your employer is required to inform you of the information contained in this Appendix. In addition, your employer must instruct you in the proper work practices for using MC, emergency procedures, and the correct use of protective equipment.

B. Your employer is required to determine whether you are being exposed to MC. You or your representative has the right to observe employee measurements and to record the results obtained. Your employer is required to inform you of your exposure. If your employer determines that you are being over exposed, he or she is required to inform you of the actions which are being taken to reduce your exposure to within permissible exposure limits.

C. Your employer is required to keep records of your exposures and medical examinations. These records must be kept by the employer for at least thirty years.

D. Your employer is required to release your exposure and medical records to you or your representative upon your request.

E. Your employer is required to provide labels and safety data sheets (SDS) for all materials, mixtures or solutions composed of greater than 0.1 percent MC. These materials, mixtures or solutions would be classified and labeled in accordance with WAC 296-901-140.

X. Common Operations and Controls

The following list includes some common operations in which exposure to MC may occur and control methods which may be effective in each case:

Operations	Controls
Use as solvent in paint and varnish removers cold cleaning and ultrasonic cleaning, and as a solvent in furniture stripping.	General dilution ventilation; local; manufacture of aerosols; cold cleaning exhaust ventilation; personal protective equipment; substitution.
Use as solvent in vapor degreasing.	Process enclosure; local exhaust ventilation; chilling coils; substitution.
Use as a secondary refrigerant in air scientific testing.	General dilution ventilation; local conditioning and exhaust ventilation; personal protective equipment.

AMENDATORY SECTION (Amending WSR 01-11-038, filed 5/9/01, effective 9/1/01)

**WAC 296-62-07519 Thiram.** (1) Scope and application. This section applies to occupational exposure to thiram (tetramethylthiuram disulfide), in addition to those requirements listed in (~~WAC 296-62-07515~~) chapter 296-841 WAC, Airborne contaminants. Nothing in this section shall preclude the application of other appropriate standards and regulations to minimize worker exposure to thiram.

(2) Definitions. The following definitions are applicable to this section:

(a) (~~Clean~~) **Clean.** The absence of dirt or materials which may be harmful to a worker's health.

(b) (~~Large seedlings~~) **Large seedlings.** Those seedlings of such size, either by length or breadth, that it is difficult to avoid contact of the thiram treated plant with the mouth or face during planting operations.

(3) General requirements.

(a) Workers should not be allowed to work more than five days in any seven day period with or around the application of thiram or thiram treated seedlings.

(b) Washing and worker hygiene.

(i) Workers (~~shall~~) must wash their hands prior to eating or smoking at the close of work.

(ii) Warm (at least 85°F, 29.4°C) wash water and single use hand wiping materials (~~shall~~) must be provided for washing.

(iii) The warm water and hand wiping materials (~~shall~~) must be at fixed work locations or at the planting unit.

(iv) Where warm water is not available within (~~45~~) fifteen minutes travel time, nonalcoholic based waterless hand cleaner (~~shall~~) must be provided.

(v) Every planter or nursery worker (~~shall~~) must be advised to bathe or shower daily.

(vi) The inside of worker carrying vehicles (~~shall~~) must be washed or vacuumed and wiped down at least weekly during the period of thiram use.

(c) Personal protective measures.

(i) Clothing (~~shall~~) must be worn by workers to reduce skin contact with thiram to the legs, arms and torso.

(ii) For those workers who have thiram skin irritations, exposed areas of the body (~~shall~~) must be protected by a suitable barrier cream.

(iii) Clothing worn by workers (~~shall~~) must be washed or changed at least every other day.

(iv) Only impervious gloves may be worn by workers.

(v) Workers hands should be clean of thiram before placing them into gloves.

(vi) Thiram applicators (~~shall~~) must be provided with and use respiratory protection in accordance with (~~WAC 296-62-074~~) chapter 296-842 WAC, Respirators, disposable coveralls or rubber slickers or other impervious clothing, rubberized boots, head covers and rubberized gloves.

(vii) Nursery workers, other than applicators, who are likely to be exposed to thiram (~~shall~~) must be provided with and use disposable coveralls or rubber slickers or other impervious clothing, impervious footwear and gloves, and head covers in accordance with WAC 296-800-160, unless showers have been provided and are used.

(viii) Eye protection according to WAC 296-800-160, (~~shall~~) must be provided and worn by workers who may be exposed to splashes of thiram during spraying, plug bundling, belt line grading and plugging or other operations.

(ix) Item (viii) of this subdivision need not be complied with where pressurized emergency eye wash fountains are within 10 seconds travel time of the work location. (Approved respirator - See (~~WAC 296-62-074~~) chapter 296-842 WAC, Respirators.)

(x) A dust mask (~~shall~~) must be worn, when planting large seedlings, to avoid mouth and face contact with the thiram treated plant unless equally effective measures or planting practices have been established.

(d) Food handling.

(i) Food snacks, beverages, smoking materials, or any other item which is consumed (~~shall~~) must not be stored or consumed in the packing area of the nursery.

(ii) Worker carrying vehicles (~~shall~~) must have a clean area for carrying lunches.

(iii) The clean area of the vehicle (~~shall~~) must be elevated from the floor and not used to carry other than food or other consumable items.

(iv) The carrying of lunches, food or other consumable items in tree planting bags is prohibited.

(v) Care (~~shall~~) must be taken to (~~insure~~) ensure that worker exposure to thiram spray, including downwind drifts, is minimized or eliminated.

(vi) When bags that contained thiram or thiram treated seedlings are burned, prevent worker exposure to the smoke.

(e) Thiram use and handling.

(i) Thiram treated seedlings (~~shall~~) must be allowed to dry or stabilize prior to packing.

(ii) Seedlings (~~shall~~) must be kept moist during packing and whenever possible during planting operations.

(iii) Floors, where thiram is used, (~~shall~~) must not be dry swept but instead vacuumed, washed or otherwise cleaned at least daily.

(iv) Silica chips used to cover thiram treated seedling plugs (~~shall~~) **must** be removed at the nursery.

(f) Training.

(i) Each worker engaged in operations where exposure to thiram may occur (~~shall~~) **must** be provided training on the hazards of thiram, as well as the necessary precautions for its safe use and handling.

(ii) The training (~~shall~~) **must** include instruction in:

(A) The nature of the health hazard(s) from exposure to thiram including specifically the potential for alcohol intolerance, drug interaction, and skin irritation;

(B) The specific nature of operations which could result in exposure to thiram and the necessary protective steps;

(C) The purpose for, proper use, and limitations of protective devices including respirators and clothing;

(D) The necessity for and requirements of good personal hygiene; and

(E) A review of the thiram rules at the worker's first training and indoctrination, and annually thereafter.

(4) Effective date. This standard (~~shall~~) **must** become effective (~~(30)~~) **thirty** days after being filed with the code reviser.

**AMENDATORY SECTION** (Amending WSR 14-07-086, filed 3/18/14, effective 5/1/14)

**WAC 296-62-07521 Lead.** (1) Scope and application.

(a) This section applies to all occupational exposure to lead, except as provided in subdivision (1)(b).

(b) This section does not apply to the construction industry or to agricultural operations covered by chapter 296-307 WAC.

(2) Definitions as applicable to this part.

(a) (~~("Action level"–)~~) **Action level.** Employee exposure, without regard to the use of respirators, to an airborne concentration of lead of thirty micrograms per cubic meter of air (30  $\mu\text{g}/\text{m}^3$ ) averaged over an eight-hour period.

(b) (~~("Director"–)~~) **Director.** The director of the department of labor and industries.

(c) (~~("Lead"–)~~) **Lead.** Metallic lead, all inorganic lead compounds, and organic lead soaps. Excluded from this definition are all other organic lead compounds.

(3) General requirements.

(a) Employers will assess the hazards of lead in the work place and provide information to the employees about the hazards of the lead exposures to which they may be exposed.

(b) Information provided (~~shall~~) **must** include:

(i) Exposure monitoring (including employee notification);

(ii) Written compliance programs;

(iii) Respiratory protection programs;

(iv) Personnel protective equipment and housekeeping;

(v) Medical surveillance and examinations;

(vi) Training requirements;

(vii) Recordkeeping requirements.

(4) Permissible exposure limit (PEL).

(a) The employer (~~shall assure~~) **must ensure** that no employee is exposed to lead at concentrations greater than fifty micrograms per cubic meter of air (50  $\mu\text{g}/\text{m}^3$ ) averaged over an eight-hour period.

(b) If an employee is exposed to lead for more than eight hours in any work day, the permissible exposure limit, as a time weighted average (TWA) for that day, (~~shall~~) **must** be reduced according to the following formula:

Maximum permissible limit (in  $\mu\text{g}/\text{m}^3$ ) =  $400 \div$  hours worked in the day.

(c) When respirators are used to supplement engineering and work practice controls to comply with the PEL and all the requirements of subsection (7) have been met, employee exposure, for the purpose of determining whether the employer has complied with the PEL, may be considered to be at the level provided by the protection factor of the respirator for those periods the respirator is worn. Those periods may be averaged with exposure levels during periods when respirators are not worn to determine the employee's daily TWA exposure.

(5) Exposure monitoring.

(a) General.

(i) For the purposes of subsection (5), employee exposure is that exposure which would occur if the employee were not using a respirator.

(ii) With the exception of monitoring under subdivision (5)(c), the employer (~~shall~~) **must** collect full shift (for at least seven continuous hours) personal samples including at least one sample for each shift for each job classification in each work area.

(iii) Full shift personal samples (~~shall~~) **must** be representative of the monitored employee's regular, daily exposure to lead.

(b) Initial determination. Each employer who has a workplace or work operation covered by this standard (~~shall~~) **must** determine if any employee may be exposed to lead at or above the action level.

(c) Basis of initial determination.

(i) The employer (~~shall~~) **must** monitor employee exposures and (~~shall~~) **must** base initial determinations on the employee exposure monitoring results and any of the following, relevant considerations:

(A) Any information, observations, or calculations which would indicate employee exposure to lead;

(B) Any previous measurements of airborne lead; and

(C) Any employee complaints of symptoms which may be attributable to exposure to lead.

(ii) Monitoring for the initial determination may be limited to a representative sample of the exposed employees who the employer reasonably believes are exposed to the greatest airborne concentrations of lead in the workplace.

(iii) Measurements of airborne lead made in the preceding twelve months may be used to satisfy the requirement to monitor under item (5)(c)(i) if the sampling and analytical methods used meet the accuracy and confidence levels of subdivision (5)(i) of this section.

(d) Positive initial determination and initial monitoring.

(i) Where a determination conducted under subdivisions (5)(b) and (5)(c) of this section shows the possibility of any employee exposure at or above the action level, the employer (~~shall~~) **must** conduct monitoring which is representative of the exposure for each employee in the workplace who is exposed to lead.

(ii) Measurements of airborne lead made in the preceding twelve months may be used to satisfy this requirement if the sampling and analytical methods used meet the accuracy and confidence levels of subdivision (5)(i) of this section.

(e) Negative initial determination. Where a determination, conducted under subdivisions (5)(b) and (5)(c) of this section is made that no employee is exposed to airborne concentrations of lead at or above the action level, the employer ~~((shall))~~ must make a written record of such determination. The record ~~((shall))~~ must include at least the information specified in subdivision (5)(c) of this section and ~~((shall))~~ must also include the date of determination, location within the worksite, and the name and Social Security number of each employee monitored.

(f) Frequency.

(i) If the initial monitoring reveals employee exposure to be below the action level the measurements need not be repeated except as otherwise provided in subdivision (5)(g) of this section.

(ii) If the initial determination or subsequent monitoring reveals employee exposure to be at or above the action level but below the permissible exposure limit the employer ~~((shall))~~ must repeat monitoring in accordance with this subsection at least every six months. The employer ~~((shall))~~ must continue monitoring at the required frequency until at least two consecutive measurements, taken at least seven days apart, are below the action level at which time the employer may discontinue monitoring for that employee except as otherwise provided in subdivision (5)(g) of this section.

(iii) If the initial monitoring reveals that employee exposure is above the permissible exposure limit the employer ~~((shall))~~ must repeat monitoring quarterly. The employer ~~((shall))~~ must continue monitoring at the required frequency until at least two consecutive measurements, taken at least seven days apart, are below the PEL but at or above the action level at which time the employer ~~((shall))~~ must repeat monitoring for that employee at the frequency specified in item (5)(f)(ii), except as otherwise provided in subdivision (5)(g) of this section.

(g) Additional monitoring. Whenever there has been a production, process, control or personnel change which may result in new or additional exposure to lead, or whenever the employer has any other reason to suspect a change which may result in new or additional exposures to lead, additional monitoring in accordance with this subsection shall be conducted.

(h) Employee notification.

(i) Within five working days after the receipt of monitoring results, the employer ~~((shall))~~ must notify each employee in writing of the results which represent that employee's exposure.

(ii) Whenever the results indicate that the representative employee exposure, without regard to respirators, exceeds the permissible exposure limit, the employer ~~((shall))~~ must include in the written notice a statement that the permissible exposure limit was exceeded and a description of the corrective action taken or to be taken to reduce exposure to or below the permissible exposure limit.

(i) Reserved.

(j) Accuracy of measurement. The employer ~~((shall))~~ must use a method of monitoring and analysis which has an accuracy (to a confidence level of ninety-five percent) of not less than plus or minus twenty percent for airborne concentrations of lead equal to or greater than 30 µg/m<sup>3</sup>.

(6) Methods of compliance.

(a) Engineering and work practice controls.

(i) Where any employee is exposed to lead above the permissible exposure limit for more than thirty days per year, the employer ~~((shall))~~ must implement engineering and work practice controls (including administrative controls) to reduce and maintain employee exposure to lead in accordance with the implementation schedule in Table I below, except to the extent that the employer can demonstrate that such controls are not feasible. Wherever the engineering and work practice controls which can be instituted are not sufficient to reduce employee exposure to or below the permissible exposure limit, the employer ~~((shall))~~ must nonetheless use them to reduce exposures to the lowest feasible level and ~~((shall))~~ must supplement them by the use of respiratory protection which complies with the requirements of subsection (7) of this section.

(ii) Where any employee is exposed to lead above the permissible exposure limit, but for thirty days or less per year, the employer ~~((shall))~~ must implement engineering controls to reduce exposures to 200 µg/m<sup>3</sup>, but thereafter may implement any combination of engineering, work practice (including administrative controls), and respiratory controls to reduce and maintain employee exposure to lead to or below 50 µg/m<sup>3</sup>.

TABLE I

Industry	Compliance dates: <sup>1</sup> (50 µg/m <sup>3</sup> )
Lead chemicals, secondary copper smelting.	July 19, 1996
Nonferrous foundries . . . . .	July 19, 1996. <sup>2</sup>
Brass and bronze ingot manufacture.	6 years. <sup>3</sup>

<sup>1</sup> Calculated by counting from the date the stay on implementation of subsection (6)(a) was lifted by the U.S. Court of Appeals for the District of Columbia, the number of years specified in the 1978 lead standard and subsequent amendments for compliance with the PEL of 50 µg/m<sup>3</sup> for exposure to airborne concentrations of lead levels for the particular industry.

<sup>2</sup> Large nonferrous foundries (20 or more employees) are required to achieve the PEL of 50 µg/m<sup>3</sup> by means of engineering and work practice controls. Small nonferrous foundries (fewer than 20 employees) are required to achieve an 8-hour TWA of 75 µg/m<sup>3</sup> by such controls.

<sup>3</sup> Expressed as the number of years from the date on which the Court lifts the stay on the implementation of subsection (6)(a) for this industry for employers to achieve a lead in air concentration of 75 µg/m<sup>3</sup>. Compliance with subsection (6) in this industry is determined by a compliance directive that incorporates elements from the settlement agreement between OSHA and representatives of the industry.

(b) Respiratory protection. Where engineering and work practice controls do not reduce employee exposure to or below the 50 µg/m<sup>3</sup> permissible exposure limit, the employer

((shall)) must supplement these controls with respirators in accordance with subsection (7).

(c) Compliance program.

(i) Each employer ((shall)) must establish and implement a written compliance program to reduce exposures to or below the permissible exposure limit, and interim levels if applicable, solely by means of engineering and work practice controls in accordance with the implementation schedule in subdivision (6)(a).

(ii) Written plans for these compliance programs ((shall)) must include at least the following:

(A) A description of each operation in which lead is emitted; e.g., machinery used, material processed, controls in place, crew size, employee job responsibilities, operating procedures and maintenance practices;

(B) A description of the specific means that will be employed to achieve compliance, including engineering plans and studies used to determine methods selected for controlling exposure to lead;

(C) A report of the technology considered in meeting the permissible exposure limit;

(D) Air monitoring data which documents the source of lead emissions;

(E) A detailed schedule for implementation of the program, including documentation such as copies of purchase orders for equipment, construction contracts, etc.;

(F) A work practice program which includes items required under subsections (8), (9) and (10) of this regulation;

(G) An administrative control schedule required by subdivision (6)(f), if applicable; and

(H) Other relevant information.

(iii) Written programs ((shall)) must be submitted upon request to the director, and ((shall)) must be available at the worksite for examination and copying by the director, any affected employee or authorized employee representatives.

(iv) Written programs ((shall)) must be revised and updated at least every six months to reflect the current status of the program.

(d) Mechanical ventilation.

(i) When ventilation is used to control exposure, measurements which demonstrate the effectiveness of the system in controlling exposure, such as capture velocity, duct velocity, or static pressure ((shall)) must be made at least every three months. Measurements of the system's effectiveness in controlling exposure ((shall)) must be made within five days of any change in production, process, or control which might result in a change in employee exposure to lead.

(ii) Recirculation of air. If air from exhaust ventilation is recirculated into the workplace, the employer ((shall assure)) must ensure that (A) the system has a high efficiency filter with reliable back-up filter; and (B) controls to monitor the concentration of lead in the return air and to bypass the recirculation system automatically if it fails are installed, operating, and maintained.

(e) Administrative controls. If administrative controls are used as a means of reducing employees TWA exposure to lead, the employer ((shall)) must establish and implement a job rotation schedule which includes:

(i) Name or identification number of each affected employee;

(ii) Duration and exposure levels at each job or work station where each affected employee is located; and

(iii) Any other information which may be useful in assessing the reliability of administrative controls to reduce exposure to lead.

(7) Respiratory protection.

(a) General. For employees who use respirators required by this section, the employer must provide each employee an appropriate respirator that complies with the requirements of this subsection. Respirators must be used during:

(i) Period necessary to install or implement engineering or work-practice controls;

(ii) Work operations for which engineering and work-practice controls are not sufficient to reduce exposures to or below the permissible exposure limit;

(iii) Periods when an employee requests a respirator.

(b) Respirator program.

(i) The employer must develop, implement and maintain a respiratory protection program as required by chapter 296-842 WAC, Respirators, which covers each employee required by this chapter to use a respirator.

(ii) If an employee has breathing difficulty during fit testing or respirator use, the employer must provide the employee with a medical examination as required by subsection (11)(c)(ii)(C) of this section to determine whether or not the employee can use a respirator while performing the required duty.

(c) Respirator selection. The employer must:

(i) Select and provide to employees appropriate respirators according to this section and WAC 296-842-13005, found in the respirator rule.

(ii) Provide employees with a powered air-purifying respirator (PAPR) instead of a negative-pressure respirator selected when an employee chooses to use a PAPR and it provides adequate protection to the employee.

(iii) Provide employees with full-facepiece respirators instead of half-facepiece respirators for protection against lead aerosols that cause eye or skin irritation at the use concentration.

(iv) Provide HEPA filters or N-, R-, or P-100 filters for powered air-purifying respirators (PAPRs) and negative-pressure air-purifying respirators.

(8) Protective work clothing and equipment.

(a) Provision and use. If an employee is exposed to lead above the PEL, without regard to the use of respirators or where the possibility of skin or eye irritation exists, the employer ((shall)) must provide at no cost to the employee and ((assure)) ensure that the employee uses appropriate protective work clothing and equipment such as, but not limited to:

(i) Coveralls or similar full-body work clothing;

(ii) Gloves, hats, and shoes or disposable shoe coverlets; and

(iii) Face shields, vented goggles, or other appropriate protective equipment which complies with WAC 296-800-160.

## (b) Cleaning and replacement.

(i) The employer ((~~shall~~)) must provide the protective clothing required in subdivision (8)(a) of this section in a clean and dry condition at least weekly, and daily to employees whose exposure levels without regard to a respirator are over 200 µg/m<sup>3</sup> of lead as an eight-hour TWA.

(ii) The employer ((~~shall~~)) must provide for the cleaning, laundering, or disposal of protective clothing and equipment required by subdivision (8)(a) of this section.

(iii) The employer ((~~shall~~)) must repair or replace required protective clothing and equipment as needed to maintain their effectiveness.

(iv) The employer ((~~shall-assure~~)) must ensure that all protective clothing is removed at the completion of a work shift only in change rooms provided for that purpose as prescribed in subdivision (10)(b) of this section.

(v) The employer ((~~shall-assure~~)) must ensure that contaminated protective clothing which is to be cleaned, laundered, or disposed of, is placed in a closed container in the change-room which prevents dispersion of lead outside the container.

(vi) The employer ((~~shall~~)) must inform in writing any person who cleans or launders protective clothing or equipment of the potentially harmful effects of exposure to lead.

(vii) The employer ((~~shall~~)) must ensure that the containers of contaminated protective clothing and equipment required by subdivision (8)(b)(v) are labeled as follows:

DANGER: CLOTHING AND EQUIPMENT CONTAMINATED WITH LEAD. MAY DAMAGE FERTILITY OR THE UNBORN CHILD. CAUSES DAMAGE TO THE CENTRAL NERVOUS SYSTEM. DO NOT EAT, DRINK OR SMOKE WHEN HANDLING. DO NOT REMOVE DUST BY BLOWING OR SHAKING. DISPOSE OF LEAD CONTAMINATED WASH WATER IN ACCORDANCE WITH APPLICABLE LOCAL, STATE, OR FEDERAL REGULATIONS.

(viii) ((~~Prior to June 1, 2015, employers may include the following information on bags or containers of contaminated protective clothing and equipment in lieu of the labeling requirements in (b)(vii) of this subsection:~~

CAUTION: CLOTHING CONTAMINATED WITH LEAD. DO NOT REMOVE DUST BY BLOWING OR SHAKING. DISPOSE OF LEAD CONTAMINATED WASH WATER IN ACCORDANCE WITH APPLICABLE LOCAL, STATE, OR FEDERAL REGULATIONS.

(ix)) The employer ((~~shall~~)) must prohibit the removal of lead from protective clothing or equipment by blowing, shaking, or any other means which disperses lead into the air.

## (9) Housekeeping.

(a) Surfaces. All surfaces ((~~shall~~)) must be maintained as free as practicable of accumulations of lead.

## (b) Cleaning floors.

(i) Floors and other surfaces where lead accumulates may not be cleaned by the use of compressed air.

(ii) Shoveling, dry or wet sweeping, and brushing may be used only where vacuuming or other equally effective methods have been tried and found not to be effective.

(c) Vacuuming. Where vacuuming methods are selected, the vacuums ((~~shall~~)) must be used and emptied in a manner which minimizes the reentry of lead into the workplace.

## (10) Hygiene facilities and practices.

(a) The employer ((~~shall-assure~~)) must ensure that in areas where employees are exposed to lead above the PEL, without regard to the use of respirators, food or beverage is not present or consumed, tobacco products are not present or used, and cosmetics are not applied, except in change rooms, lunchrooms, and showers required under subdivision (10)(b) through (10)(d) of this section.

## (b) Change rooms.

(i) The employer ((~~shall~~)) must provide clean change rooms for employees who work in areas where their airborne exposure to lead is above the PEL, without regard to the use of respirators.

(ii) The employer ((~~shall-assure~~)) must ensure that change rooms are equipped with separate storage facilities for protective work clothing and equipment and for street clothes which prevent cross-contamination.

## (c) Showers.

(i) The employer ((~~shall-assure~~)) must ensure that employees who work in areas where their airborne exposure to lead is above the PEL, without regard to the use of respirators, shower at the end of the work shift.

(ii) The employer ((~~shall~~)) must provide shower facilities in accordance with WAC 296-800-230.

(iii) The employer ((~~shall-assure~~)) must ensure that employees who are required to shower pursuant to item (10)(c)(i) do not leave the workplace wearing any clothing or equipment worn during the work shift.

## (d) Lunchrooms.

(i) The employer ((~~shall~~)) must provide lunchroom facilities for employees who work in areas where their airborne exposure to lead is above the PEL, without regard to the use of respirators.

(ii) The employer ((~~shall-assure~~)) must ensure that lunchroom facilities have a temperature controlled, positive pressure, filtered air supply, and are readily accessible to employees.

(iii) The employer ((~~shall-assure~~)) must ensure that employees who work in areas where their airborne exposure to lead is above the PEL without regard to the use of a respirator wash their hands and face prior to eating, drinking, smoking or applying cosmetics.

(iv) The employer ((~~shall-assure~~)) must ensure that employees do not enter lunchroom facilities with protective work clothing or equipment unless surface lead dust has been removed by vacuuming, downdraft booth, or other cleaning method.

(e) Lavatories. The employer ((~~shall~~)) must provide an adequate number of lavatory facilities which comply with WAC 296-800-230.

## (11) Medical surveillance.

## (a) General.

(i) The employer ((~~shall~~)) must institute a medical surveillance program for all employees who are or may be exposed at or above the action level for more than thirty days per year.

(ii) The employer ((~~shall-assure~~)) must ensure that all medical examinations and procedures are performed by or under the supervision of a licensed physician.

(iii) The employer ~~((shall))~~ must provide the required medical surveillance including multiple physician review under item (11)(c)(iii) without cost to employees and at a reasonable time and place.

(b) Biological monitoring.

(i) Blood lead and ZPP level sampling and analysis. The employer ~~((shall))~~ must make available biological monitoring in the form of blood sampling and analysis for lead and zinc protoporphyrin levels to each employee covered under item (11)(a)(i) of this section on the following schedule:

(A) At least every six months to each employee covered under item (11)(a)(i) of this section;

(B) At least every two months for each employee whose last blood sampling and analysis indicated a blood lead level at or above 40 µg/100 g of whole blood. This frequency ~~((shall))~~ must continue until two consecutive blood samples and analyses indicate a blood lead level below 40 µg/100 g of whole blood; and

(C) At least monthly during the removal period of each employee removed from exposure to lead due to an elevated blood lead level.

(ii) Follow-up blood sampling tests. Whenever the results of a blood lead level test indicate that an employee's blood lead level is at or above the numerical criterion for medical removal under item (12)(a)(i)(A), the employer ~~((shall))~~ must provide a second (follow-up) blood sampling test within two weeks after the employer receives the results of the first blood sampling test.

(iii) Accuracy of blood lead level sampling and analysis. Blood lead level sampling and analysis provided pursuant to this section ~~((shall))~~ must have an accuracy (to a confidence level of ninety-five percent) within plus or minus fifteen percent or 6 µg/100 ml, whichever is greater, and ~~((shall))~~ must be conducted by a laboratory licensed by the Center for Disease Control (CDC), United States Department of Health, Education and Welfare or which has received a satisfactory grade in blood lead proficiency testing from CDC in the prior twelve months.

(iv) Employee notification. Within five working days after the receipt of biological monitoring results, the employer ~~((shall))~~ must notify in writing each employee whose blood lead level is at or above 40 µg/100g: (A) of that employee's blood lead level and (B) that the standard requires temporary medical removal with medical removal protection benefits when an employee's blood lead level exceeds the numerical criterion for medical removal under item (12)(a)(i) of this section.

(c) Medical examinations and consultations.

(i) Frequency. The employer ~~((shall))~~ must make available medical examinations and consultations to each employee covered under item (11)(a)(i) of this section on the following schedule:

(A) At least annually for each employee for whom a blood sampling test conducted at any time during the preceding twelve months indicated a blood lead level at or above 40 µg/100 g;

(B) Prior to assignment for each employee being assigned for the first time to an area in which airborne concentrations of lead are at or above the action level;

(C) As soon as possible, upon notification by an employee either that the employee has developed signs or symptoms commonly associated with lead intoxication, that the employee desires medical advice concerning the effects of current or past exposure to lead on the employee's ability to procreate a healthy child, or that the employee has demonstrated difficulty in breathing during a respirator fitting test or during use; and

(D) As medically appropriate for each employee either removed from exposure to lead due to a risk of sustaining material impairment to health, or otherwise limited pursuant to a final medical determination.

(ii) Content. Medical examinations made available pursuant to subitems (11)(c)(i)(A) through (B) of this section ~~((shall))~~ must include the following elements:

(A) A detailed work history and a medical history, with particular attention to past lead exposure (occupational and nonoccupational), personal habits (smoking, hygiene), and past gastrointestinal, hematologic, renal, cardiovascular, reproductive and neurological problems;

(B) A thorough physical examination, with particular attention to teeth, gums, hematologic, gastrointestinal, renal, cardiovascular, and neurological systems. Pulmonary status should be evaluated if respiratory protection will be used;

(C) A blood pressure measurement;

(D) A blood sample and analysis which determines:

(I) Blood lead level;

(II) Hemoglobin and hematocrit determinations, red cell indices, and examination of peripheral smear morphology;

(III) Zinc protoporphyrin;

(IV) Blood urea nitrogen; and

(V) Serum creatinine;

(E) A routine urinalysis with microscopic examination; and

(F) Any laboratory or other test which the examining physician deems necessary by sound medical practice.

The content of medical examinations made available pursuant to subitems (11)(c)(i)(C) through (D) of this section ~~((shall))~~ must be determined by an examining physician and, if requested by an employee, shall include pregnancy testing or laboratory evaluation of male fertility.

(iii) Multiple physician review mechanism.

(A) If the employer selects the initial physician who conducts any medical examination or consultation provided to an employee under this section, the employee may designate a second physician:

(I) To review any findings, determinations or recommendations of the initial physician; and

(II) To conduct such examinations, consultations, and laboratory tests as the second physician deems necessary to facilitate this review.

(B) The employer ~~((shall))~~ must promptly notify an employee of the right to seek a second medical opinion after each occasion that an initial physician conducts a medical examination or consultation pursuant to this section. The employer may condition its participation in, and payment for, the multiple physician review mechanism upon the employee doing the following within fifteen days after receipt of the foregoing notification, or receipt of the initial physician's written opinion, whichever is later:

(I) The employee informing the employer that ~~((he or she))~~ they intend~~((s))~~ to seek a second medical opinion, and

(II) The employee initiating steps to make an appointment with a second physician.

(C) If the findings, determinations or recommendations of the second physician differ from those of the initial physician, then the employer and the employee ~~((shall assure))~~ must ensure that efforts are made for the two physicians to resolve any disagreement.

(D) If the two physicians have been unable to quickly resolve their disagreement, then the employer and the employee through their respective physicians ~~((shall))~~ must designate a third physician:

(I) To review any findings, determinations or recommendations of the prior physicians; and

(II) To conduct such examinations, consultations, laboratory tests and discussions with the prior physicians as the third physician deems necessary to resolve the disagreement of the prior physicians.

(E) The employer ~~((shall))~~ must act consistent with the findings, determinations and recommendations of the third physician, unless the employer and the employee reach an agreement which is otherwise consistent with the recommendations of at least one of the three physicians.

(iv) Information provided to examining and consulting physicians.

(A) The employer ~~((shall))~~ must provide an initial physician conducting a medical examination or consultation under this section with the following information:

(I) A copy of this regulation for lead including all appendices;

(II) A description of the affected employee's duties as they relate to the employee's exposure;

(III) The employee's exposure level or anticipated exposure level to lead and to any other toxic substance (if applicable);

(IV) A description of any personal protective equipment used or to be used;

(V) Prior blood lead determinations; and

(VI) All prior written medical opinions concerning the employee in the employer's possession or control.

(B) The employer ~~((shall))~~ must provide the foregoing information to a second or third physician conducting a medical examination or consultation under this section upon request either by the second or third physician, or by the employee.

(v) Written medical opinions.

(A) The employer ~~((shall))~~ must obtain and furnish the employee with a copy of a written medical opinion from each examining or consulting physician which contains the following information:

(I) The physician's opinion as to whether the employee has any detected medical condition which would place the employee at increased risk of material impairment of the employee's health from exposure to lead;

(II) Any recommended special protective measures to be provided to the employee, or limitations to be placed upon the employee's exposure to lead;

(III) Any recommended limitation upon the employee's use of respirators, including a determination of whether the

employee can wear a powered air purifying respirator if a physician determines that the employee cannot wear a negative pressure respirator; and

(IV) The results of the blood lead determinations.

(B) The employer ~~((shall))~~ must instruct each examining and consulting physician to:

(I) Not reveal either in the written opinion, or in any other means of communication with the employer, findings, including laboratory results, or diagnoses unrelated to an employee's occupational exposure to lead; and

(II) Advise the employee of any medical condition, occupational or nonoccupational, which dictates further medical examination or treatment.

(vi) Alternate physician determination mechanisms. The employer and an employee or authorized employee representative may agree upon the use of any expeditious alternate physician determination mechanism in lieu of the multiple physician review mechanism provided by this subsection so long as the alternate mechanism otherwise satisfies the requirements contained in this subsection.

(d) Chelation.

(i) The employer ~~((shall assure))~~ must ensure that any person whom he retains, employs, supervises or controls does not engage in prophylactic chelation of any employee at any time.

(ii) If therapeutic or diagnostic chelation is to be performed by any person in item (11)(d)(i), the employer ~~((shall assure))~~ must ensure that it be done under the supervision of a licensed physician in a clinical setting with thorough and appropriate medical monitoring and that the employee is notified in writing prior to its occurrence.

(12) Medical removal protection.

(a) Temporary medical removal and return of an employee.

(i) Temporary removal due to elevated blood lead levels.

(A) The employer ~~((shall))~~ must remove an employee from work having an exposure to lead at or above the action level on each occasion that a periodic and a follow-up blood sampling test conducted pursuant to this section indicate that the employee's blood lead level is at or above 60 µg/100g of whole blood; and

(B) The employer ~~((shall))~~ must remove an employee from work having an exposure to lead at or above the action level on each occasion that the average of the last three blood sampling tests conducted pursuant to this section (or the average of all blood sampling tests conducted over the previous six months, whichever is longer) indicates that the employee's blood lead level is at or above 50 µg/100g of whole blood; provided, however, that an employee need not be removed if the last blood sampling test indicates a blood lead level below 40 µg/100g of whole blood.

(ii) Temporary removal due to a final medical determination.

(A) The employer ~~((shall))~~ must remove an employee from work having an exposure to lead at or above the action level on each occasion that a final medical determination results in a medical finding, determination, or opinion that the employee has a detected medical condition which places the employee at increased risk of material impairment to health from exposure to lead.

(B) For the purposes of this section, the phrase "final medical determination" shall mean the outcome of the multiple physician review mechanism or alternate medical determination mechanism used pursuant to the medical surveillance provisions of this section.

(C) Where a final medical determination results in any recommended special protective measures for an employee, or limitations on an employee's exposure to lead, the employer ~~((shall))~~ must implement and act consistent with the recommendation.

(iii) Return of the employee to former job status.

(A) The employer ~~((shall))~~ must return an employee to ~~((his or her))~~ their former job status:

(I) For an employee removed due to a blood lead level at or above 60 µg/100g, or due to an average blood lead level at or above 50 µg/100g, when two consecutive blood sampling tests indicate that the employee's blood lead level is below 40 µg/100g of whole blood;

(II) For an employee removed due to a final medical determination, when a subsequent final medical determination results in a medical finding, determination, or opinion that the employee no longer has a detected medical condition which places the employee at increased risk of material impairment to health from exposure to lead.

(B) For the purposes of this section, the requirement that an employer return an employee to ~~((his or her))~~ their former job status is not intended to expand upon or restrict any rights an employee has or would have had, absent temporary medical removal, to a specific job classification or position under the terms of a collective bargaining agreement.

(iv) Removal of other employee special protective measure or limitations. The employer ~~((shall))~~ must remove any limitations placed on an employee or end any special protective measures provided to an employee pursuant to a final medical determination when a subsequent final medical determination indicates that the limitations or special protective measures are no longer necessary.

(v) Employer options pending a final medical determination. Where the multiple physician review mechanism, or alternate medical determination mechanism used pursuant to the medical surveillance provisions of this section, has not yet resulted in a final medical determination with respect to an employee, the employer ~~((shall))~~ must act as follows:

(A) Removal. The employer may remove the employee from exposure to lead, provide special protective measures to the employee, or place limitations upon the employee, consistent with the medical findings, determinations, or recommendations of any of the physicians who have reviewed the employee's health status.

(B) Return. The employer may return the employee to ~~((his or her))~~ their former job status, end any special protective measures provided to the employee, and remove any limitations placed upon the employee, consistent with the medical findings, determinations, or recommendations of any of the physicians who have reviewed the employee's health status, with two exceptions. If:

(I) The initial removal, special protection, or limitation of the employee resulted from a final medical determination which differed from the findings, determinations, or recommendations of the initial physician; or

(II) The employee has been on removal status for the preceding eighteen months due to an elevated blood lead level, then the employer ~~((shall))~~ must await a final medical determination.

(b) Medical removal protection benefits.

(i) Provision of medical removal protection benefits. The employer ~~((shall))~~ must provide to an employee up to eighteen months of medical removal protection benefits on each occasion that an employee is removed from exposure to lead or otherwise limited pursuant to this section.

(ii) Definition of medical removal protection benefits. For the purposes of this section, the requirement that an employer provide medical removal protection benefits means that the employer ~~((shall))~~ must maintain the earnings, seniority and other employment rights and benefits of an employee as though the employee had not been removed from normal exposure to lead or otherwise limited.

(iii) Follow-up medical surveillance during the period of employee removal or limitation. During the period of time that an employee is removed from normal exposure to lead or otherwise limited, the employer may condition the provision of medical removal protection benefits upon the employee's participation in follow-up medical surveillance made available pursuant to this section.

(iv) Workers' compensation claims. If a removed employee files a claim for workers' compensation payments for a lead-related disability, then the employer ~~((shall))~~ must continue to provide medical removal protection benefits pending disposition of the claim. To the extent that an award is made to the employee for earnings lost during the period of removal, the employer's medical removal protection obligation ~~((shall))~~ must be reduced by such amount. The employer ~~((shall))~~ must not receive ~~((no))~~ credit for workers' compensation payments received by the employee for treatment related expenses.

(v) Other credits. The employer's obligation to provide medical removal protection benefits to a removed employee shall be reduced to the extent that the employee receives compensation for earnings lost during the period of removal either from a publicly or employer-funded compensation program, or receives income from employment with another employer made possible by virtue of the employee's removal.

(vi) Employees whose blood lead levels do not adequately decline within eighteen months of removal. The employer ~~((shall))~~ must take the following measures with respect to any employee removed from exposure to lead due to an elevated blood lead level whose blood lead level has not declined within the past eighteen months of removal so that the employee has been returned to ~~((his or her))~~ their former job status:

(A) The employer ~~((shall))~~ must make available to the employee a medical examination pursuant to this section to obtain a final medical determination with respect to the employee;

(B) The employer ~~((shall assure))~~ must ensure that the final medical determination obtained indicates whether or not the employee may be returned to ~~((his or her))~~ their former job status, and if not, what steps should be taken to protect the employee's health;

(C) Where the final medical determination has not yet been obtained, or once obtained indicates that the employee may not yet be returned to ~~((his or her))~~ their former job status, the employer ~~((shall))~~ must continue to provide medical removal protection benefits to the employee until either the employee is returned to former job status, or a final medical determination is made that the employee is incapable of ever safely returning to ~~((his or her))~~ their former job status;

(D) Where the employer acts pursuant to a final medical determination which permits the return of the employee to ~~((his or her))~~ their former job status despite what would otherwise be an unacceptable blood lead level, later questions concerning removing the employee again ~~((shall))~~ must be decided by a final medical determination. The employer need not automatically remove such an employee pursuant to the blood lead level removal criteria provided by this section.

(vii) Voluntary removal or restriction of an employee. Where an employer, although not required by this section to do so, removes an employee from exposure to lead or otherwise places limitations on an employee due to the effects of lead exposure on the employee's medical condition, the employer ~~((shall))~~ must provide medical removal protection benefits to the employee equal to that required by item (12)(b)(i) of this section.

(13) Employee information and training.

(a) Training program.

(i) Each employer who has a workplace in which there is a potential exposure to airborne lead at any level ~~((shall))~~ must inform employees of the content of Appendices A and B of this regulation.

(ii) The employer ~~((shall))~~ must train each employee who is subject to exposure to lead at or above the action level or for whom the possibility of skin or eye irritation exists, in accordance with the requirements of this section. The employer ~~((shall))~~ must institute a training program for and ~~((assure))~~ ensure the participation of all employees.

(iii) The employer ~~((shall))~~ must provide initial training by one hundred eighty days from the effective date for those employees covered by item (13)(a)(ii) on the standard's effective date and prior to the time of initial job assignment for those employees subsequently covered by this subsection.

(iv) The training program ~~((shall))~~ must be repeated at least annually for each employee.

(v) The employer ~~((shall-assure))~~ must ensure that each employee is informed of the following:

(A) The content of this standard and its appendices;

(B) The specific nature of the operations which could result in exposure to lead above the action level;

(C) The purpose, proper use, limitations, and other training requirements for respiratory protection as required by chapter ~~((296-62 WAC, Part E))~~ 296-842 WAC;

(D) The purpose and a description of the medical surveillance program, and the medical removal protection program including information concerning the adverse health effects associated with excessive exposure to lead (with particular attention to the adverse reproductive effects on both males and females);

(E) The engineering controls and work practices associated with the employee's job assignment;

(F) The contents of any compliance plan in effect; and

(G) Instructions to employees that chelating agents should not routinely be used to remove lead from their bodies and should not be used at all except under the direction of a licensed physician.

(b) Access to information and training materials.

(i) The employer ~~((shall))~~ must make readily available to all affected employees a copy of this standard and its appendices.

(ii) The employer ~~((shall))~~ must provide, upon request, all materials relating to the employee information and training program to the director.

(iii) In addition to the information required by item (13)(a)(v), the employer ~~((shall))~~ must include as part of the training program, and ~~((shall))~~ must distribute to employees, any materials pertaining to the Occupational Safety and Health Act, the regulations issued pursuant to the act, and this lead standard, which are made available to the employer by the director.

(14) Communication of hazards.

(a) Hazard communication - General.

(i) Chemical manufacturers, importers, distributors and employers ~~((shall))~~ must comply with all requirements of the Hazard Communication Standard (HCS), WAC 296-901-140 for lead.

(ii) In classifying the hazards of lead at least the following hazards are to be addressed: Reproductive/developmental toxicity; central nervous system effects; kidney effects; blood effects; and acute toxicity effects.

(iii) Employers ~~((shall))~~ must include lead in the hazard communication program established to comply with the HCS, WAC 296-901-140. Employers ~~((shall))~~ must ensure that each employee has access to labels on containers of lead and to safety data sheets, and is trained in accordance with the requirements of HCS and subsection (13) of this section.

(b) Signs.

(i) The employer ~~((shall))~~ must post the following warning signs in each work area where the PEL is exceeded:

DANGER  
LEAD  
MAY DAMAGE FERTILITY OR THE UNBORN CHILD  
CAUSES DAMAGE TO THE CENTRAL NERVOUS SYSTEM  
DO NOT EAT, DRINK OR SMOKE IN THIS AREA

(ii) The employer ~~((shall))~~ must ensure that no statement appears on or near any sign required by this section which contradicts or detracts from the meaning of the required sign.

(iii) The employer ~~((shall))~~ must ensure that signs required by this subsection are illuminated and cleaned as necessary so that the legend is readily visible.

(iv) The employer may use signs required by other statutes, regulations or ordinances in addition to, or in combination with, signs required by this subsection.

~~((v)) Prior to June 1, 2016, employers may use the following legend in lieu of that specified in (b)(i) of this subsection:~~

WARNING  
LEAD WORK AREA  
POISON  
NO SMOKING OR EATING))

## (15) Recordkeeping.

## (a) Exposure monitoring.

(i) The employer ((~~shall~~) must) establish and maintain an accurate record of all monitoring required in subsection (5) of this section.

(ii) This record ((~~shall~~) must) include:

(A) The date(s), number, duration, location and results of each of the samples taken, including a description of the sampling procedure used to determine representative employee exposure where applicable;

(B) A description of the sampling and analytical methods used and evidence of their accuracy;

(C) The type of respiratory protective devices worn, if any;

(D) Name, Social Security number, and job classification of the employee monitored and of all other employees whose exposure the measurement is intended to represent; and

(E) The environmental variables that could affect the measurement of employee exposure.

(iii) The employer ((~~shall~~) must) maintain these monitoring records for at least forty years or for the duration of employment plus twenty years, whichever is longer.

## (b) Medical surveillance.

(i) The employer ((~~shall~~) must) establish and maintain an accurate record for each employee subject to medical surveillance as required by subsection (11) of this section.

(ii) This record ((~~shall~~) must) include:

(A) The name, Social Security number, and description of the duties of the employee;

(B) A copy of the physician's written opinions;

(C) Results of any airborne exposure monitoring done for that employee and the representative exposure levels supplied to the physician; and

(D) Any employee medical complaints related to exposure to lead.

(iii) The employer ((~~shall~~) must) keep, or ((~~assure~~) ensure) that the examining physician keeps, the following medical records:

(A) A copy of the medical examination results including medical and work history required under subsection (11) of this section;

(B) A description of the laboratory procedures and a copy of any standards or guidelines used to interpret the test results or references to that information; and

(C) A copy of the results of biological monitoring.

(iv) The employer ((~~shall~~) must) maintain or ((~~assure~~) ensure) that the physician maintains those medical records for at least forty years, or for the duration of employment plus twenty years, whichever is longer.

## (c) Medical removals.

(i) The employer ((~~shall~~) must) establish and maintain an accurate record for each employee removed from current exposure to lead pursuant to subsection (12) of this section.

(ii) Each record ((~~shall~~) must) include:

(A) The name and Social Security number of the employee;

(B) The date on each occasion that the employee was removed from current exposure to lead as well as the corre-

sponding date on which the employee was returned to his or her former job status;

(C) A brief explanation of how each removal was or is being accomplished; and

(D) A statement with respect to each removal indicating whether or not the reason for the removal was an elevated blood lead level.

(iii) The employer ((~~shall~~) must) maintain each medical removal record for at least the duration of an employee's employment.

## (d) Availability.

(i) The employer ((~~shall~~) must) make available upon request all records required to be maintained by subsection (15) of this section to the director for examination and copying.

(ii) Environmental monitoring, medical removal, and medical records required by this subsection ((~~shall~~) must) be provided upon request to employees, designated representatives, and the assistant director in accordance with chapter 296-802 WAC. Medical removal records ((~~shall~~) must) be provided in the same manner as environmental monitoring records.

(iii) Upon request, the employer ((~~shall~~) must) make an employee's medical records required to be maintained by this section available to the affected employee or former employee or to a physician or other individual designated by such affected employee or former employees for examination and copying.

## (e) Transfer of records.

The employer ((~~shall~~) must) comply with any additional requirements involving transfer of records set forth in WAC 296-802-60005.

## (16) Observation of monitoring.

(a) Employee observation. The employer ((~~shall~~) must) provide affected employees or their designated representatives an opportunity to observe any monitoring of employee exposure to lead conducted pursuant to subsection (5) of this section.

## (b) Observation procedures.

(i) Whenever observation of the monitoring of employee exposure to lead requires entry into an area where the use of respirators, protective clothing or equipment is required, the employer ((~~shall~~) must) provide the observer with and ((~~assure~~) ensure) the use of such respirators, clothing and such equipment, and ((~~shall~~) must) require the observer to comply with all other applicable safety and health procedures.

(ii) Without interfering with the monitoring, observers ((~~shall~~) must) be entitled to:

(A) Receive an explanation of the measurement procedures;

(B) Observe all steps related to the monitoring of lead performed at the place of exposure; and

(C) Record the results obtained or receive copies of the results when returned by the laboratory.

(17) Appendices. The information contained in the appendices to this section is not intended by itself, to create any additional obligations not otherwise imposed by this standard nor detract from any existing obligation.

(a) Appendix A. Substance Data Sheet for Occupational Exposure to Lead.

(i) Substance identification.

(A) Substance. Pure lead (Pb) is a heavy metal at room temperature and pressure and is a basic chemical element. It can combine with various other substances to form numerous lead compounds.

(B) Compounds covered by the standard. The word "lead" when used in this standard means elemental lead, all inorganic lead compounds (except those which are not biologically available due to either solubility or specific chemical interaction), and a class of organic lead compounds called lead soaps. This standard does not apply to other organic lead compounds.

(C) Uses. Exposure to lead occurs in at least one hundred twenty different occupations, including primary and secondary lead smelting, lead storage battery manufacturing, lead pigment manufacturing and use, solder manufacturing and use, shipbuilding and ship repairing, auto manufacturing, and printing.

(D) Permissible exposure. The Permissible Exposure Limit (PEL) set by the standard is 50 micrograms of lead per cubic meter of air (50  $\mu\text{g}/\text{m}^3$ ), averaged over an eight-hour work day.

(E) Action level. The standard establishes an action level of 30 micrograms per cubic meter of air (30  $\mu\text{g}/\text{m}^3$ ) time weighted average, based on an eight-hour work day. The action level initiates several requirements of the standard, such as exposure monitoring, medical surveillance, and training and education.

(ii) Health hazard data.

(A) Ways in which lead enters your body.

(I) When absorbed into your body in certain doses lead is a toxic substance. The object of the lead standard is to prevent absorption of harmful quantities of lead. The standard is intended to protect you not only from the immediate toxic effects of lead, but also from the serious toxic effects that may not become apparent until years of exposure have passed.

(II) Lead can be absorbed into your body by inhalation (breathing) and ingestion (eating). Lead (except for certain organic lead compounds not covered by the standard, such as tetraethyl lead) is not absorbed through your skin. When lead is scattered in the air as a dust, fume or mist, it can be inhaled and absorbed through your lungs and upper respiratory tract. Inhalation of airborne lead is generally the most important source of occupational lead absorption. You can also absorb lead through your digestive system if lead gets into your mouth and is swallowed. If you handle food, cigarettes, chewing tobacco, or make-up which have lead on them or handle them with hands contaminated with lead, this will contribute to ingestion.

(III) A significant portion of the lead that you inhale or ingest gets into your blood stream. Once in your blood stream lead is circulated throughout your body and stored in various organs and body tissues. Some of this lead is quickly filtered out of your body and excreted, but some remains in your blood and other tissue. As exposure to lead continues, the amount stored in your body will increase if you are absorbing more lead than your body is excreting. Even though you may

not be aware of any immediate symptoms of disease, this lead stored in your tissues can be slowly causing irreversible damage, first to individual cells, then to your organs and whole body systems.

(B) Effects of overexposure to lead.

(I) Short-term (acute) overexposure. Lead is a potent, systemic poison that serves no known useful function once absorbed by your body. Taken in large enough doses, lead can kill you in a matter of days. A condition affecting the brain called acute encephalopathy may arise which develops quickly to seizures, coma, and death from cardiorespiratory arrest. A short-term dose of lead can lead to acute encephalopathy. Short-term occupational exposures of this magnitude are highly unusual, but not impossible. Similar forms of encephalopathy may, however arise from extended, chronic exposure to lower doses of lead. There is no sharp dividing line between rapidly developing acute effects of lead, and chronic effects which take longer to acquire. Lead adversely affects numerous body systems, and causes forms of health impairment and disease which arise after periods of exposure as short as days or as long as several years.

(II) Long-term (chronic) overexposure.

a) Chronic overexposure to lead may result in severe damage to your blood-forming, nervous, urinary and reproductive systems. Some common symptoms of chronic overexposure include loss of appetite, metallic taste in the mouth, anxiety, constipation, nausea, pallor, excessive tiredness, weakness, insomnia, headache, nervous irritability, muscle and joint pain or soreness, fine tremors, numbness, dizziness, hyperactivity and colic. In lead colic there may be severe abdominal pain.

b) Damage to the central nervous system in general and the brain (encephalopathy) in particular is one of the most severe forms of lead poisoning. The most severe, often fatal, form of encephalopathy may be preceded by vomiting, a feeling of dullness progressing to drowsiness and stupor, poor memory, restlessness, irritability, tremor, and convulsions. It may arise suddenly with the onset of seizures, followed by coma, and death. There is a tendency for muscular weakness to develop at the same time. This weakness may progress to paralysis often observed as a characteristic "wrist drop" or "foot drop" and is a manifestation of a disease to the nervous system called peripheral neuropathy.

c) Chronic overexposure to lead also results in kidney disease with few, if any, symptoms appearing until extensive and most likely permanent kidney damage has occurred. Routine laboratory tests reveal the presence of this kidney disease only after about two-thirds of kidney function is lost. When overt symptoms of urinary dysfunction arise, it is often too late to correct or prevent worsening conditions, and progression of kidney dialysis or death is possible.

d) Chronic overexposure to lead impairs the reproductive systems of both men and women. Overexposure to lead may result in decreased sex drive, impotence and sterility in men. Lead can alter the structure of sperm cells raising the risk of birth defects. There is evidence of miscarriage and stillbirth in women whose husbands were exposed to lead or who were exposed to lead themselves. Lead exposure also may result in decreased fertility, and abnormal menstrual cycles in women. The course of pregnancy may be adversely

affected by exposure to lead since lead crosses the placental barrier and poses risks to developing fetuses. Children born of parents either one of whom were exposed to excess lead levels are more likely to have birth defects, mental retardation, behavioral disorders or die during the first year of childhood.

e) Overexposure to lead also disrupts the blood-forming system resulting in decreased hemoglobin (the substance in the blood that carries oxygen to the cells) and ultimately anemia. Anemia is characterized by weakness, pallor and fatigability as a result of decreased oxygen carrying capacity in the blood.

(III) Health protection goals of the standard.

a) Prevention of adverse health effects for most workers from exposure to lead throughout a working lifetime requires that worker blood lead (PbB) levels be maintained at or below forty micrograms per one hundred grams of whole blood (40  $\mu\text{g}/100\text{g}$ ). The blood lead levels of workers (both male and female workers) who intend to have children should be maintained below 30  $\mu\text{g}/100\text{g}$  to minimize adverse reproductive health effects to the parents and to the developing fetus.

b) The measurement of your blood lead level is the most useful indicator of the amount of lead absorbed by your body. Blood lead levels (PbB) are most often reported in units of milligrams (mg) or micrograms ( $\mu\text{g}$ ) of lead (1 mg = 1000  $\mu\text{g}$ ) per 100 grams (100g), 100 milliliters (100 ml) or deciliter (dl) of blood. These three units are essentially the same. Sometimes PbB's are expressed in the form of mg% or  $\mu\text{g}\%$ . This is a shorthand notation for 100g, 100ml, or dl.

c) PbB measurements show the amount of lead circulating in your blood stream, but do not give any information about the amount of lead stored in your various tissues. PbB measurements merely show current absorption of lead, not the effect that lead is having on your body or the effects that past lead exposure may have already caused. Past research into lead-related diseases, however, has focused heavily on associations between PbBs and various diseases. As a result, your PbB is an important indicator of the likelihood that you will gradually acquire a lead-related health impairment or disease.

d) Once your blood lead level climbs above 40  $\mu\text{g}/100\text{g}$ , your risk of disease increases. There is a wide variability of individual response to lead, thus it is difficult to say that a particular PbB in a given person will cause a particular effect. Studies have associated fatal encephalopathy with PbBs as low as 150  $\mu\text{g}/100\text{g}$ . Other studies have shown other forms of disease in some workers with PbBs well below 80  $\mu\text{g}/100\text{g}$ . Your PbB is a crucial indicator of the risks to your health, but one other factor is extremely important. This factor is the length of time you have had elevated PbBs. The longer you have an elevated PbB, the greater the risk that large quantities of lead are being gradually stored in your organs and tissues (body burden). The greater your overall body burden, the greater the chances of substantial permanent damage.

e) The best way to prevent all forms of lead-related impairments and diseases—both short-term and long-term—is to maintain your PbB below 40  $\mu\text{g}/100\text{g}$ . The provisions of the standard are designed with this end in mind. Your employer has prime responsibility to ((~~assure~~)) ensure that

the provisions of the standard are complied with both by the company and by individual workers. You as a worker, however, also have a responsibility to assist your employer in complying with the standard. You can play a key role in protecting your own health by learning about the lead hazards and their control, learning what the standard requires, following the standard where it governs your own action, and seeing that your employer complies with the provisions governing his actions.

(IV) Reporting signs and symptoms of health problems. You should immediately notify your employer if you develop signs or symptoms associated with lead poisoning or if you desire medical advice concerning the effects of current or past exposure to lead on your ability to have a healthy child. You should also notify your employer if you have difficulty breathing during a respirator fit test or while wearing a respirator. In each of these cases your employer must make available to you appropriate medical examinations or consultations. These must be provided at no cost to you and at a reasonable time and place.

(b) Appendix B. Employee Standard Summary. This appendix summarizes key provisions of the standard that you as a worker should become familiar with. The appendix discusses the entire standard.

(i) Permissible exposure limit (PEL). The standard sets a permissible exposure limit (PEL) of fifty micrograms of lead per cubic meter of air (50  $\mu\text{g}/\text{m}^3$ ), averaged over an eight-hour workday. This is the highest level of lead in air to which you may be permissibly exposed over an eight-hour workday. Since it is an eight-hour average it permits short exposures above the PEL so long as for each eight-hour workday your average exposure does not exceed the PEL.

(ii) Exposure monitoring.

(A) If lead is present in the work place where you work in any quantity, your employer is required to make an initial determination of whether the action level is exceeded for any employee. The initial determination must include instrument monitoring of the air for the presence of lead and must cover the exposure of a representative number of employees who are reasonably believed to have the highest exposure levels. If your employer has conducted appropriate air sampling for lead in the past year he may use these results. If there have been any employee complaints of symptoms which may be attributable to exposure to lead or if there is any other information or observations which would indicate employee exposure to lead, this must also be considered as part of the initial determination. If this initial determination shows that a reasonable possibility exists that any employee may be exposed, without regard to respirators, over the action level (30  $\mu\text{g}/\text{m}^3$ ) your employer must set up an air monitoring program to determine the exposure level of every employee exposed to lead at your work place.

(B) In carrying out this air monitoring program, your employer is not required to monitor the exposure of every employee, but ((~~he or she~~)) they must monitor a representative number of employees and job types. Enough sampling must be done to enable each employee's exposure level to be reasonably represented by at least one full shift (at least seven hours) air sample. In addition, these air samples must be

taken under conditions which represent each employee's regular, daily exposure to lead.

(C) If you are exposed to lead and air sampling is performed, your employer is required to quickly notify you in writing of air monitoring results which represent your exposure. If the results indicate your exposure exceeds the PEL (without regard to your use of respirators), then your employer must also notify you of this in writing, and provide you with a description of the corrective action that will be taken to reduce your exposure.

(D) Your exposure must be rechecked by monitoring every six months if your exposure is over the action level but below the PEL. Air monitoring must be repeated every three months if you are exposed over the PEL. Your employer may discontinue monitoring for you if two consecutive measurements, taken at least two weeks apart, are below the action level. However, whenever there is a production, process, control, or personnel change at your work place which may result in new or additional exposure to lead, or whenever there is any other reason to suspect a change which may result in new or additional exposure to lead, your employer must perform additional monitoring.

(iii) Methods of compliance. Your employer is required to ((~~assure~~)) ensure that no employee is exposed to lead in excess of the PEL. The standard establishes a priority of methods to be used to meet the PEL.

(iv) Respiratory protection.

(A) Your employer is required to provide and ((~~assure~~)) ensure your use of respirators when your exposure to lead is not controlled below the PEL by other means. The employer must pay the cost of the respirator. Whenever you request one, your employer is also required to provide you a respirator even if your air exposure level does not exceed the PEL. You might desire a respirator when, for example, you have received medical advice that your lead absorption should be decreased. Or, you may intend to have children in the near future, and want to reduce the level of lead in your body to minimize adverse reproductive effects. While respirators are the least satisfactory means of controlling your exposure, they are capable of providing significant protection if properly chosen, fitted, worn, cleaned, maintained, and replaced when they stop providing adequate protection.

(B) Your employer is required to select respirators from the seven types listed in Table II of the respiratory protection section of this standard (see subsection (7)(c) of this section). Any respirator chosen must be certified by the National Institute for Occupational Safety and Health (NIOSH) under the provisions of 42 C.F.R. part 84. This respirator selection table will enable your employer to choose a type of respirator which will give you a proper amount of protection based on your airborne lead exposure. Your employer may select a type of respirator that provides greater protection than that required by the standard; that is, one recommended for a higher concentration of lead than is present in your work place. For example, a powered air purifying respirator (PAPR) is much more protective than a typical negative-pressure respirator, and may also be more comfortable to wear. A PAPR has a filter, cartridge or canister to clean the air, and a power source which continuously blows filtered air into your breathing zone. Your employer might make a PAPR avail-

able to you to ease the burden of having to wear a respirator for long periods of time. The standard provides that you can obtain a PAPR upon request.

(C) Your employer must also start a respiratory protection program. This program must include written procedures for the proper selection, use, cleaning, storage, and maintenance of respirators.

(D) Your employer must ((~~assure~~)) ensure that your respirator facepiece fits properly. Proper fit of a respirator facepiece is critical to your protection against air borne lead. Obtaining a proper fit on each employee may require your employer to make available several different types of respirator masks. To ensure that your respirator fits properly and that facepiece leakage is minimal, your employer must give you either a qualitative or quantitative fit test as required in chapter 296-842 WAC.

(E) You must also receive from your employer proper training in the use of respirators. Your employer is required to teach you how to wear a respirator, to know why it is needed, and to understand its limitations.

(F) The standard provides that if your respirator uses filter elements, you must be given an opportunity to change the filter elements whenever an increase in breathing resistance is detected. You also must be permitted to periodically leave your work area to wash your face and respirator facepiece whenever necessary to prevent skin irritation. If you ever have difficulty breathing during a fit test or while using a respirator, your employer must make a medical examination available to you to determine whether you can safely wear a respirator. The result of this examination may be to give you a positive pressure respirator (which reduces breathing resistance) or to provide alternative means of protection.

(v) Protective work clothing and equipment. If you are exposed to lead above the PEL, or if you are exposed to lead compounds such as lead arsenate or lead azide which can cause skin and eye irritation, your employer must provide you with protective work clothing and equipment appropriate for the hazard. If work clothing is provided, it must be provided in a clean and dry condition at least weekly, and daily if your airborne exposure to lead is greater than 200 µg/m<sup>3</sup>. Appropriate protective work clothing and equipment can include coveralls or similar full-body work clothing, gloves, hats, shoes or disposable shoe coverlets, and face shields or vented goggles. Your employer is required to provide all such equipment at no cost to you. ((~~He or she is~~)) They are responsible for providing repairs and replacement as necessary and also is responsible for the cleaning, laundering or disposal of protective clothing and equipment. Contaminated work clothing or equipment must be removed in change rooms and not worn home or you will extend your exposure and expose your family since lead from your clothing can accumulate in your house, car, etc. Contaminated clothing which is to be cleaned, laundered or disposed of must be placed in closed containers in the change room. At no time may lead be removed from protective clothing or equipment by any means which disperses lead into the work room air.

(vi) Housekeeping. Your employer must establish a housekeeping program sufficient to maintain all surfaces as free as practicable of accumulations of lead dust. Vacuuming is the preferred method of meeting this requirement, and the

use of compressed air to clean floors and other surfaces is absolutely prohibited. Dry or wet sweeping, shoveling, or brushing may not be used except where vacuuming or other equally effective methods have been tried and do not work. Vacuums must be used and emptied in a manner which minimizes the reentry of lead into the work place.

(vii) Hygiene facilities and practices.

(A) The standard requires that change rooms, showers and filtered air lunchrooms be constructed and made available to workers exposed to lead above the PEL. When the PEL is exceeded, the employer must ~~((assure))~~ ensure that food and beverage is not present or consumed, tobacco products are not present or used, and cosmetics are not applied, except in these facilities. Change rooms, showers and lunchrooms, must be used by workers exposed in excess of the PEL. After showering, no clothing or equipment worn during the shift may be worn home and this includes shoes and underwear. Your own clothing worn during the shift should be carried home and cleaned carefully so that it does not contaminate your home. Lunchrooms may not be entered with protective clothing or equipment unless surface dust has been removed by vacuuming, downdraft booth or other cleaning methods. Finally, workers exposed above the PEL must wash both their hands and faces prior to eating, drinking, smoking or applying cosmetics.

(B) All of the facilities and hygiene practices just discussed are essential to minimize additional sources of lead absorption from inhalation or ingestion of lead that may accumulate on you, your clothes or your possessions. Strict compliance with these provisions can virtually eliminate several sources of lead exposure which significantly contribute to excessive lead absorption.

(viii) Medical surveillance.

(A) The medical surveillance program is part of the standard's comprehensive approach to the prevention of lead-related disease. Its purpose is to supplement the main thrust of the standard which is aimed at minimizing airborne concentrations of lead and sources of ingestion. Only medical surveillance can determine if the other provisions of the standard have effectively protected you as an individual. Compliance with the standard's provision will protect most workers from the adverse effects of lead exposure, but may not be satisfactory to protect individual workers (I) who have high body burdens of lead acquired over past years, (II) who have additional uncontrolled sources of nonoccupational lead exposure, (III) who exhibit unusual variations in lead absorption rates, or (IV) who have specific nonwork related medical conditions which could be aggravated by lead exposure (e.g., renal disease, anemia). In addition, control systems may fail, or hygiene and respirator programs may be inadequate. Periodic medical surveillance of individual workers will help detect those failures. Medical surveillance will also be important to protect your reproductive ability - regardless of whether you are a man or a woman.

(B) All medical surveillance required by the standard must be performed by or under the supervision of a licensed physician. The employer must provide required medical surveillance without cost to employees and at a reasonable time and place. The standard's medical surveillance program has

two parts - Periodic biological monitoring, and medical examinations.

(C) Your employer's obligation to offer medical surveillance is triggered by the results of the air monitoring program. Medical surveillance must be made available to all employees who are exposed in excess of the action level for more than thirty days a year. The initial phase of the medical surveillance program, which included blood lead level tests and medical examinations, must be completed for all covered employees no later than one hundred eighty days from the effective date of this standard. Priority within this first round of medical surveillance must be given to employees whom the employer believes to be at greatest risk from continued exposure (for example, those with the longest prior exposure to lead, or those with the highest current exposure). Thereafter, the employer must periodically make medical surveillance - both biological monitoring and medical examinations - available to all covered employees.

(D) Biological monitoring under the standard consists of blood lead level (PbB) and zinc protoporphyrin tests at least every six months after the initial PbB test. A zinc protoporphyrin (ZPP) test is a very useful blood test which measures an effect of lead on your body. If a worker's PbB exceeds 40  $\mu\text{g}/100\text{g}$ , the monitoring frequency must be increased from every six months to at least every two months and not reduced until two consecutive PbBs indicate a blood lead level below 40  $\mu\text{g}/100\text{g}$ . Each time your PbB is determined to be over 40  $\mu\text{g}/100\text{g}$ , your employer must notify you of this in writing within five working days of the receipt of the test results. The employer must also inform you that the standard requires temporary medical removal with economic protection when your PbB exceeds certain criteria (see Discussion of Medical Removal Protection - subsection (12)). During the first year of the standard, this removal criterion is 80  $\mu\text{g}/100\text{g}$ . Anytime your PbB exceeds 80  $\mu\text{g}/100\text{g}$  your employer must make available to you a prompt follow-up PbB test to ascertain your PbB. If the two tests both exceed 80  $\mu\text{g}/100\text{g}$  and you are temporarily removed, then your employer must make successive PbB tests available to you on a monthly basis during the period of your removal.

(E) Medical examinations beyond the initial one must be made available on an annual basis if your blood lead levels exceeds 40  $\mu\text{g}/100\text{g}$  at any time during the preceding year. The initial examination will provide information to establish a baseline to which subsequent data can be compared. An initial medical examination must also be made available (prior to assignment) for each employee being assigned for the first time to an area where the airborne concentration of lead equals or exceeds the action level. In addition, a medical examination or consultation must be made available as soon as possible if you notify your employer that you are experiencing signs or symptoms commonly associated with lead poisoning or that you have difficulty breathing while wearing a respirator or during a respirator fit test. You must also be provided a medical examination or consultation if you notify your employer that you desire medical advice concerning the effects of current or past exposure to lead on your ability to procreate a healthy child.

(F) Finally, appropriate follow-up medical examinations or consultations may also be provided for employees who

have been temporarily removed from exposure under the medical removal protection provisions of the standard (see item (ix) below).

(G) The standard specifies the minimum content of pre-assignment and annual medical examinations. The content of other types of medical examinations and consultations is left up to the sound discretion of the examining physician. Pre-assignment and annual medical examinations must include (I) a detailed work history and medical history, (II) a thorough physical examination, and (III) a series of laboratory tests designed to check your blood chemistry and your kidney function. In addition, at any time upon your request, a laboratory evaluation of male fertility will be made (microscopic examination of a sperm sample), or a pregnancy test will be given.

(H) The standard does not require that you participate in any of the medical procedures, tests, etc., which your employer is required to make available to you. Medical surveillance can, however, play a very important role in protecting your health. You are strongly encouraged, therefore, to participate in a meaningful fashion. Generally, your employer will choose the physician who conducts medical surveillance under the lead standard - unless you and your employer can agree on the choice of a physician or physicians. Some companies and unions have agreed in advance, for example, to use certain independent medical laboratories or panels of physicians. Any of these arrangements are acceptable so long as required medical surveillance is made available to workers.

(I) The standard requires your employer to provide certain information to a physician to aid in ~~((his or her))~~ their examination of you. This information includes (I) the standard and its appendices, (II) a description of your duties as they relate to lead exposure, (III) your exposure level, (IV) a description of personal protective equipment you wear, (V) prior blood level results, and (VI) prior written medical opinions concerning you that the employer has. After a medical examination or consultation the physician must prepare a written report which must contain (I) the physician's opinion as to whether you have any medical conditions which places you at increased risk of material impairment to health from exposure to lead, (II) any recommended special protective measures to be provided to you, (III) any blood lead level determinations, and (IV) any recommended limitation on your use of respirators. This last element must include a determination of whether you can wear a powered air purifying respirator (PAPR) if you are found unable to wear a negative pressure respirator.

(J) The medical surveillance program of the lead standard may at some point in time serve to notify certain workers that they have acquired a disease or other adverse medical condition as a result of occupational lead exposure. If this is true these workers might have legal rights to compensation from public agencies, their employers, firms that supply hazardous products to their employers, or other persons. Some states have laws, including worker compensation laws, that disallow a worker to learn of a job-related health impairment to sue, unless the worker sues within a short period of time after learning of the impairment. (This period of time may be a matter of months or years.) An attorney can be consulted

about these possibilities. It should be stressed that WISHA is in no way trying to either encourage or discourage claims or lawsuits. However, since results of the standard's medical surveillance program can significantly affect the legal remedies of a worker who has acquired a job-related disease or impairment, it is proper for WISHA to make you aware of this.

(K) The medical surveillance section of the standard also contains provisions dealing with chelation. Chelation is the use of certain drugs (administered in pill form or injected into the body) to reduce the amount of lead absorbed in body tissues. Experience accumulated by the medical and scientific communities has largely confirmed the effectiveness of this type of therapy for the treatment of very severe lead poisoning. On the other hand it has also been established that there can be a long list of extremely harmful side effects associated with the use of chelating agents. The medical community has balanced the advantages and disadvantages resulting from the use of chelating agents in various circumstances and has established when the use of these agents is acceptable. The standard includes these accepted limitations due to a history of abuse of chelation therapy by some lead companies. The most widely used chelating agents are calcium disodium EDTA, (Ca Na<sub>2</sub>EDTA), Calcium Disodium Versenate (Versenate), and d-penicillamine (penicillamine or Cupramine).

(L) The standard prohibits "prophylactic chelation" of any employee by any person the employer retains, supervises or controls. "Prophylactic chelation" is the routine use of chelating or similarly acting drugs to prevent elevated blood levels in workers who are occupationally exposed to lead, or the use of these drugs to routinely lower blood lead levels to pre-designated concentrations believed to be safe. It should be emphasized that where an employer takes a worker who has no symptoms of lead poisoning and has chelation carried out by a physician (either inside or outside of a hospital) solely to reduce the worker's blood lead level, that will generally be considered prophylactic chelation. The use of a hospital and a physician does not mean that prophylactic chelation is not being performed. Routine chelation to prevent increased or reduce current blood lead levels is unacceptable whatever the setting.

(M) The standard allows the use of "therapeutic" or "diagnostic" chelation if administered under the supervision of a licensed physician in a clinical setting with thorough and appropriate medical monitoring. Therapeutic chelation responds to severe lead poisoning where there are marked symptoms. Diagnostic chelation, involves giving a patient a dose of the drug then collecting all urine excreted for some period of time as an aid to the diagnosis of lead poisoning.

(N) In cases where the examining physician determines that chelation is appropriate, you must be notified in writing of this fact before such treatment. This will inform you of a potentially harmful treatment, and allow you to obtain a second opinion.

(ix) Medical removal protection.

(A) Excessive lead absorption subjects you to increased risk of disease. Medical removal protection (MRP) is a means of protecting you when for whatever reasons, other methods, such as engineering controls, work practices, and respirators,

have failed to provide the protection you need. MRP involves the temporary removal of a worker from his or her regular job to a place of significantly lower exposure without any loss of earnings, seniority, or other employment rights or benefits. The purpose of this program is to cease further lead absorption and allow your body to naturally excrete lead which has previously been absorbed. Temporary medical removal can result from an elevated blood lead level, or a medical opinion. Up to eighteen months of protection is provided as a result of either form of removal. The vast majority of removed workers, however, will return to their former jobs long before this eighteen month period expires. The standard contains special provisions to deal with the extraordinary but possible case where a long-term worker's blood lead level does not adequately decline during eighteen months of removal.

(B) During the first year of the standard, if your blood lead level is 80 µg/100g or above you must be removed from any exposure where your air lead level without a respirator would be 100 µg/m<sup>3</sup> or above. If you are removed from your normal job you may not be returned until your blood lead level declines to at least 60 µg/100g. These criteria for removal and return will change according to the following schedule:

TABLE 1

Effective Date	Removal Blood Level (µg/100g)	Air Lead (µg/m <sup>3</sup> )	Return Blood Lead (µg/100g)
9/6/81	At or above 70	50 or above	At or below 50
9/6/82	At or above 60	30 or above	At or below 40
9/6/84	At or above 50 averaged over six months	30 or above	At or below 40

(C) You may also be removed from exposure even if your blood lead levels are below these criteria if a final medical determination indicates that you temporarily need reduced lead exposure for medical reasons. If the physician who is implementing your employer's medical program makes a final written opinion recommending your removal or other special protective measures, your employer must implement the physician's recommendation. If you are removed in this manner, you may only be returned when the physician indicates it is safe for you to do so.

(D) The standard does not give specific instructions dealing with what an employer must do with a removed worker. Your job assignment upon removal is a matter for you, your employer and your union (if any) to work out consistent with existing procedures for job assignments. Each removal must be accomplished in a manner consistent with existing collective bargaining relationships. Your employer is given broad discretion to implement temporary removals so long as no attempt is made to override existing agreements. Similarly, a removed worker is provided no right to veto an employer's choice which satisfies the standard.

(E) In most cases, employers will likely transfer removed employees to other jobs with sufficiently low lead exposure. Alternatively, a worker's hours may be reduced so that the time weighted average exposure is reduced, or he or she may be temporarily laid off if no other alternative is feasible.

(F) In all of these situations, MRP benefits must be provided during the period of removal - i.e., you continue to receive the same earnings, seniority, and other rights and benefits you would have had if you had not been removed. Earnings include more than just your base wage; it includes overtime, shift differentials, incentives, and other compensation you would have earned if you had not been removed. During the period of removal you must also be provided with appropriate follow-up medical surveillance. If you were removed because your blood lead level was too high, you must be provided with a monthly blood test. If a medical opinion caused your removal, you must be provided medical tests or examinations that the physician believes to be appropriate. If you do not participate in this follow-up medical surveillance, you may lose your eligibility for MRP benefits.

(G) When you are medically eligible to return to your former job, your employer must return you to your "former job status." This means that you are entitled to the position, wages, benefits, etc., you would have had if you had not been removed. If you would still be in your old job if no removal had occurred, that is where you go back. If not, you are returned consistent with whatever job assignment discretion your employer would have had if no removal had occurred. MRP only seeks to maintain your rights, not expand them or diminish them.

(H) If you are removed under MRP and you are also eligible for worker compensation or other compensation for lost wages, your employer's MRP benefits obligation is reduced by the amount that you actually receive from these other sources. This is also true if you obtain other employment during the time you are laid off with MRP benefits.

(I) The standard also covers situations where an employer voluntarily removes a worker from exposure to lead due to the effects of lead on the employee's medical condition, even though the standard does not require removal. In these situations MRP benefits must still be provided as though the standard required removal. Finally, it is important to note that in all cases where removal is required, respirators cannot be used as a substitute. Respirators may be used before removal becomes necessary, but not as an alternative to a transfer to a low exposure job, or to a lay-off with MRP benefits.

(x) Employee information and training.

(A) Your employer is required to provide an information and training program for all employees exposed to lead above the action level or who may suffer skin or eye irritation from lead. This program must inform these employees of the specific hazards associated with their work environment, protective measures which can be taken, the danger of lead to their bodies (including their reproductive systems), and their rights under the standard. In addition, your employer must make readily available to all employees, including those exposed below the action level, a copy of the standard and its appendices and must distribute to all employees any materials pro-

vided to the employer under the Washington Industrial Safety and Health Act (WISHA).

(B) Your employer is required to complete this training for all employees by March 4, 1981. After this date, all new employees must be trained prior to initial assignment to areas where there is possibility of exposure over the action level. This training program must also be provided at least annually thereafter.

(xi) Signs. The standard requires that the following warning sign be posted in work areas where the exposure to lead exceeds the PEL:

DANGER LEAD  
MAY DAMAGE FERTILITY OR THE UNBORN CHILD  
CAUSES DAMAGE TO THE CENTRAL NERVOUS SYSTEM  
DO NOT EAT, DRINK OR SMOKE IN THIS AREA

~~((However, prior to June 1, 2016, employers may use the following legend in lieu of that specified above:~~

~~WARNING  
LEAD WORK AREA  
NO-SMOKING OR EATING))~~

(xii) Recordkeeping.

(A) Your employer is required to keep all records of exposure monitoring for airborne lead. These records must include the name and job classification of employees measured, details of the sampling and analytic techniques, the results of this sampling and the type of respiratory protection being worn by the person sampled. Your employer is also required to keep all records of biological monitoring and medical examination results. These must include the names of the employees, the physician's written opinion and a copy of the results of the examination. All of the above kinds of records must be kept for forty years, or for at least twenty years after your termination of employment, whichever is longer.

(B) Recordkeeping is also required if you are temporarily removed from your job under the MRP program. This record must include your name and Social Security number, the date of your removal and return, how the removal was or is being accomplished, and whether or not the reason for the removal was an elevated blood lead level. Your employer is required to keep each medical removal record only for as long as the duration of an employee's employment.

(C) The standard requires that if you request to see or copy environmental monitoring, blood lead level monitoring, or medical removal records, they must be made available to you or to a representative that you authorize. Your union also has access to these records. Medical records other than PbBs must also be provided to you upon request, to your physician or to any other person whom you may specifically designate. Your union does not have access to your personal medical records unless you authorize their access.

(xiii) Observations of monitoring. When air monitoring for lead is performed at your work place as required by this standard, your employer must allow you or someone you designate to act as an observer of the monitoring. Observers are entitled to an explanation of the measurement procedure, and to record the results obtained. Since results will not normally be available at the time of the monitoring, observers are entitled to record or receive the results of the monitoring when

returned by the laboratory. Your employer is required to provide the observer with any personal protective devices required to be worn by employees working in the areas that is being monitored. The employer must require the observer to wear all such equipment and to comply with all other applicable safety and health procedures.

(xiv) Effective date. The standard's effective date is September 6, 1980, and the employer's obligation under the standard begin to come into effect as of that date. The standard was originally adopted as WAC 296-62-07349 and later recodified to WAC 296-62-07521.

(c) Appendix C. Medical Surveillance Guidelines.

(i) Introduction.

(A) The primary purpose of the Washington Industrial Safety and Health Act of 1973 is to ((~~assure~~)) ensure, so far as possible, safe and healthful working conditions for every working man and woman. The occupational health standard for inorganic lead\* was promulgated to protect workers exposed to inorganic lead including metallic lead, all inorganic lead compounds and organic lead soaps.

\*The term inorganic lead used throughout the medical surveillance appendices is meant to be synonymous with the definition of lead set forth in the standard.

(B) Under this final standard in effect as of September 6, 1980, occupational exposure to inorganic lead is to be limited to 50 µg/m<sup>3</sup> (micrograms per cubic meter) based on an eight-hour time-weighted average (TWA). This level of exposure eventually must be achieved through a combination of engineering, work practice and other administrative controls. Periods of time ranging from one to ten years are provided for different industries to implement these controls which are based on individual industry considerations. Until these controls are in place, respirators must be used to meet the 50 µg/m<sup>3</sup> exposure limit.

(C) The standard also provides for a program of biological monitoring and medical surveillance for all employees exposed to levels of inorganic lead above the action level of 30 µg/m<sup>3</sup> for more than thirty days per year.

(D) The purpose of this document is to outline the medical surveillance provisions of the standard for inorganic lead, and to provide further information to the physician regarding the examination and evaluation of workers exposed to inorganic lead.

(E) Item (ii) provides a detailed description of the monitoring procedure including the required frequency of blood testing for exposed workers, provisions for medical removal protection (MRP), the recommended right of the employee to a second medical opinion, and notification and recordkeeping requirements of the employer. A discussion of the requirements for respirator use and respirator monitoring and WISHA's position on prophylactic chelation therapy are also included in this section.

(F) Item (iii) discusses the toxic effects and clinical manifestations of lead poisoning and effects of lead intoxication on enzymatic pathways in heme synthesis. The adverse effects on both male and female reproductive capacity and on the fetus are also discussed.

(G) Item (iv) outlines the recommended medical evaluation of the worker exposed to inorganic lead including details of the medical history, physical examination, and recom-

mended laboratory tests, which are based on the toxic effects of lead as discussed in item (ii).

(H) Item (v) provides detailed information concerning the laboratory tests available for the monitoring of exposed workers. Included also is a discussion of the relative value of each test and the limitations and precautions which are necessary in the interpretation of the laboratory results.

(I) Airborne levels to be achieved without reliance or respirator protection through a combination of engineering and work practice or other administrative controls are illustrated in the following table:

Industry	Permissible Lead Level/Compliance Date		
	200µg/m <sup>3</sup>	100µg/m <sup>3</sup>	50µg/m <sup>3</sup>
Primary Lead Production	1973	06/29/84	06/29/91
Secondary Lead Production	1973	06/29/84	06/29/91
Lead Acid Battery Manufacturing	1973	06/29/83	06/29/91
Automobile Mfg./Solder, Grinding	1973	N/A	03/08/97
Electronics, Gray Iron Foundries, Ink Mfg., Paints and Coatings Mfg., Can Mfg., Wallpaper Mfg., and Printing.	1973	N/A	06/29/91
Lead Chemical Mfg., Nonferrous Foundries, Leaded Steel Mfg., Battery Breaking in the Collection and Processing of Scrap (when not a part of secondary lead smelter)			
Secondary Copper Smelter, Brass and Bronze Ingot Production.	1973	N/A	N/A <sup>1*</sup>
All Other Industries	1973	N/A	09/08/92

\* Feasibility of achieving the PEL by engineering and work practice controls for these industries has yet to be resolved in court, therefore no date has been scheduled.

(ii) Medical surveillance and monitoring requirements for workers exposed to inorganic lead.

(A) Under the occupational health standard for inorganic lead, a program of biological monitoring and medical surveillance is to be made available to all employees exposed to lead above the action level of 30 µg/m<sup>3</sup> TWA for more than thirty days each year. This program consists of periodic blood sampling and medical evaluation to be performed on a schedule which is defined by previous laboratory results, worker complaints or concerns, and the clinical assessment of the examining physician.

(B) Under this program, the blood lead level of all employees who are exposed to lead above the action level of 30 µg/m<sup>3</sup> is to be determined at least every six months. The frequency is increased to every two months for employees whose last blood lead level was between 40 µg/100g whole blood and the level requiring employee medical removal to be discussed below. For employees who are removed from exposure to lead due to an elevated blood lead, a new blood lead level must be measured monthly. Zinc protoporphyrin

(ZPP) measurement is required on each occasion that a blood lead level measurement is made.

(C) An annual medical examination and consultation performed under the guidelines discussed in item (iv) is to be made available to each employee for whom a blood test conducted at any time during the preceding twelve months indicated a blood lead level at or above 40 µg/100g. Also, an examination is to be given to all employees prior to their assignment to an area in which airborne lead concentrations reach or exceed the action level. In addition, a medical examination must be provided as soon as possible after notification by an employee that the employee has developed signs or symptoms commonly associated with lead intoxication, that the employee desires medical advice regarding lead exposure and the ability to procreate a healthy child, or that the employee has demonstrated difficulty in breathing during a respirator fitting test or during respirator use. An examination is also to be made available to each employee removed from exposure to lead due to a risk of sustaining material impairment to health, or otherwise limited or specially protected pursuant to medical recommendations.

(D) Results of biological monitoring or the recommendations of an examining physician may necessitate removal of an employee from further lead exposure pursuant to the standard's medical removal program (MRP). The object of the MRP program is to provide temporary medical removals to workers either with substantially elevated blood lead levels or otherwise at risk of sustaining material health impairment from continued substantial exposure to lead. The following guidelines which are summarized in Table 10 were created under the standard for the temporary removal of an exposed employee and (~~his or her~~) their subsequent return to work in an exposure area.

TABLE 10

EFFECTIVE DATE

	Sept. 6, 1980	Sept. 6, 1981	Sept. 6, 1982	Sept. 6, 1983	Sept. 6, 1984
A. Blood lead level requiring employee medical removal (level must be confirmed with second follow-up blood lead level within two weeks of first report).	>80 µg/100g.	>70 µg/100g.	>60 µg/100g.	>60 µg/100g.	>60 µg/100g or average of last three blood samples or all blood samples over previous 6 months (whichever is over a longer time period) is 50 µg/100g. or greater unless last sample is 40 µg/100g or less.
B. Frequency which employees exposed is action level of lead (30 µg/m <sup>3</sup> TWA) must have blood lead level checked. (ZPP is also required in each occasion that a blood test is obtained):					
1. Last blood lead level less than 40 µg/100g	Every 6 months.	Every 6 months.	Every 6 months.	Every 6 months.	Every 6 months.
2. Last blood lead level between 40 µg/100g and level requiring medical removal (see A above) . . . . .	Every 2 months.	Every 2 months.	Every 2 months.	Every 2 months.	Every 2 months.
3. Employees removed from exposure to lead because of an elevated blood lead level . . . . .	Every 1 month.	Every 1 month.	Every 1 month.	Every 1 month.	Every 1 month.
C. Permissible airborne exposure limit for workers removed from work due to an elevated blood lead level (without regard to respirator protection).	100 µg/m <sup>3</sup> 8 hr TWA	50 µg/m <sup>3</sup> 8 hr TWA	30 µg/m <sup>3</sup> 8 hr TWA	30 µg/m <sup>3</sup> 8 hr TWA	30 µg/m <sup>3</sup> 8 hr TWA
D. Blood lead level confirmed with a second blood analysis, at which employee may return to work. Permissible exposure without regard to respirator protection is listed by industry in Table 1.	60 µg/100g	50 µg/100g	40 µg/100g	40 µg/100g	40 µg/100g

Note: Where medical opinion indicates that an employee is at risk of material impairment from exposure to lead, the physician can remove an employee from exposure exceeding the action level (or less) or recommend special protective measures as deemed appropriate and necessary. Medical monitoring during the medical removal period can be more stringent than noted in the table above if the physician so specifies. Return to work or removal of limitations and special protections is permitted when the physician indicates that the worker is no longer at risk of material impairment.

(E) Under the standard's ultimate worker removal criteria, a worker is to be removed from any work having any eight-hour TWA exposure to lead of  $30 \mu\text{g}/\text{m}^3$  or more whenever either of the following circumstances apply. (I) a blood lead level of  $60 \mu\text{g}/100\text{g}$  or greater is obtained and confirmed by a second follow-up blood lead level performed within two weeks after the employer receives the results of the first blood sample test, or (II) the average of the previous three blood lead determinations or the average of all blood lead determinations conducted during the previous six months, whichever encompasses the longest time period, equals or exceeds  $50 \mu\text{g}/100\text{g}$ , unless the last blood sample indicates a blood lead level at or below  $40 \mu\text{g}/100\text{g}$ , in which case the employee need not be removed. Medical removal is to continue until two consecutive blood lead levels are  $40 \mu\text{g}/100\text{g}$  or less.

(F) During the first two years that the ultimate removal criteria are being phased in, the return criteria have been set to ~~((assure))~~ ensure that a worker's blood lead level has substantially declined during the period of removal. From March 1, 1979, to March 1, 1980, the blood lead level requiring employee medical removal is  $80 \mu\text{g}/100\text{g}$ . Workers found to have a confirmed blood lead at this level or greater need only be removed from work having a daily eight hour TWA exposure to lead at or above  $100 \mu\text{g}/\text{m}^3$ . Workers so removed are to be returned to work when their blood lead levels are at or below  $60 \mu\text{g}/100\text{g}$  of whole blood. From March 1, 1980, to March 1, 1981, the blood lead level requiring medical removal is  $70 \mu\text{g}/100\text{g}$ . During this period workers need only be removed from jobs having a daily eight hour TWA exposure to lead at or above  $50 \mu\text{g}/\text{m}^3$  and are to be returned to work when a level of  $50 \mu\text{g}/100\text{g}$  is achieved. Beginning March 1, 1981, return depends on the worker's blood lead level declining to  $40 \mu\text{g}/100\text{g}$  of whole blood.

(G) As part of the standard, the employer is required to notify in writing each employee whose whole blood lead level exceeds  $40 \mu\text{g}/100\text{g}$ . In addition, each such employee is to be informed that the standard requires medical removal with MRP benefits, discussed below, when an employee's blood lead level exceeds the above defined limits.

(H) In addition to the above blood lead level criteria, temporary worker removal may also take place as a result of medical determinations and recommendations. Written medical opinions must be prepared after each examination pursuant to the standard. If the examining physician includes medical finding, determination or opinion that the employee has a medical condition which places the employee at increased risk of material health impairment from exposure to lead, then the employee must be removed from exposure to lead at or above the action level. Alternatively, if the examining physician recommends special protective measures for an employee (e.g., use of a powered air purifying respirator) or recommends limitations on an employee's exposure to lead, then the employer must implement these recommendations. Recommendations may be more stringent than the specific

provisions of the standard. The examining physician, therefore, is given broad flexibility to tailor special protective procedures to the needs of individual employees. This flexibility extends to the evaluation and management of pregnant workers and male and female workers who are planning to conceive children. Based on the history, physical examination, and laboratory studies, the physician might recommend special protective measures or medical removal for an employee who is pregnant or who is planning to conceive a child when, in the physician's judgment, continued exposure to lead at the current job would pose a significant risk. The return of the employee to his or her former job status, or the removal of special protections or limitations, depends upon the examining physician determining that the employee is no longer at increased risk of material impairment or that the special measures are no longer needed.

(I) During the period of any form of special protection or removal, the employer must maintain the worker's earnings, seniority, and other employment rights and benefits (as though the worker has not been removed) for a period of up to eighteen months. This economic protection will maximize meaningful worker participation in the medical surveillance program, and is appropriate as part of the employer's overall obligation to provide a safe and healthful work place. The provisions of MRP benefits during the employee's removal period may, however, be conditioned upon participation in medical surveillance.

(J) On rare occasions, an employee's blood lead level may not acceptably decline within eighteen months of removal. This situation will arise only in unusual circumstances, thus the standard relies on an individual medical examination to determine how to protect such an employee. This medical determination is to be based on both laboratory values, including lead levels, zinc protoporphyrin levels, blood counts, and other tests felt to be warranted, as well as the physician's judgment that any symptoms or findings on physical examination are a result of lead toxicity. The medical determination may be that the employee is incapable of ever safely returning to ~~((his or her))~~ their former job status. The medical determination may provide additional removal time past eighteen months for some employees or specify special protective measures to be implemented.

(K) The lead standard provides for a multiple physician review in cases where the employee wishes a second opinion concerning potential lead poisoning or toxicity. If an employee wishes a second opinion, ~~((he or she))~~ they can make an appointment with a physician of ~~((his or her))~~ their choice. This second physician will review the findings, recommendations or determinations of the first physician and conduct any examinations, consultations or tests deemed necessary in an attempt to make a final medical determination. If the first and second physicians do not agree in their assessment they must try to resolve their differences. If they cannot reach an agreement then they must designate a third physician to resolve the dispute.

(L) The employer must provide examining and consulting physicians with the following specific information: A copy of the lead regulations and all appendices, a description of the employee's duties as related to exposure, the exposure level to lead and any other toxic substances (if applicable), a description of personal protective equipment used, blood lead levels, and all prior written medical opinions regarding the employee in the employer's possession or control. The employer must also obtain from the physician and provide the employee with a written medical opinion containing blood lead levels, the physician's opinion as to whether the employee is at risk of material impairment to health, any recommended protective measures for the employee if further exposure is permitted, as well as any recommended limitations upon an employee's use of respirators.

(M) Employers must instruct each physician not to reveal to the employer in writing or in any other way (~~(his or her)~~) their findings, laboratory results, or diagnoses which are felt to be unrelated to occupational lead exposure. They must also instruct each physician to advise the employee of any occupationally or nonoccupationally related medical condition requiring further treatment or evaluation.

(N) The standard provides for the use of respirators when engineering and other primary controls have not been fully implemented. However, the use of respirator protection (~~(shall)~~) must not be used in lieu of temporary medical removal due to elevated blood lead levels or findings that an employee is at risk of material health impairment. This is based on the numerous inadequacies of respirators including skin rash where the facepiece makes contact with the skin, unacceptable stress to breathing in some workers with underlying cardiopulmonary impairment, difficulty in providing adequate fit, the tendency for respirators to create additional hazards by interfering with vision, hearing, and mobility, and the difficulties of (~~(assuring)~~) ensuring the maximum effectiveness of a complicated work practice program involving respirators. Respirators do, however, serve a useful function where engineering and work practice are inadequate by providing interim or short-term protection, provided they are properly selected for the environment in which the employee will be working, properly fitted to the employee, maintained and cleaned periodically, and worn by the employee when required.

(O) In its final standard on occupational exposure to inorganic lead, WISHA has prohibited prophylactic chelation. Diagnostic and therapeutic chelation are permitted only under the supervision of a licensed physician with appropriate medical monitoring in an acceptable clinical setting. The decision to initiate chelation therapy must be made on an individual basis and take into account the severity of symptoms felt to be a result of lead toxicity along with blood lead levels, ZPP levels and other laboratory tests as appropriate. EDTA and penicillamine, which are the primary chelating agents used in the therapy of occupational lead poisoning, have significant potential side effects and their use must be justified on the basis of expected benefits to the worker.

(P) Unless frank and severe symptoms are present, therapeutic chelation is not recommended given the opportunity to remove a worker from exposure and allow the body to naturally excrete accumulated lead. As a diagnostic aid, the che-

lation mobilization test using CA-EDTA has limited applicability. According to some investigators, the tests can differentiate between lead-induced and other nephropathies. The test may also provide an estimation of the mobile fraction of the total body lead burden.

(Q) Employers are required to (~~(assure)~~) ensure that accurate records are maintained on exposure monitoring, medical surveillance, and medical removal for each employee. Exposure monitoring and medical surveillance records must be kept for forty years or the duration of employment plus twenty years, whichever is longer, while medical removal records must be maintained for the duration of employment. All records required under the standard must be made available upon request to representatives of the director of the department of labor and industries. Employers must also make environmental and biological monitoring and medical removal records available to affected employees and to former employees or their authorized employee representatives. Employees or their specifically designated representatives have access to their entire medical surveillance records.

(R) In addition, the standard requires that the employer inform all workers exposed to lead at or above the action level of the provisions of the standard and all its appendices, the purpose and description of medical surveillance and provisions for medical removal protection if temporary removal is required. An understanding of the potential health effects of lead exposure by all exposed employees along with full understanding of their rights under the lead standard is essential for an effective monitoring program.

(iii) Adverse health effects of inorganic lead.

(A) Although the toxicity of lead has been known for 2,000 years, the knowledge of the complex relationship between lead exposure and human response is still being refined. Significant research into the toxic properties of lead continues throughout the world, and it should be anticipated that our understanding of thresholds of effects and margins of safety will be improved in future years. The provisions of the lead standard are founded on two prime medical judgments; first, the prevention of adverse health effects from exposure to lead throughout a working lifetime requires that worker blood lead levels be maintained at or below 40 µg/100g, and second, the blood lead levels of workers, male or female, who intend to parent in the near future should be maintained below 30 µg/100g to minimize adverse reproduction health effects to the parent and developing fetus. The adverse effects of lead on reproduction are being actively researched and WISHA encourages the physician to remain abreast of recent developments in the area to best advise pregnant workers or workers planning to conceive children.

(B) The spectrum of health effects caused by lead exposure can be subdivided into five developmental states; normal, physiological changes of uncertain significance, pathophysiological changes, overt symptoms (morbidity), and mortality. Within this process there are no sharp distinctions, but rather a continuum of effects. Boundaries between categories overlap due to the wide variation of individual responses and exposures in the working population. WISHA's development of the lead standard focused on pathophysiological changes as well as later stages of disease.

(I) Heme synthesis inhibition.

a) The earliest demonstrated effect of lead involves its ability to inhibit at least two enzymes of the heme synthesis pathway at very low blood levels. Inhibition of delta aminolevulinic acid dehydrase (ALA-D) which catalyzes the conversion of delta-aminolevulinic acid (ALA) to protoporphyrin is observed at a blood lead level below 20 $\mu$ g/100g whole blood. At a blood lead level of 40  $\mu$ g/100g, more than twenty percent of the population would have seventy percent inhibition of ALA-D. There is an exponential increase in ALA excretion at blood lead levels greater than 40  $\mu$ g/100g.

b) Another enzyme, ferrochelatase, is also inhibited at low blood lead levels. Inhibition of ferrochelatase leads to increased free erythrocyte protoporphyrin (FEP) in the blood which can then bind to zinc to yield zinc protoporphyrin. At a blood lead level of 50  $\mu$ g/100g or greater, nearly one hundred percent of the population will have an increase FEP. There is also an exponential relationship between blood lead levels greater than 40  $\mu$ g/100g and the associated ZPP level, which has led to the development of the ZPP screening test for lead exposure.

c) While the significance of these effects is subject to debate, it is WISHA's position that these enzyme disturbances are early stages of a disease process which may eventually result in the clinical symptoms of lead poisoning. Whether or not the effects do progress to the later stages of clinical disease, disruption of these enzyme processes over a working lifetime is considered to be a material impairment of health.

d) One of the eventual results of lead-induced inhibition of enzymes in the heme synthesis pathway is anemia which can be asymptomatic if mild but associated with a wide array of symptoms including dizziness, fatigue, and tachycardia when more severe. Studies have indicated that lead levels as low as 50  $\mu$ g/100g can be associated with a definite decreased hemoglobin, although most cases of lead-induced anemia, as well as shortened red-cell survival times, occur at lead levels exceeding 80  $\mu$ g/100g. Inhibited hemoglobin synthesis is more common in chronic cases whereas shortened erythrocyte life span is more common in acute cases.

e) In lead-induced anemias, there is usually a reticulocytosis along with the presence of basophilic stippling, and ringed sideroblasts, although none of the above are pathognomonic for lead-induced anemia.

(II) Neurological effects.

a) Inorganic lead had been found to have toxic effects on both the central and peripheral nervous systems. The earliest stage of lead-induced central nervous system effects first manifest themselves in the form of behavioral disturbances and central nervous system symptoms including irritability, restlessness, insomnia and other sleep disturbances, fatigue, vertigo, headache, poor memory, tremor, depression, and apathy. With more severe exposure, symptoms can progress to drowsiness, stupor, hallucinations, delirium, convulsions and coma.

b) The most severe and acute form of lead poisoning which usually follows ingestion or inhalation of large amounts of lead is acute encephalopathy which may arise precipitously with the onset of intractable seizures, coma, cardiorespiratory arrest, and death within 48 hours.

c) While there is disagreement about what exposure levels are needed to produce the earliest symptoms, most experts agree that symptoms definitely can occur at blood lead levels of 60  $\mu$ g/100g whole blood and therefore recommend a 40  $\mu$ g/100g maximum. The central nervous system effects frequently are not reversible following discontinued exposure or chelation therapy and when improvement does occur, it is almost always only partial.

d) The peripheral neuropathy resulting from lead exposure characteristically involves only motor function with minimal sensory damage and has a marked predilection for the extensor muscles of the most active extremity. The peripheral neuropathy can occur with varying degrees of severity. The earliest and mildest form which can be detected in workers with blood lead levels as low as 50  $\mu$ g/100g is manifested by slowing or motor nerve conduction velocity often without clinical symptoms. With progression of the neuropathy there is development of painless extensor muscle weakness usually involving the extensor muscles of the fingers and hand in the most active upper extremity, followed in severe cases by wrist drop, much less commonly, foot drop.

e) In addition to slowing of nerve conduction, electromyographical studies in patients with blood lead levels greater than 50  $\mu$ g/100g have demonstrated a decrease in the number of acting motor unit potentials, an increase in the duration of motor unit potentials, and spontaneous pathological activity including fibrillations and fasciculation. Whether these effects occur at levels of 40  $\mu$ g/100g is undetermined.

f) While the peripheral neuropathies can occasionally be reversed with therapy, again such recovery is not (~~assured~~) ensured particularly in the more severe neuropathies and often improvement is only partial. The lack of reversibility is felt to be due in part to segmental demyelination.

(III) Gastrointestinal. Lead may also effect the gastrointestinal system producing abdominal colic or diffuse abdominal pain, constipation, obstipation, diarrhea, anorexia, nausea and vomiting. Lead colic rarely develops at blood lead levels below 80  $\mu$ g/100g.

(IV) Renal.

a) Renal toxicity represents one of the most serious health effects of lead poisoning. In the early stages of disease nuclear inclusion bodies can frequently be identified in proximal renal tubular cells. Renal functions remain normal and the changes in this stage are probably reversible. With more advanced disease there is progressive interstitial fibrosis and impaired renal function. Eventually extensive interstitial fibrosis ensues with sclerotic glomeruli and dilated and atrophied proximal tubules; all represent end stage kidney disease. Azotemia can be progressive, eventually resulting in frank uremia necessitating dialysis. There is occasionally associated hypertension and hyperuricemia with or without gout.

b) Early kidney disease is difficult to detect. The urinalysis is normal in early lead nephropathy and the blood urea nitrogen and serum creatinine increase only when two-thirds of kidney function is lost. Measurement of creatinine clearance can often detect earlier disease as can other methods of measurement of glomerular filtration rate. An abnormal Ca-EDTA mobilization test has been used to differentiate between lead-induced and other nephropathies, but this pro-

cedure is not widely accepted. A form of Fanconi syndrome with aminoaciduria, glycosuria, and hyperphosphaturia indicating severe injury to the proximal renal tubules is occasionally seen in children.

(V) Reproductive effects.

a) Exposure to lead can have serious effects on reproductive function in both males and females. In male workers exposed to lead there can be a decrease in sexual drive, impotence, decreased ability to produce healthy sperm, and sterility. Malformed sperm (teratospermia), decreased number of sperm (hypospermia), and sperm with decreased motility (asthenospermia) can occur. Teratospermia has been noted at mean blood lead levels of 53  $\mu\text{g}/100\text{g}$  and hypospermia and asthenospermia at 41  $\mu\text{g}/100\text{g}$ . Furthermore, there appears to be a dose-response relationship for teratospermia in lead exposed workers.

b) Women exposed to lead may experience menstrual disturbances including dysmenorrhea, menorrhagia and amenorrhea. Following exposure to lead, women have a higher frequency of sterility, premature births, spontaneous miscarriages, and stillbirths.

c) Germ cells can be affected by lead and cause genetic damage in the egg or sperm cells before conception and result in failure to implant, miscarriage, stillbirth, or birth defects.

d) Infants of mothers with lead poisoning have a higher mortality during the first year and suffer from lowered birth weights, slower growth, and nervous system disorders.

e) Lead can pass through the placental barrier and lead levels in the mother's blood are comparable to concentrations of lead in the umbilical cord at birth. Transplacental passage becomes detectable at twelve-fourteen weeks of gestation and increases until birth.

f) There is little direct data on damage to the fetus from exposure to lead but it is generally assumed that the fetus and newborn would be at least as susceptible to neurological damage as young children. Blood lead levels of 50-60  $\mu\text{g}/100\text{g}$  in children can cause significant neurobehavioral impairments, and there is evidence of hyperactivity at blood levels as low as 25  $\mu\text{g}/100\text{g}$ . Given the overall body of literature concerning the adverse health effects of lead in children, WISHA feels that the blood lead level in children should be maintained below 30  $\mu\text{g}/100\text{g}$  with a population mean of 15  $\mu\text{g}/100\text{g}$ . Blood lead levels in the fetus and newborn likewise should not exceed 30  $\mu\text{g}/100\text{g}$ .

g) Because of lead's ability to pass through the placental barrier and also because of the demonstrated adverse effects of lead on reproductive function in both males and females as well as the risk of genetic damage of lead on both the ovum and sperm, WISHA recommends a 30  $\mu\text{g}/100\text{g}$  maximum permissible blood lead level in both males and females who wish to bear children.

(VI) Other toxic effects.

a) Debate and research continue on the effects of lead on the human body. Hypertension has frequently been noted in occupationally exposed individuals although it is difficult to assess whether this is due to lead's adverse effects on the kidneys or if some other mechanism is involved.

b) Vascular and electrocardiographic changes have been detected but have not been well characterized. Lead is thought to impair thyroid function and interfere with the pitu-

itary-adrenal axis, but again these effects have not been well defined.

(iv) Medical evaluation.

(A) The most important principle in evaluating a worker for any occupational disease including lead poisoning is a high index of suspicion on the part of the examining physician. As discussed in Section (ii), lead can affect numerous organ systems and produce a wide array of signs and symptoms, most of which are nonspecific and subtle in nature at least in the early stages of disease. Unless serious concern for lead toxicity is present, many of the early clues to diagnosis may easily be overlooked.

(B) The crucial initial step in the medical evaluation is recognizing that a worker's employment can result in exposure to lead. The worker will frequently be able to define exposures to lead and lead-containing materials but often will not volunteer this information unless specifically asked. In other situations the worker may not know of any exposures to lead but the suspicion might be raised on the part of the physician because of the industry or occupation of the worker. Potential occupational exposure to lead and its compounds occur in at least one twenty occupations, including lead smelting, the manufacture of lead storage batteries, the manufacture of lead pigments and products containing pigments, solder manufacture, shipbuilding and ship repair, auto manufacturing, construction, and painting.

(C) Once the possibility for lead exposure is raised, the focus can then be directed toward eliciting information from the medical history, physical exam, and finally from laboratory data to evaluate the worker for potential lead toxicity.

(D) A complete and detailed work history is important in the initial evaluation. A listing of all previous employment with information on work processes, exposure to fumes or dust, known exposures to lead or other toxic substances, respiratory protection used, and previous medical surveillance should all be included in the worker's record. Where exposure to lead is suspected, information concerning on-the-job personal hygiene, smoking or eating habits in work areas, laundry procedures, and use of any protective clothing or respiratory protection equipment should be noted. A complete work history is essential in the medical evaluation of a worker with suspected lead toxicity, especially when long-term effects such as neurotoxicity and nephrotoxicity are considered.

(E) The medical history is also of fundamental importance and should include a listing of all past and current medical conditions, current medications including proprietary drug intake, previous surgeries and hospitalizations, allergies, smoking history, alcohol consumption, and also nonoccupational lead exposures such as hobbies (hunting, riflery). Also known childhood exposures should be elicited. Any previous history of hematological, neurological, gastrointestinal, renal, psychological, gynecological, genetic, or reproductive problems should be specifically noted.

(F) A careful and complete review of systems must be performed to assess both recognized complaints and subtle or slowly acquired symptoms which the worker might not appreciate as being significant. The review of symptoms should include the following:

General	- Weight loss, fatigue, decreased appetite.
Head, Eyes, Ears, Nose, Throat (HEENT)	- Headaches, visual disturbance or decreased visual acuity, hearing deficits or tinnitus, pigmentation of the oral mucosa, or metallic taste in mouth.
Cardiopulmonary	- Shortness of breath, cough, chest pains, palpitations, or orthopnea.
Gastrointestinal	- Nausea, vomiting, heartburn, abdominal pain, constipation or diarrhea.
Neurologic	- Irritability, insomnia, weakness (fatigue), dizziness, loss of memory, confusion, hallucinations, incoordination, ataxia, decreased strength in hands or feet, disturbance in gait, difficulty in climbing stairs, or seizures.
Hematologic	- Pallor, easy fatigability, abnormal blood loss, melena.
Reproductive (male or female and spouse where relevant)	- History of infertility, impotence, loss of libido, abnormal menstrual periods, history of miscarriages, stillbirths, or children with birth defects.
Musculoskeletal	- Muscle and joint pains.

(G) The physical examination should emphasize the neurological, gastrointestinal, and cardiovascular systems. The worker's weight and blood pressure should be recorded and the oral mucosa checked for pigmentation characteristic of a possible Burtonian or lead line on the gingiva. It should be noted, however, that the lead line may not be present even in severe lead poisoning if good oral hygiene is practiced.

(H) The presence of pallor on skin examination may indicate an anemia, which if severe might also be associated with a tachycardia. If an anemia is suspected, an active search for blood loss should be undertaken including potential blood loss through the gastrointestinal tract.

(I) A complete neurological examination should include an adequate mental status evaluation including a search for behavioral and psychological disturbances, memory testing, evaluation for irritability, insomnia, hallucinations, and mental clouding. Gait and coordination should be examined along with close observation for tremor. A detailed evaluation of peripheral nerve function including careful sensory and motor function testing is warranted. Strength testing particularly of extensor muscle groups of all extremities is of fundamental importance.

(J) Cranial nerve evaluation should also be included in the routine examination.

(K) The abdominal examination should include auscultation for bowel sounds and abnormal bruits and palpation for organomegaly, masses, and diffuse abdominal tenderness.

(L) Cardiovascular examination should evaluate possible early signs of congestive heart failure. Pulmonary status should be addressed particularly if respirator protection is contemplated.

(M) As part of the medical evaluation, the lead standard requires the following laboratory studies.

(I) Blood lead level.

(II) Hemoglobin and hematocrit determinations, red cell indices, and examination of the peripheral blood smear to evaluate red blood cell morphology.

(III) Blood urea nitrogen.

(IV) Serum creatinine.

(V) Routine urinalysis with microscopic examination.

(VI) A zinc protoporphyrin level.

(N) In addition to the above, the physician is authorized to order any further laboratory or other tests which (~~he or she deems~~) they deem necessary in accordance with sound medical practice. The evaluation must also include pregnancy testing or laboratory evaluation of male fertility if requested by the employee.

(O) Additional tests which are probably not warranted on a routine basis but may be appropriate when blood lead and ZPP levels are equivocal include delta aminolevulinic acid and coproporphyrin concentrations in the urine, and dark-field illumination for detection of basophilic stippling in red blood cells.

(P) If an anemia is detected further studies including a careful examination of the peripheral smear, reticulocyte count, stool for occult blood, serum iron, total iron binding capacity, bilirubin, and, if appropriate vitamin B12 and folate may be of value in attempting to identify the cause of the anemia.

(Q) If a peripheral neuropathy is suspected, nerve conduction studies are warranted both for diagnosis and as a basis to monitor any therapy.

(R) If renal disease is questioned, a twenty-four-hour urine collection for creatinine clearance, protein, and electrolytes may be indicated. Elevated uric acid levels may result from lead-induced renal disease and a serum uric acid level might be performed.

(S) An electrocardiogram and chest X-ray may be obtained as deemed appropriate.

(T) Sophisticated and highly specialized testing should not be done routinely and where indicated should be under the direction of a specialist.

(v) Laboratory evaluation.

(A) The blood level at present remains the single most important test to monitor lead exposure and is the test used in the medical surveillance program under the lead standard to guide employee medical removal. The ZPP has several advantages over the blood lead level. Because of its relatively recent development and the lack of extensive data concerning its interpretation, the ZPP currently remains an ancillary test.

(B) This section will discuss the blood lead level and ZPP in detail and will outline their relative advantages and disadvantages. Other blood tests currently available to evaluate lead exposure will also be reviewed.

(C) The blood lead level is a good index of current or recent lead absorption when there is no anemia present and when the worker has not taken any chelating agents. However, blood lead levels along with urinary lead levels do not necessarily indicate the total body burden of lead and are not adequate measures of past exposure. One reason for this is that lead has a high affinity for bone and up to ninety percent of the body's total lead is deposited there. A very important component of the total lead body burden is lead in soft tissue (liver, kidneys, and brain). This fraction of the lead body burden, the biologically active lead, is not entirely reflected by blood lead levels since it is a function of the dynamics of lead absorption, distribution, deposition in bone and excretion. Following discontinuation of exposure to lead, the excess body burden is only slowly mobilized from bone and other relatively stable stores and excreted. Consequently, a high blood lead level may only represent recent heavy exposure to lead without a significant total body excess and likewise a low blood lead level does not exclude an elevated total body burden of lead.

(D) Also due to its correlation with recent exposures, the blood lead level may vary considerably over short time intervals.

(E) To minimize laboratory error and erroneous results due to contamination, blood specimens must be carefully collected after thorough cleaning of the skin with appropriate methods using lead-free containers and analyzed by a reliable laboratory. Under the standard, samples must be analyzed in laboratories which are approved by the Center for Disease Control (CDC) or which have received satisfactory grades in proficiency testing by the CDC in the previous year. Analysis is to be made using atomic absorption spectrophotometry anodic stripping; voltammetry or any method which meets the accuracy requirements set forth by the standard.

(F) The determination of lead in urine is generally considered a less reliable monitoring technique than analysis of whole blood primarily due to individual variability in urinary excretion capacity as well as the technical difficulty of obtaining accurate twenty-four hour urine collections. In addition, workers with renal insufficiency, whether due to lead or some other cause, may have decreased lead clearance and consequently urine lead levels may underestimate the true lead burden. Therefore, urine lead levels should not be used as a routine test.

(G) The zinc protoporphyrin test, unlike the blood lead determination, measures an adverse metabolic effect of lead and as such is a better indicator of lead toxicity than the level of blood lead itself. The level of ZPP reflects lead absorption over the preceding three to four months, and therefore is a better indicator of lead body burden. The ZPP requires more time than the blood lead to read significantly elevated levels; the return to normal after discontinuing lead exposure is also slower. Furthermore, the ZPP test is simpler, faster, and less expensive to perform and no contamination is possible. Many investigators believe it is the most reliable means of monitoring chronic lead absorption.

(H) Zinc protoporphyrin results from the inhibition of the enzyme ferrochelatase which catalyzes the insertion of an iron molecule into the protoporphyrin molecule, which then becomes heme. If iron is not inserted into the molecule then

zinc, having a greater affinity for protoporphyrin, takes place in the iron, forming ZPP.

(I) An elevation in the level of circulating ZPP may occur at blood lead levels as low as 20-30  $\mu\text{g}/100\text{g}$  in some workers. Once the blood lead level has reached 40  $\mu\text{g}/100\text{g}$  there is more marked rise in the ZPP value from its normal range of less than 100  $\mu\text{g}/100\text{ml}$ . Increases in blood lead levels beyond 40  $\mu\text{g}/100\text{g}$  are associated with exponential increases in ZPP.

(J) Whereas blood lead levels fluctuate over short time spans, ZPP levels remain relatively stable. ZPP is measured directly in red blood cells and is present for the cell's entire one hundred twenty day lifespan. Therefore, the ZPP level in blood reflects the average ZPP production over the previous three to four months and consequently the average lead exposure during that time interval.

(K) It is recommended that a hematocrit be determined whenever a confirmed ZPP of 50  $\mu\text{g}/100\text{ml}$  whole blood is obtained to rule out a significant underlying anemia. If the ZPP is in excess of 100  $\mu\text{g}/100\text{ml}$  and not associated with abnormal elevations in blood lead levels, the laboratory should be checked to be sure the blood leads were determined using atomic absorption spectrophotometry, anodic stripping voltammetry or any method which meets the accuracy requirements set forth by the standard, by a CDC approved laboratory which is experienced in lead level determinations. Repeat periodic blood lead studies should be obtained in all individuals with elevated ZPP levels to be certain that an associated elevated blood lead level has not been missed due to transient fluctuations in blood leads.

(L) ZPP has characteristic fluorescence spectrum with a peak at 594nm which is detectable with a hematofluorimeter. The hematofluorimeter is accurate and portable and can provide on-site, instantaneous results for workers who can be frequently tested via a finger prick.

(M) However, careful attention must be given to calibration and quality control procedures. Limited data on blood lead -ZPP correlations and the ZPP levels which are associated with the adverse health effects discussed in item (ii) are the major limitations of the test. Also it is difficult to correlate ZPP levels with environmental exposure and there is some variation of response with age and sex. Nevertheless, the ZPP promises to be an important diagnostic test for the early detection of lead toxicity and its value will increase as more data is collected regarding its relationship to other manifestations of lead poisoning.

(N) Levels of delta-aminolevulinic acid (ALA) in the urine are also used as a measure of lead exposure. Increasing concentrations of ALA are believed to result from the inhibition of the enzyme delta-aminolevulinic acid dehydrase (ALA-D). Although the test is relatively easy to perform, inexpensive, and rapid, the disadvantages include variability in results, the necessity to collect a complete twenty-four hour urine sample which has a specific gravity greater than 1.010, and also the fact that ALA decomposes in the presence of light.

(O) The pattern of porphyrin excretion in the urine can also be helpful in identifying lead intoxication. With lead poisoning, the urine concentrations of coproporphyrins I and II, porphobilinogen and uroporphyrin I rise. The most important

increase, however, is that of coproporphyrin III; levels may exceed 5,000 µg/l in the urine in lead poisoned individuals, but its correlation with blood lead levels and ZPP are not as good as those of ALA. Increases in urinary porphyrins are not diagnostic of lead toxicity and may be seen in porphyria, some liver diseases, and in patients with high reticulocyte counts.

(vi) Summary.

(A) The WISHA standard for inorganic lead places significant emphasis on the medical surveillance of all workers exposed to levels of inorganic lead above the action level of 30 µg/m<sup>3</sup> TWA. The physician has a fundamental role in this surveillance program, and in the operation of the medical removal protection program.

(B) Even with adequate worker education on the adverse health effects of lead and appropriate training in work practices, personal hygiene and other control measures, the physician has a primary responsibility for evaluating potential lead toxicity in the worker. It is only through a careful and detailed medical and work history, a complete physical examination and appropriate laboratory testing that an accurate assessment can be made. Many of the adverse health effects of lead toxicity are either irreversible or only partially reversible and therefore early detection of disease is very important.

(C) This document outlines the medical monitoring program as defined by the occupational safety and health standard for inorganic lead. It reviews the adverse health effects of lead poisoning and describes the important elements of the history and physical examinations as they relate to these adverse effects.

(D) It is hoped that this review and discussion will give the physician a better understanding of the WISHA standard with the ultimate goal of protecting the health and well-being of the worker exposed to lead under his or her care.

(d) Appendix D. Recommendations to employers concerning high-risk tasks (nonmandatory).

The department advises employers that the following tasks have a high risk for lead overexposure (this list is not complete; other tasks also can result in lead over-exposure):

- Any open flame operation involving lead-containing solder in a manner producing molten solder, including the manufacture or repair of motor vehicle radiators;
- Sanding, cutting or grinding of lead-containing solder;
- Breaking, recycling or manufacture of lead-containing batteries;
- Casting objects using lead, brass, or lead-containing alloys;
- Where lead-containing coatings or paints are present:
  - abrasive blasting
  - welding
  - cutting
  - torch burning
  - manual demolition of structures
  - manual scraping
  - manual sanding
  - heat gun applications
  - power tool cleaning

- rivet busting
- clean-up activities where dry expendable abrasives are used
- abrasive blasting enclosure movement and removal;
- Spray-painting with lead-containing paint;
- Using lead-containing mortar;
- Lead burning;
- Operation or cleaning of shooting facilities where lead bullets are used;
- Formulation or processing of lead-containing pigments or paints;
- Cutting, burning, or melting of lead-containing materials.

The department recommends that annual blood lead testing be offered to all employees potentially overexposed to lead, including those performing the tasks listed above, regardless of air lead levels. Research has shown that air lead levels often do not accurately predict workers' lead overexposure. The blood lead testing will provide the most information if performed during a period of peak lead exposure.

Employers should be aware that the United States Public Health Service has set a goal of eliminating occupational exposures which result in whole blood lead levels of 25 µg/dl or greater. This goal should guide whether employees' blood lead levels indicate lead overexposure.

If blood lead levels are elevated in an employee performing a task associated with lead overexposure, employers should assess the maintenance and effectiveness of exposure controls, hygiene facilities, respiratory protection program, the employee's work practices and personal hygiene, and the employee's respirator use, if any. If a deficiency exists in any of these areas, the employer should correct the problem.

**AMENDATORY SECTION** (Amending WSR 14-07-086, filed 3/18/14, effective 5/1/14)

**WAC 296-62-07540 Formaldehyde.**

**Note:** The requirements in this chapter apply only to agriculture. The general industry requirements relating to formaldehyde have been moved to chapter 296-856 WAC, Formaldehyde.

(1) Scope and application. This standard applies to all occupational exposures to formaldehyde, i.e., from formaldehyde gas, its solutions, and materials that release formaldehyde.

(2) Definitions. For purposes of this standard, the following definitions shall apply:

(a) (~~("Action level" means)~~) **Action level.** A concentration of 0.5 part formaldehyde per million parts of air (0.5 ppm) calculated as an 8-hour time-weighted average (TWA) concentration.

(b) (~~("Approved" means)~~) **Approved.** Approved by the director of the department of labor and industries or (~~(his/her)~~) their authorized representative: Provided, however, That should a provision of this chapter state that approval by an agency or organization other than the department of labor and industries is required, such as Underwriters' Laboratories or the Mine Safety and Health Administra-

tion and the National Institute for Occupational Safety and Health, the provision of WAC 296-800-370 shall apply.

(c) (~~"Authorized person" means~~) **Authorized person.** Any person required by work duties to be present in regulated work areas, or authorized to do so by the employer, by this section of the standard, or by the WISHA Act.

(d) (~~"Director" means~~) **Director.** The director of the department of labor and industries, or (~~his/her~~) their designated representative.

(e) (~~"Emergency" is~~) **Emergency.** Any occurrence, such as but not limited to equipment failure, rupture of containers, or failure of control equipment that results in an uncontrolled release of a significant amount of formaldehyde.

(f) (~~"Employee exposure" means~~) **Employee exposure.** The exposure to airborne formaldehyde which would occur without corrections for protection provided by any respirator that is in use.

(g) (~~"Formaldehyde" means~~) **Formaldehyde.** The chemical substance, HCHO, Chemical Abstracts Service Registry No. 50-00-0.

(3) Permissible exposure limit (PEL).

(a) TWA: The employer (~~shall assure~~) must ensure that no employee is exposed to an airborne concentration of formaldehyde which exceeds 0.75 part formaldehyde per million parts of air as an 8-hour TWA.

(b) Short term exposure limit (STEL): The employer (~~shall assure~~) must ensure that no employee is exposed to an airborne concentration of formaldehyde which exceeds two parts formaldehyde per million parts of air (2 ppm) as a fifteen-minute STEL.

(4) Exposure monitoring.

(a) General.

(i) Each employer who has a workplace covered by this standard (~~shall~~) must monitor employees to determine their exposure to formaldehyde.

(ii) Exception. Where the employer documents, using objective data, that the presence of formaldehyde or formaldehyde-releasing products in the workplace cannot result in airborne concentrations of formaldehyde that would cause any employee to be exposed at or above the action level or the STEL under foreseeable conditions of use, the employer will not be required to measure employee exposure to formaldehyde.

(iii) When an employee's exposure is determined from representative sampling, the measurements used (~~shall~~) must be representative of the employee's full shift or short-term exposure to formaldehyde, as appropriate.

(iv) Representative samples for each job classification in each work area (~~shall~~) must be taken for each shift unless the employer can document with objective data that exposure levels for a given job classification are equivalent for different workshifts.

(b) Initial monitoring. The employer (~~shall~~) must identify all employees who may be exposed at or above the action level or at or above the STEL and accurately determine the exposure of each employee so identified.

(i) Unless the employer chooses to measure the exposure of each employee potentially exposed to formaldehyde, the employer (~~shall~~) must develop a representative sampling

strategy and measure sufficient exposures within each job classification for each workshift to correctly characterize and not underestimate the exposure of any employee within each exposure group.

(ii) The initial monitoring process (~~shall~~) must be repeated each time there is a change in production, equipment, process, personnel, or control measures which may result in new or additional exposure to formaldehyde.

(iii) If the employer receives reports or signs or symptoms of respiratory or dermal conditions associated with formaldehyde exposure, the employer (~~shall~~) must promptly monitor the affected employee's exposure.

(c) Periodic monitoring.

(i) The employer (~~shall~~) must periodically measure and accurately determine exposure to formaldehyde for employees shown by the initial monitoring to be exposed at or above the action level or at or above the STEL.

(ii) If the last monitoring results reveal employee exposure at or above the action level, the employer (~~shall~~) must repeat monitoring of the employees at least every six months.

(iii) If the last monitoring results reveal employee exposure at or above the STEL, the employer (~~shall~~) must repeat monitoring of the employees at least once a year under worst conditions.

(d) Termination of monitoring. The employer may discontinue periodic monitoring for employees if results from two consecutive sampling periods taken at least seven days apart show that employee exposure is below the action level and the STEL. The results must be statistically representative and consistent with the employer's knowledge of the job and work operation.

(e) Accuracy of monitoring. Monitoring (~~shall~~) must be accurate, at the ninety-five percent confidence level, to within plus or minus twenty-five percent for airborne concentrations of formaldehyde at the TWA and the STEL and to within plus or minus thirty-five percent for airborne concentrations of formaldehyde at the action level.

(f) Employee notification of monitoring results. Within fifteen days of receiving the results of exposure monitoring conducted under this standard, the employer (~~shall~~) must notify the affected employees of these results. Notification (~~shall~~) must be in writing, either by distributing copies of the results to the employees or by posting the results. If the employee exposure is over either PEL, the employer (~~shall~~) must develop and implement a written plan to reduce employee exposure to or below both PELs, and give written notice to employees. The written notice (~~shall~~) must contain a description of the corrective action being taken by the employer to decrease exposure.

(g) Observation of monitoring.

(i) The employer (~~shall~~) must provide affected employees or their designated representatives an opportunity to observe any monitoring of employee exposure to formaldehyde required by this standard.

(ii) When observation of the monitoring of employee exposure to formaldehyde requires entry into an area where the use of protective clothing or equipment is required, the employer (~~shall~~) must provide the clothing and equipment to the observer, require the observer to use such clothing and

equipment, and ((~~assure~~)) ensure that the observer complies with all other applicable safety and health procedures.

(5) Regulated areas.

(a) The employer ((~~shall~~)) must establish regulated areas where the concentration of airborne formaldehyde exceeds either the TWA or the STEL and post all entrances and accessways with signs bearing the following information:

DANGER  
FORMALDEHYDE  
IRRITANT AND POTENTIAL CANCER HAZARD  
AUTHORIZED PERSONNEL ONLY

(b) The employer ((~~shall~~)) must limit access to regulated areas to authorized persons who have been trained to recognize the hazards of formaldehyde.

(c) An employer at a multiemployer worksite who establishes a regulated area ((~~shall~~)) must communicate the access restrictions and locations of these areas to other employers with work operations at that worksite.

(6) Methods of compliance.

(a) Engineering controls and work practices. The employer ((~~shall~~)) must institute engineering and work practice controls to reduce and maintain employee exposures to formaldehyde at or below the TWA and the STEL.

(b) Exception. Whenever the employer has established that feasible engineering and work practice controls cannot reduce employee exposure to or below either of the PELs, the employer ((~~shall~~)) must apply these controls to reduce employee exposures to the extent feasible and ((~~shall~~)) must supplement them with respirators which satisfy this standard.

(7) Respiratory protection.

(a) General. For employees who use respirators required by this section, the employer must provide respirators that comply with the requirements of this subsection. Respirators must be used during:

(i) Periods necessary to install or implement feasible engineering and work-practice controls;

(ii) Work operations, such as maintenance and repair activities or vessel cleaning, for which the employer establishes that engineering and work-practice controls are not feasible;

(iii) Work operations for which feasible engineering and work-practice controls are not yet sufficient to reduce exposure to or below the PELs;

(iv) Emergencies.

(b) Respirator program.

(i) The employer must implement a respiratory protection program as required by chapter 296-842 WAC, except WAC 296-842-13005 and 296-842-14005.

(ii) If air-purifying chemical-cartridge respirators are used, the employer must:

(A) Replace the cartridge after three hours of use or at the end of the workshift, whichever occurs first, unless the cartridge contains a NIOSH-certified end-of-service-life indicator (ESLI) to show when breakthrough occurs.

(B) Unless the canister contains a NIOSH-certified ESLI to show when breakthrough occurs, replace canisters used in atmospheres up to 7.5 ppm (10 x PEL) every four hours and industrial-sized canisters used in atmospheres up to 75 ppm (100 x PEL) every two hours, or at the end of the workshift, whichever occurs first.

(c) Respirator selection.

(i) The employer must select appropriate respirators from Table 1 of this section.

TABLE 1  
MINIMUM REQUIREMENTS FOR RESPIRATORY PROTECTION  
AGAINST FORMALDEHYDE

Condition of use or formaldehyde concentration (ppm)	Minimum respirator required <sup>1</sup>
Up to 7.5 ppm (10 x PEL) . . . .	Full facepiece with cartridges or canisters specifically approved for protection against formaldehyde <sup>2</sup> .
Up to 75 ppm (100 x PEL) . . .	Full-face mask with chin style or chest or back mounted type industrial size canister specifically approved for protection against formaldehyde.  Type C supplied-air respirator pressure demand or continuous flow type, with full facepiece, hood, or helmet.
Above 75 ppm or unknown (emergencies) (100 x PEL) . . . . .	Self-contained breathing apparatus (SCBA) with positive-pressure full facepiece.  Combination supplied-air, full facepiece positive-pressure respirator with auxiliary self-contained air supply.
Firefighting . . . . .	SCBA with positive-pressure in full facepiece.
Escape . . . . .	SCBA in demand or pressure demand mode.  Full-face mask with chin style or front or back mounted type industrial size canister specifically approved for protection against formaldehyde.

<sup>1</sup> Respirators specified for use at higher concentrations may be used at lower concentrations.

<sup>2</sup> A half-mask respirator with cartridges specifically approved for protection against formaldehyde can be substituted for the full facepiece respirator providing that effective gas-proof goggles are provided and used in combination with the half-mask respirator.

(ii) The employer must provide a powered air-purifying respirator adequate to protect against formaldehyde exposure to any employee who has difficulty using a negative-pressure respirator.

(8) Protective equipment and clothing. Employers ~~((shall))~~ must comply with the provisions of WAC 296-800-160. When protective equipment or clothing is provided under these provisions, the employer ~~((shall))~~ must provide these protective devices at no cost to the employee and ~~((assure))~~ ensure that the employee wears them.

(a) Selection. The employer ~~((shall))~~ must select protective clothing and equipment based upon the form of formaldehyde to be encountered, the conditions of use, and the hazard to be prevented.

(i) All contact of the eyes and skin with liquids containing one percent or more formaldehyde ~~((shall))~~ must be prevented by the use of chemical protective clothing made of material impervious to formaldehyde and the use of other personal protective equipment, such as goggles and face shields, as appropriate to the operation.

(ii) Contact with irritating or sensitizing materials ~~((shall))~~ must be prevented to the extent necessary to eliminate the hazard.

(iii) Where a face shield is worn, chemical safety goggles are also required if there is a danger of formaldehyde reaching the area of the eye.

(iv) Full body protection ~~((shall))~~ must be worn for entry into areas where concentrations exceed 100 ppm and for emergency reentry into areas of unknown concentration.

(b) Maintenance of protective equipment and clothing.

(i) The employer ~~((shall-assure))~~ must ensure that protective equipment and clothing that has become contaminated with formaldehyde is cleaned or laundered before its reuse.

(ii) When ventilating formaldehyde-contaminated clothing and equipment, the employer ~~((shall))~~ must establish a storage area so that employee exposure is minimized. Containers for contaminated clothing and equipment and storage areas ~~((shall))~~ must have labels and signs containing the following information:

DANGER

FORMALDEHYDE-CONTAMINATED (CLOTHING) EQUIPMENT  
AVOID INHALATION AND SKIN CONTACT

(iii) The employer ~~((shall-assure))~~ must ensure that only persons trained to recognize the hazards of formaldehyde remove the contaminated material from the storage area for purposes of cleaning, laundering, or disposal.

(iv) The employer ~~((shall-assure))~~ must ensure that no employee takes home equipment or clothing that is contaminated with formaldehyde.

(v) The employer ~~((shall))~~ must repair or replace all required protective clothing and equipment for each affected employee as necessary to assure its effectiveness.

(vi) The employer ~~((shall))~~ must inform any person who launders, cleans, or repairs such clothing or equipment of formaldehyde's potentially harmful effects and of procedures to safely handle the clothing and equipment.

(9) Hygiene protection.

(a) The employer shall provide change rooms, as described in WAC ~~((296-24-120))~~ 296-800-230 for employees who are required to change from work clothing into protective clothing to prevent skin contact with formaldehyde.

(b) If employees' skin may become splashed with solutions containing one percent or greater formaldehyde, for example because of equipment failure or improper work

practices, the employer ~~((shall))~~ must provide conveniently located quick drench showers and ~~((assure))~~ ensure that affected employees use these facilities immediately.

(c) If there is any possibility that an employee's eyes may be splashed with solutions containing 0.1 percent or greater formaldehyde, the employer ~~((shall))~~ must provide acceptable eyewash facilities within the immediate work area for emergency use.

(10) Housekeeping. For operations involving formaldehyde liquids or gas, the employer ~~((shall))~~ must conduct a program to detect leaks and spills, including regular visual inspections.

(a) Preventative maintenance of equipment, including surveys for leaks, shall be undertaken at regular intervals.

(b) In work areas where spillage may occur, the employer ~~((shall))~~ must make provisions to contain the spill, to decontaminate the work area, and to dispose of the waste.

(c) The employer ~~((shall-assure))~~ must ensure that all leaks are repaired and spills are cleaned promptly by employees wearing suitable protective equipment and trained in proper methods for cleanup and decontamination.

(d) Formaldehyde-contaminated waste and debris resulting from leaks or spills ~~((shall))~~ must be placed for disposal in sealed containers bearing a label warning of formaldehyde's presence and of the hazards associated with formaldehyde.

(11) Emergencies. For each workplace where there is the possibility of an emergency involving formaldehyde, the employer ~~((shall-assure))~~ must ensure appropriate procedures are adopted to minimize injury and loss of life. Appropriate procedures ~~((shall))~~ must be implemented in the event of an emergency.

(12) Medical surveillance.

(a) Employees covered.

(i) The employer ~~((shall))~~ must institute medical surveillance programs for all employees exposed to formaldehyde at concentrations at or exceeding the action level or exceeding the STEL.

(ii) The employer ~~((shall))~~ must make medical surveillance available for employees who develop signs and symptoms of overexposure to formaldehyde and for all employees exposed to formaldehyde in emergencies. When determining whether an employee may be experiencing signs and symptoms of possible overexposure to formaldehyde, the employer may rely on the evidence that signs and symptoms associated with formaldehyde exposure will occur only in exceptional circumstances when airborne exposure is less than 0.1 ppm and when formaldehyde is present in materials in concentrations less than 0.1 percent.

(b) Examination by a physician. All medical procedures, including administration of medical disease questionnaires, ~~((shall))~~ must be performed by or under the supervision of a licensed physician and shall be provided without cost to the employee, without loss of pay, and at a reasonable time and place.

(c) Medical disease questionnaire. The employer ~~((shall))~~ must make the following medical surveillance available to employees prior to assignment to a job where formaldehyde exposure is at or above the action level or above the STEL and annually thereafter. The employer ~~((shall))~~ must

also make the following medical surveillance available promptly upon determining that an employee is experiencing signs and symptoms indicative of possible overexposure to formaldehyde.

(i) Administration of a medical disease questionnaire, such as in Appendix D, which is designed to elicit information on work history, smoking history, any evidence of eye, nose, or throat irritation; chronic airway problems or hyperreactive airway disease; allergic skin conditions or dermatitis; and upper or lower respiratory problems.

(ii) A determination by the physician, based on evaluation of the medical disease questionnaire, of whether a medical examination is necessary for employees not required to wear respirators to reduce exposure to formaldehyde.

(d) Medical examinations. Medical examinations ~~((shall))~~ must be given to any employee who the physician feels, based on information in the medical disease questionnaire, may be at increased risk from exposure to formaldehyde and at the time of initial assignment and at least annually thereafter to all employees required to wear a respirator to reduce exposure to formaldehyde. The medical examination ~~((shall))~~ must include:

(i) A physical examination with emphasis on evidence of irritation or sensitization of the skin and respiratory system, shortness of breath, or irritation of the eyes.

(ii) Laboratory examinations for respirator wearers consisting of baseline and annual pulmonary function tests. As a minimum, these tests ~~((shall))~~ must consist of forced vital capacity (FVC), forced expiratory volume in one second (FEV1), and forced expiratory flow (FEF).

(iii) Any other test which the examining physician deems necessary to complete the written opinion.

(iv) Counseling of employees having medical conditions that would be directly or indirectly aggravated by exposure to formaldehyde on the increased risk of impairment of their health.

(e) Examinations for employees exposed in an emergency. The employer ~~((shall))~~ must make medical examinations available as soon as possible to all employees who have been exposed to formaldehyde in an emergency.

(i) The examination ~~((shall))~~ must include a medical and work history with emphasis on any evidence of upper or lower respiratory problems, allergic conditions, skin reaction or hypersensitivity, and any evidence of eye, nose, or throat irritation.

(ii) Other examinations ~~((shall))~~ must consist of those elements considered appropriate by the examining physician.

(f) Information provided to the physician. The employer ~~((shall))~~ must provide the following information to the examining physician:

(i) A copy of this standard and Appendices A, C, D, and E;

(ii) A description of the affected employee's job duties as they relate to the employee's exposure to formaldehyde;

(iii) The representative exposure level for the employee's job assignment;

(iv) Information concerning any personal protective equipment and respiratory protection used or to be used by the employee; and

(v) Information from previous medical examinations of the affected employee within the control of the employer.

(vi) In the event of a nonroutine examination because of an emergency, the employer ~~((shall))~~ must provide to the physician as soon as possible: A description of how the emergency occurred and the exposure the victim may have received.

(g) Physician's written opinion.

(i) For each examination required under this standard, the employer shall obtain a written opinion from the examining physician. This written opinion ~~((shall))~~ must contain the results of the medical examination except that it ~~((shall))~~ must not reveal specific findings or diagnoses unrelated to occupational exposure to formaldehyde. The written opinion ~~((shall))~~ must include:

(A) The physician's opinion as to whether the employee has any medical condition that would place the employee at an increased risk of material impairment of health from exposure to formaldehyde;

(B) Any recommended limitations on the employee's exposure or changes in the use of personal protective equipment, including respirators;

(C) A statement that the employee has been informed by the physician of any medical conditions which would be aggravated by exposure to formaldehyde, whether these conditions may have resulted from past formaldehyde exposure or from exposure in an emergency, and whether there is a need for further examination or treatment.

(ii) The employer ~~((shall))~~ must provide for retention of the results of the medical examination and tests conducted by the physician.

(iii) The employer ~~((shall))~~ must provide a copy of the physician's written opinion to the affected employee within fifteen days of its receipt.

(h) Medical removal.

(i) The provisions of this subdivision apply when an employee reports significant irritation of the mucosa of the eyes or of the upper airways, respiratory sensitization, dermal irritation, or dermal sensitization attributed to workplace formaldehyde exposure. Medical removal provisions do not apply in case of dermal irritation or dermal sensitization when the product suspected of causing the dermal condition contains less than 0.05% formaldehyde.

(ii) An employee's report of signs or symptoms of possible overexposure to formaldehyde ~~((shall))~~ must be evaluated by a physician selected by the employer pursuant to (c) of this subsection. If the physician determines that a medical examination is not necessary under (c)(ii) of this subsection, there ~~((shall))~~ must be a two-week evaluation and remediation period to permit the employer to ascertain whether the signs or symptoms subside untreated or with the use of creams, gloves, first-aid treatment, or personal protective equipment. Industrial hygiene measures that limit the employee's exposure to formaldehyde may also be implemented during this period. The employee ~~((shall))~~ must be referred immediately to a physician prior to expiration of the two-week period if the signs or symptoms worsen. Earnings, seniority, and benefits may not be altered during the two-week period by virtue of the report.

(iii) If the signs or symptoms have not subsided or been remedied by the end of the two-week period, or earlier if signs or symptoms warrant, the employee ~~((shall))~~ must be examined by a physician selected by the employer. The physician ~~((shall))~~ must presume, absent contrary evidence, that observed dermal irritation or dermal sensitization are not attributable to formaldehyde when products to which the affected employee is exposed contain less than 0.1% formaldehyde.

(iv) Medical examinations ~~((shall))~~ must be conducted in compliance with the requirements of (e)(i) and (ii) of this subsection. Additional guidelines for conducting medical exams are contained in WAC 296-62-07546, Appendix C.

(v) If the physician finds that significant irritation of the mucosa of the eyes or the upper airways, respiratory sensitization, dermal irritation, or dermal sensitization result from workplace formaldehyde exposure and recommends restrictions or removal. The employer ~~((shall))~~ must promptly comply with the restrictions or recommendations of removal. In the event of a recommendation of removal, the employer ~~((shall))~~ must remove the affected employee from the current formaldehyde exposure and if possible, transfer the employee to work having no or significantly less exposure to formaldehyde.

(vi) When an employee is removed pursuant to item (v) of this subdivision, the employer ~~((shall))~~ must transfer the employee to comparable work for which the employee is qualified or can be trained in a short period (up to six months), where the formaldehyde exposures are as low as possible, but not higher than the action level. The employer ~~((shall))~~ must maintain the employee's current earnings, seniority, and other benefits. If there is no such work available, the employer ~~((shall))~~ must maintain the employee's current earnings, seniority, and other benefits until such work becomes available, until the employee is determined to be unable to return to workplace formaldehyde exposure, until the employee is determined to be able to return to the original job status, or for six months, whichever comes first.

(vii) The employer ~~((shall))~~ must arrange for a follow-up medical examination to take place within six months after the employee is removed pursuant to this subsection. This examination ~~((shall))~~ must determine if the employee can return to the original job status, or if the removal is to be permanent. The physician ~~((shall))~~ must make a decision within six months of the date the employee was removed as to whether the employee can be returned to the original job status, or if the removal is to be permanent.

(viii) An employer's obligation to provide earnings, seniority, and other benefits to a removed employee may be reduced to the extent that the employee receives compensation for earnings lost during the period of removal either from a publicly or employer-funded compensation program or from employment with another employer made possible by virtue of the employee's removal.

(ix) In making determinations of the formaldehyde content of materials under this subsection the employer may rely on objective data.

(i) Multiple physician review.

(i) After the employer selects the initial physician who conducts any medical examination or consultation to deter-

mine whether medical removal or restriction is appropriate, the employee may designate a second physician to review any findings, determinations, or recommendations of the initial physician and to conduct such examinations, consultations, and laboratory tests as the second physician deems necessary and appropriate to evaluate the effects of formaldehyde exposure and to facilitate this review.

(ii) The employer ~~((shall))~~ must promptly notify an employee of the right to seek a second medical opinion after each occasion that an initial physician conducts a medical examination or consultation for the purpose of medical removal or restriction.

(iii) The employer may condition its participation in, and payment for, the multiple physician review mechanism upon the employee doing the following within fifteen days after receipt of the notification of the right to seek a second medical opinion, or receipt of the initial physician's written opinion, whichever is later:

(A) The employee informs the employer of the intention to seek a second medical opinion; and

(B) The employee initiates steps to make an appointment with a second physician.

(iv) If the findings, determinations, or recommendations of the second physician differ from those of the initial physician, then the employer and the employee ~~((shall assure))~~ must ensure that efforts are made for the two physicians to resolve the disagreement. If the two physicians are unable to quickly resolve their disagreement, then the employer and the employee through their respective physicians ~~((shall))~~ must designate a third physician who ~~((shall))~~ must be a specialist in the field at issue:

(A) To review the findings, determinations, or recommendations of the prior physicians; and

(B) To conduct such examinations, consultations, laboratory tests, and discussions with prior physicians as the third physician deems necessary to resolve the disagreement of the prior physicians.

(v) In the alternative, the employer and the employee or authorized employee representative may jointly designate such third physician.

(vi) The employer ~~((shall))~~ must act consistent with the findings, determinations, and recommendations of the third physician, unless the employer and the employee reach an agreement which is otherwise consistent with the recommendations of at least one of the three physicians.

(13) Hazard communication.

(a) General. Notwithstanding any exemption granted in WAC 296-901-140 for wood products, each employer who has a workplace covered by this standard ~~((shall))~~ must comply with the requirements of WAC 296-901-140. The definitions of the hazard communication standard shall apply under this standard.

(i) The following shall be subject to the hazard communication requirements of this section: Formaldehyde gas, all mixtures or solutions composed of greater than 0.1 percent formaldehyde, and materials capable of releasing formaldehyde into the air under reasonably foreseeable concentrations reaching or exceeding 0.1 ppm.

(ii) As a minimum, specific health hazards that the employer ~~((shall))~~ must address are: Cancer, irritation and

sensitization of the skin and respiratory system, eye and throat irritation, and acute toxicity.

(b) Manufacturers and importers who produce or import formaldehyde or formaldehyde-containing products (~~(shall)~~) must provide downstream employers using or handling these products with an objective determination through the required labels and SDSs as required by WAC 296-901-140.

(c) Labels.

(i) The employer (~~(shall assure)~~) must ensure that hazard warning labels complying with the requirements of WAC 296-901-140 are affixed to all containers of materials listed in (a)(i) of this subsection, except to the extent that (a)(i) of this subsection is inconsistent with this item.

(ii) Information on labels. As a minimum, for all materials listed in (a)(i) of this subsection, capable of releasing formaldehyde at levels of 0.1 ppm to 0.5 ppm, labels (~~(shall)~~) must identify that the product contains formaldehyde: List the name and address of the responsible party; and state that physical and health hazard information is readily available from the employer and from safety data sheets.

(iii) For materials listed in (a)(i) of this subsection, capable of releasing formaldehyde at levels above 0.5 ppm, labels shall appropriately address all the hazards as defined in WAC 296-901-140, and Appendices A and B, including respiratory sensitization, and (~~(shall)~~) must contain the words "Potential Cancer Hazard."

(iv) In making the determinations of anticipated levels of formaldehyde release, the employer may rely on objective data indicating the extent of potential formaldehyde release under reasonably foreseeable conditions of use.

(v) Substitute warning labels. The employer may use warning labels required by other statutes, regulations, or ordinances which impart the same information as the warning statements required by this subitem.

(d) Safety data sheets.

(i) Any employer who uses formaldehyde-containing materials listed in (a)(i) of this subsection (~~(shall)~~) must comply with the requirements of WAC 296-901-140 with regard to the development and updating of safety data sheets.

(ii) Manufacturers, importers, and distributors of formaldehyde containing materials listed in (a)(i) of this subsection (~~(shall assure)~~) must ensure that safety data sheets and updated information are provided to all employers purchasing such materials at the time of the initial shipment and at the time of the first shipment after a safety data sheet is updated.

(e) Written hazard communication program. The employer (~~(shall)~~) must develop, implement, and maintain at the workplace, a written hazard communication program for formaldehyde exposures in the workplace, which at a minimum describes how the requirements specified in this section for labels and other forms of warning and safety data sheets, and subsection (14) of this section for employee information and training, will be met. Employees in multi-employer workplaces (~~(shall)~~) must comply with the requirements of WAC 296-901-140.

(14) Employee information and training.

(a) Participation. The employer (~~(shall assure)~~) must ensure that all employees who are assigned to workplaces where there is a health hazard from formaldehyde participate in a training program, except that where the employer can

show, using objective data, that employees are not exposed to formaldehyde at or above 0.1 ppm, the employer is not required to provide training.

(b) Frequency. Employers (~~(shall)~~) must provide such information and training to employees at the time of their initial assignment and whenever a new exposure to formaldehyde is introduced into their work area. The training (~~(shall)~~) must be repeated at least annually.

(c) Training program. The training program (~~(shall)~~) must be conducted in a manner which the employee is able to understand and (~~(shall)~~) must include:

(i) A discussion of the contents of this regulation and the contents of the safety data sheet;

(ii) The purpose for and a description of the medical surveillance program required by this standard, including:

(A) A description of the potential health hazards associated with exposure to formaldehyde and a description of the signs and symptoms of exposure to formaldehyde.

(B) Instructions to immediately report to the employer the development of any adverse signs or symptoms that the employee suspects is attributable to formaldehyde exposure.

(iii) Description of operations in the work area where formaldehyde is present and an explanation of the safe work practices appropriate for limiting exposure to formaldehyde in each job;

(iv) The purpose for, proper use of, and limitations of personal protective clothing;

(v) Instructions for the handling of spills, emergencies, and clean-up procedures;

(vi) An explanation of the importance of engineering and work practice controls for employee protection and any necessary instruction in the use of these controls;

(vii) A review of emergency procedures including the specific duties or assignments of each employee in the event of an emergency; and

(viii) The purpose, proper use, limitations, and other training requirements for respiratory protection as required by chapter 296-842 WAC.

(d) Access to training materials.

(i) The employer (~~(shall)~~) must inform all affected employees of the location of written training materials and (~~(shall)~~) must make these materials readily available, without cost, to the affected employees.

(ii) The employer (~~(shall)~~) must provide, upon request, all training materials relating to the employee training program to the director of labor and industries, or his/her designated representative.

(15) Recordkeeping.

(a) Exposure measurements. The employer (~~(shall)~~) must establish and maintain an accurate record of all measurements taken to monitor employee exposure to formaldehyde. This record (~~(shall)~~) must include:

(i) The date of measurement;

(ii) The operation being monitored;

(iii) The methods of sampling and analysis and evidence of their accuracy and precision;

(iv) The number, durations, time, and results of samples taken;

(v) The types of protective devices worn; and

(vi) The names, job classifications, Social Security numbers, and exposure estimates of the employees whose exposures are represented by the actual monitoring results.

(b) Exposure determinations. Where the employer has determined that no monitoring is required under this standard, the employer ~~((shall))~~ must maintain a record of the objective data relied upon to support the determination that no employee is exposed to formaldehyde at or above the action level.

(c) Medical surveillance. The employer ~~((shall))~~ must establish and maintain an accurate record for each employee subject to medical surveillance under this standard. This record ~~((shall))~~ must include:

(i) The name and Social Security number of the employee;

(ii) The physician's written opinion;

(iii) A list of any employee health complaints that may be related to exposure to formaldehyde; and

(iv) A copy of the medical examination results, including medical disease questionnaires and results of any medical tests required by the standard or mandated by the examining physician.

(d) Record retention. The employer ~~((shall))~~ must retain records required by this standard for at least the following periods:

(i) Exposure records and determinations ~~((shall))~~ must be kept for at least thirty years; and

(ii) Medical records ~~((shall))~~ must be kept for the duration of employment plus thirty years.

(e) Availability of records.

(i) Upon request, the employer ~~((shall))~~ must make all records maintained as a requirement of this standard available for examination and copying to the director of labor and industries, or ~~((his/her))~~ their designated representative.

(ii) The employer ~~((shall))~~ must make employee exposure records, including estimates made from representative monitoring and available upon request for examination and copying, to the subject employee, or former employee, and employee representatives in accordance with chapter 296-802 WAC.

(iii) Employee medical records required by this standard ~~((shall))~~ must be provided upon request for examination and copying, to the subject employee, or former employee, or to anyone having the specific written consent of the subject employee or former employee in accordance with chapter 296-802 WAC.

AMENDATORY SECTION (Amending WSR 14-07-086, filed 3/18/14, effective 5/1/14)

**WAC 296-62-07544 Appendix B—Sampling strategy and analytical methods for formaldehyde.** (1) To protect the health of employees, exposure measurements must be unbiased and representative of employee exposure. The proper measurement of employee exposure requires more than a token commitment on the part of the employer. WISHA's mandatory requirements establish a baseline; under the best of circumstances all questions regarding employee exposure will be answered. Many employers, however, will wish to conduct more extensive monitoring before undertak-

ing expensive commitments, such as engineering controls, to ~~((assure))~~ ensure that the modifications are truly necessary. The following sampling strategy, which was developed at NIOSH by Nelson A. Leidel, Kenneth A. Busch, and Jeremiah R. Lynch and described in NIOSH publication No. 77-173 (Occupational Exposure Sampling Strategy Manual) will assist the employer in developing a strategy for determining the exposure of his or her employees.

(2) There is no one correct way to determine employee exposure. Obviously, measuring the exposure of every employee exposed to formaldehyde will provide the most information on any given day. Where few employees are exposed, this may be a practical solution. For most employers, however, use of the following strategy will give just as much information at less cost.

(3) Exposure data collected on a single day will not automatically guarantee the employer that ~~((his or her))~~ their workplace is always in compliance with the formaldehyde standard. This does not imply, however, that it is impossible for an employer to be sure that ~~((his or her))~~ their worksite is in compliance with the standard. Indeed, a properly designed sampling strategy showing that all employees are exposed below the PELs, at least with a ninety-five percent certainty, is compelling evidence that the exposure limits are being achieved provided that measurements are conducted using valid sampling strategy and approved analytical methods.

(4) There are two PELs, the TWA concentration and the STEL.

(a) Most employers will find that one of these two limits is more critical in the control of their operations, and WISHA expects that the employer will concentrate monitoring efforts on the critical component.

(b) If the more difficult exposure is controlled, this information, along with calculations to support the assumptions, should be adequate to show that the other exposure limit is also being achieved.

(5) Sampling strategy.

(a) Determination of the need for exposure measurements.

(b) The employer must determine whether employees may be exposed to concentrations in excess of the action level. This determination becomes the first step in an employee exposure monitoring program that minimizes employer sampling burdens while providing adequate employee protection.

(c) If employees may be exposed above the action level, the employer must measure exposure. Otherwise, an objective determination that employee exposure is low provides adequate evidence that exposure potential has been examined.

(d) The employer should examine all available relevant information, e.g., insurance company and trade association data and information from suppliers or exposure data collected from similar operations.

(e) The employer may also use previously-conducted sampling including area monitoring. The employer must make a determination relevant to each operation although this need not be on a separate piece of paper.

(f) If the employer can demonstrate conclusively that no employee is exposed above the action level or the STEL

through the use of objective data, the employer need proceed no further on employee exposure monitoring until such time that conditions have changed and the determination is no longer valid.

(g) If the employer cannot determine that employee exposure is less than the action level and the STEL, employee exposure monitoring will have to be conducted.

(6) Workplace material survey.

(a) The primary purpose of a survey of raw material is to determine if formaldehyde is being used in the work environment and if so, the conditions under which formaldehyde is being used.

(b) The first step is to tabulate all situations where formaldehyde is used in a manner such that it may be released into the workplace atmosphere or contaminate the skin. This information should be available through analysis of company records and information on the SDS available through provisions of this standard and the hazard communication standard.

(c) If there is an indication from materials handling records and accompanying SDS that formaldehyde is being used in the following types of processes or work operations, there may be a potential for releasing formaldehyde into the workplace atmosphere:

(i) Any operation that involves grinding, sanding, sawing, cutting, crushing, screening, sieving, or any other manipulation of material that generates formaldehyde-bearing dust.

(ii) Any processes where there have been employee complaints or symptoms indicative of exposure to formaldehyde.

(iii) Any liquid or spray process involving formaldehyde.

(iv) Any process that uses formaldehyde in preserved tissue.

(v) Any process that involves the heating of a formaldehyde-bearing resin.

Processes and work operations that use formaldehyde in these manners will probably require further investigation at the worksite to determine the extent of employee monitoring that should be conducted.

(7) Workplace observations.

(a) To this point, the only intention has been to provide an indication as to the existence of potentially exposed employees. With this information, a visit to the workplace is needed to observe work operations, to identify potential health hazards, and to determine whether any employees may be exposed to hazardous concentrations of formaldehyde.

(b) In many circumstances, sources of formaldehyde can be identified through the sense of smell. However, this method of detection should be used with caution because of olfactory fatigue.

(c) Employee location in relation to source of formaldehyde is important in determining if an employee may be significantly exposed to formaldehyde. In most instances, the closer a worker is to the source, the higher the probability that a significant exposure will occur.

(d) Other characteristics should be considered. Certain high temperature operations give rise to higher evaporation rates. Locations of open doors and windows provide natural ventilation that tend to dilute formaldehyde emissions. General room ventilation also provides a measure of control.

(8) Calculation of potential exposure concentrations.

(a) By knowing the ventilation rate in a workplace and the quantity of formaldehyde generated, the employer may be able to determine by calculation if the PELs might be exceeded.

(b) To account for poor mixing of formaldehyde into the entire room, locations of fans and proximity of employees to the work operation, the employer must include a safety factor.

(c) If an employee is relatively close to a source, particularly if ~~((he or she is))~~ they are located downwind, a safety factor of one hundred may be necessary.

(d) For other situations, a factor of ten may be acceptable. If the employer can demonstrate through such calculations that employee exposure does not exceed the action level or the STEL, the employer may use this information as objective data to demonstrate compliance with the standard.

(9) Sampling strategy.

(a) Once the employer determines that there is a possibility of substantial employee exposure to formaldehyde, the employer is obligated to measure employee exposure.

(b) The next step is selection of a maximum risk employee. When there are different processes where employees may be exposed to formaldehyde, a maximum risk employee should be selected for each work operation.

(c) Selection of the maximum risk employee requires professional judgment. The best procedure for selecting the maximum risk employee is to observe employees and select the person closest to the source of formaldehyde. Employee mobility may affect this selection; e.g., if the closest employee is mobile in ~~((his))~~ their tasks, ~~((he))~~ they may not be the maximum risk employee. Air movement patterns and differences in work habits will also affect selection of the maximum risk employee.

(d) When many employees perform essentially the same task, a maximum risk employee cannot be selected. In this circumstance, it is necessary to resort to random sampling of the group of workers. The objective is to select a subgroup of adequate size so that there is a high probability that the random sample will contain at least one worker with high exposure if one exists. The number of persons in the group influences the number that need to be sampled to ensure that at least one individual from the highest ten percent exposure group is contained in the sample. For example, to have ninety percent confidence in the results, if the group size is ten, nine should be sampled; for fifty, only eighteen need to be sampled.

(e) If measurement shows exposure to formaldehyde at or above the action level or the STEL, the employer needs to identify all other employees who may be exposed at or above the action level or STEL and measure or otherwise accurately characterize the exposure of these employees.

(f) Whether representative monitoring or random sampling are conducted, the purpose remains the same to determine if the exposure of any employee is above the action level. If the exposure of the most exposed employee is less than the action level and the STEL, regardless of how the employee is identified, then it is reasonable to assume that measurements of exposure of the other employees in that operation would be below the action level and the STEL.

(10) Exposure measurements.

(a) There is no "best" measurement strategy for all situations. Some elements to consider in developing a strategy are:

- (i) Availability and cost of sampling equipment;
- (ii) Availability and cost of analytic facilities;
- (iii) Availability and cost of personnel to take samples;
- (iv) Location of employees and work operations;
- (v) Intraday and interday variations in the process;
- (vi) Precision and accuracy of sampling and analytic methods; and

(vii) Number of samples needed.

(b) Samples taken for determining compliance with the STEL differ from those that measure the TWA concentration in important ways. STEL samples are best taken in a nonrandom fashion using all available knowledge relating to the area, the individual, and the process to obtain samples during periods of maximum expected concentrations. At least three measurements on a shift are generally needed to spot gross errors or mistakes; however, only the highest value represents the STEL.

(c) If an operation remains constant throughout the workshift, a much greater number of samples would need to be taken over the thirty-two discrete nonoverlapping periods in an 8-hour workshift to verify compliance with a STEL. If employee exposure is truly uniform throughout the workshift, however, an employer in compliance with the 1 ppm TWA would be in compliance with the 2 ppm STEL, and this determination can probably be made using objective data.

(11) Need to repeat the monitoring strategy.

(a) Interday and intraday fluctuations in employee exposure are mostly influenced by the physical processes that generate formaldehyde and the work habits of the employee. Hence, in-plant process variations influence the employer's determination of whether or not additional controls need to be imposed. Measurements that employee exposure is low on a day that is not representative of worst conditions may not provide sufficient information to determine whether or not additional engineering controls should be installed to achieve the PELs.

(b) The person responsible for conducting sampling must be aware of systematic changes which will negate the validity of the sampling results. Systematic changes in formaldehyde exposure concentration for an employee can occur due to:

(i) The employee changing patterns of movement in the workplace;

(ii) Closing of plant doors and windows;

(iii) Changes in ventilation from season to season;

(iv) Decreases in ventilation efficiency or abrupt failure of engineering control equipment; and

(v) Changes in the production process or work habits of the employee.

(c) Any of these changes, if they may result in additional exposure that reaches the next level of action (i.e., 0.5 or 1.0 ppm as an 8-hour average or 2 ppm over fifteen minutes) require the employer to perform additional monitoring to reassess employee exposure.

(d) A number of methods are suitable for measuring employee exposure to formaldehyde or for characterizing emissions within the worksite. The preamble to this standard

describes some methods that have been widely used or subjected to validation testing. A detailed analytical procedure derived from the WISHA Method A.C.R.O. for acrolein and formaldehyde is presented below for informational purposes.

(e) Inclusion of WISHA's method in this appendix in no way implies that it is the only acceptable way to measure employee exposure to formaldehyde. Other methods that are free from significant interferences and that can determine formaldehyde at the permissible exposure limits within  $\pm 25$  percent of the "true" value at the ninety-five percent confidence level are also acceptable. Where applicable, the method should also be capable of measuring formaldehyde at the action level to  $\pm 35$  percent of the "true" value with a ninety-five percent confidence level. WISHA encourages employers to choose methods that will be best for their individual needs. The employer must exercise caution, however, in choosing an appropriate method since some techniques suffer from interferences that are likely to be present in workplaces of certain industry sectors where formaldehyde is used.

(12) WISHA's analytical laboratory method.

A.C.R.O. (also use methods F.O.R.M. and F.O.R.M. 2 when applicable).

(a) Matrix: Air.

(b) Target concentration: 1 ppm (1.2 mg/m<sup>3</sup>).

(c) Procedures: Air samples are collected by drawing known volumes of air through sampling tubes containing XAD-2 adsorbent which have been coated with 2-(hydroxymethyl) piperidine. The samples are desorbed with toluene and then analyzed by gas chromatography using a nitrogen selective detector.

(d) Recommended sampling rate and air volumes: 0.1 L/min and 24 L.

(e) Reliable quantitation limit: 16 ppb (20 ug/m<sup>3</sup>).

(f) Standard error of estimate at the target concentration: 7.3%.

(g) Status of the method: A sampling and analytical method that has been subjected to the established evaluation procedures of the organic methods evaluation branch.

(h) Date: March, 1985.

(13) General discussion.

(a) Background: The current WISHA method for collecting acrolein vapor recommends the use of activated 13X molecular sieves. The samples must be stored in an ice bath during and after sampling and also they must be analyzed within forty-eight hours of collection. The current WISHA method for collecting formaldehyde vapor recommends the use of bubblers containing ten percent methanol in water as the trapping solution.

(b) This work was undertaken to resolve the sample stability problems associated with acrolein and also to eliminate the need to use bubblers to sample formaldehyde. A goal of this work was to develop and/or to evaluate a common sampling and analytical procedure for acrolein and formaldehyde.

(c) NIOSH has developed independent methodologies for acrolein and formaldehyde which recommend the use of reagent-coated adsorbent tubes to collect the aldehydes as stable derivatives. The formaldehyde sampling tubes contain Chromosorb 102 adsorbent coated with N-benzylethanol-

amine (BEA) which reacts with formaldehyde vapor to form a stable oxazolidine compound. The acrolein sampling tubes contain XAD-2 adsorbent coated with 2-(hydroxymethyl) piperidine (2-HMP) which reacts with acrolein vapor to form a different, stable oxazolidine derivative. Acrolein does not appear to react with BEA to give a suitable reaction product. Therefore, the formaldehyde procedure cannot provide a common method for both aldehydes. However, formaldehyde does react with 2-HMP to form a very suitable reaction product. It is the quantitative reaction of acrolein and formaldehyde with 2-HMP that provides the basis for this evaluation.

(d) This sampling and analytical procedure is very similar to the method recommended by NIOSH for acrolein. Some changes in the NIOSH methodology were necessary to permit the simultaneous determination of both aldehydes and also to accommodate WISHA laboratory equipment and analytical techniques.

(14) Limit-defining parameters: The analyte air concentrations reported in this method are based on the recommended air volume for each analyte collected separately and a desorption volume of 1 mL. The amounts are presented as acrolein and/or formaldehyde, even though the derivatives are the actual species analyzed.

(15) Detection limits of the analytical procedure: The detection limit of the analytical procedure was 386 pg per injection for formaldehyde. This was the amount of analyte which gave a peak whose height was about five times the height of the peak given by the residual formaldehyde derivative in a typical blank front section of the recommended sampling tube.

(16) Detection limits of the overall procedure: The detection limits of the overall procedure were 482 ng per sample (16 ppb or 20 ug/m<sup>3</sup> for formaldehyde). This was the amount of analyte spiked on the sampling device which allowed recoveries approximately equal to the detection limit of the analytical procedure.

(17) Reliable quantitation limits:

(a) The reliable quantitation limit was 482 ng per sample (16 ppb or 20 ug/m<sup>3</sup>) for formaldehyde. These were the smallest amounts of analyte which could be quantitated within the limits of a recovery of at least seventy-five percent and a precision ( $\pm 1.96$  SD) of  $\pm 25\%$  or better.

(b) The reliable quantitation limit and detection limits reported in the method are based upon optimization of the instrument for the smallest possible amount of analyte. When the target concentration of an analyte is exceptionally higher than these limits, they may not be attainable at the routine operating parameters.

(18) Sensitivity: The sensitivity of the analytical procedure over concentration ranges representing 0.4 to 2 times the target concentration, based on the recommended air volumes, was seven thousand five hundred eighty-nine area units per ug/mL for formaldehyde. This value was determined from the slope of the calibration curve. The sensitivity may vary with the particular instrument used in the analysis.

(19) Recovery: The recovery of formaldehyde from samples used in an eighteen-day storage test remained above ninety-two percent when the samples were stored at ambient temperature. These values were determined from regression

lines which were calculated from the storage data. The recovery of the analyte from the collection device must be at least seventy-five percent following storage.

(20) Precision (analytical method only): The pooled coefficient of variation obtained from replicate determinations of analytical standards over the range of 0.4 to 2 times the target concentration was 0.0052 for formaldehyde ((d)(C)(iii) of this subsection).

(21) Precision (overall procedure): The precision at the ninety-five percent confidence level for the ambient temperature storage tests was  $\pm 14.3\%$  for formaldehyde. These values each include an additional  $\pm 5\%$  for sampling error. The overall procedure must provide results at the target concentrations that are  $\pm 25\%$  at the ninety-five percent confidence level.

(22) Reproducibility: Samples collected from controlled test atmospheres and a draft copy of this procedure were given to a chemist unassociated with this evaluation. The formaldehyde samples were analyzed following fifteen days storage. The average recovery was 96.3% and the standard deviation was 1.7%.

(23) Advantages:

(a) The sampling and analytical procedures permit the simultaneous determination of acrolein and formaldehyde.

(b) Samples are stable following storage at ambient temperature for at least eighteen days.

(24) Disadvantages: None.

(25) Sampling procedure:

(a) Apparatus:

(i) Samples are collected by use of a personal sampling pump that can be calibrated to within  $\pm 5\%$  of the recommended 0.1 L/min sampling rate with the sampling tube in line.

(ii) Samples are collected with laboratory prepared sampling tubes. The sampling tube is constructed of silane treated glass and is about 8-cm long. The ID is 4 mm and the OD is 6 mm. One end of the tube is tapered so that a glass wool end plug will hold the contents of the tube in place during sampling. The other end of the sampling tube is open to its full 4-mm ID to facilitate packing of the tube. Both ends of the tube are fire-polished for safety. The tube is packed with a 75-mg backup section, located nearest the tapered end and a 150-mg sampling section of pretreated XAD-2 adsorbent which has been coated with 2-HMP. The two sections of coated adsorbent are separated and retained with small plugs of silanized glass wool. Following packing, the sampling tubes are sealed with two 7/32 inch OD plastic end caps. Instructions for the pretreatment and the coating of XAD-2 adsorbent are presented in (d) of this subsection.

(b) Sampling tubes, similar to those recommended in this method, are marketed by Supelco, Inc. These tubes were not available when this work was initiated; therefore, they were not evaluated.

(26) Reagents: None required.

(27) Technique:

(a) Properly label the sampling tube before sampling and then remove the plastic end caps.

(b) Attach the sampling tube to the pump using a section of flexible plastic tubing such that the large, front section of the sampling tube is exposed directly to the atmosphere. Do

not place any tubing ahead of the sampling tube. The sampling tube should be attached in the worker's breathing zone in a vertical manner such that it does not impede work performance.

(c) After sampling for the appropriate time, remove the sampling tube from the pump and then seal the tube with plastic end caps.

(d) Include at least one blank for each sampling set. The blank should be handled in the same manner as the samples with the exception that air is not drawn through it.

(e) List any potential interferences on the sample data sheet.

(28) Breakthrough:

(a) Breakthrough was defined as the relative amount of analyte found on a backup sample in relation to the total amount of analyte collected on the sampling train.

(b) For formaldehyde collected from test atmospheres containing six times the PEL, the average five percent breakthrough air volume was 41 L. The sampling rate was 0.1 L/min and the average mass of formaldehyde collected was 250 ug.

(29) Desorption efficiency: No desorption efficiency corrections are necessary to compute air sample results because analytical standards are prepared using coated adsorbent. Desorption efficiencies were determined, however, to investigate the recoveries of the analytes from the sampling device. The average recovery over the range of 0.4 to 2 times the target concentration, based on the recommended air volumes, was 96.2% for formaldehyde. Desorption efficiencies were essentially constant over the ranges studied.

(30) Recommended air volume and sampling rate:

(a) The recommended air volume for formaldehyde is 24 L.

(b) The recommended sampling rate is 0.1 L/min.

(31) Interferences:

(a) Any collected substance that is capable of reacting with 2-HMP and thereby depleting the derivatizing agent is a potential interference. Chemicals which contain a carbonyl group, such as acetone, may be capable of reacting with 2-HMP.

(b) There are no other known interferences to the sampling method.

(32) Safety precautions:

(a) Attach the sampling equipment to the worker in such a manner that it will not interfere with work performance or safety.

(b) Follow all safety practices that apply to the work area being sampled.

(33) Analytical procedure.

(a) Apparatus:

(i) A gas chromatograph (GC), equipped with a nitrogen selective detector. A Hewlett-Packard model 5840A GC fitted with a nitrogen phosphorus flame ionization detector (NPD) was used for this evaluation. Injections were performed using a Hewlett-Packard model 7671A automatic sampler.

(ii) A GC column capable of resolving the analytes from any interference. A 6 ft x 1/4 in OD (2mm ID) glass GC column containing 10% UCON 50-HB-5100+ 2% KOH on

80/100 mesh Chromosorb W-AW was used for the evaluation. Injections were performed on-column.

(iii) Vials, glass 2-mL with Teflon-lined caps.

(iv) Volumetric flasks, pipets, and syringes for preparing standards, making dilutions, and performing injections.

(b) Reagents:

(i) Toluene and dimethylformamide. Burdick and Jackson solvents were used in this evaluation.

(ii) Helium, hydrogen, and air, GC grade.

(iii) Formaldehyde, thirty-seven percent by weight, in water. Aldrich Chemical, ACS Reagent Grade formaldehyde was used in this evaluation.

(iv) Amberlite XAD-2 adsorbent coated with 2-(hydroxymethyl) piperidine (2-HMP), 10% by weight ((d) of this subsection).

(v) Desorbing solution with internal standard. This solution was prepared by adding 20 uL of dimethylformamide to 100 mL of toluene.

(c) Standard preparation:

(i) Formaldehyde: Prepare stock standards by diluting known volumes of thirty-seven percent formaldehyde solution with methanol. A procedure to determine the formaldehyde content of these standards is presented in (d) of this subsection. A standard containing 7.7 mg/mL formaldehyde was prepared by diluting 1 mL of the thirty-seven percent reagent to 50 mL with methanol.

(ii) It is recommended that analytical standards be prepared about sixteen hours before the air samples are to be analyzed in order to ensure the complete reaction of the analytes with 2-HMP. However, rate studies have shown the reaction to be greater than ninety-five percent complete after four hours. Therefore, one or two standards can be analyzed after this reduced time if sample results are outside the concentration range of the prepared standards.

(iii) Place 150-mg portions of coated XAD-2 adsorbent, from the same lot number as used to collect the air samples, into each of several glass 2-mL vials. Seal each vial with a Teflon-lined cap.

(iv) Prepare fresh analytical standards each day by injecting appropriate amounts of the diluted analyte directly onto 150-mg portions of coated adsorbent. It is permissible to inject both acrolein and formaldehyde on the same adsorbent portion. Allow the standards to stand at room temperature. A standard, approximately the target levels, was prepared by injecting 11 uL of the acrolein and 12 uL of the formaldehyde stock standards onto a single coated XAD-2 adsorbent portion.

(v) Prepare a sufficient number of standards to generate the calibration curves. Analytical standard concentrations should bracket sample concentrations. Thus, if samples are not in the concentration range of the prepared standards, additional standards must be prepared to determine detector response.

(vi) Desorb the standards in the same manner as the samples following the sixteen-hour reaction time.

(d) Sample preparation:

(i) Transfer the 150-mg section of the sampling tube to a 2-mL vial. Place the 75-mg section in a separate vial. If the glass wool plugs contain a significant number of adsorbent beads, place them with the appropriate sampling tube section.

Discard the glass wool plugs if they do not contain a significant number of adsorbent beads.

- (ii) Add 1 mL of desorbing solution to each vial.
- (iii) Seal the vials with Teflon-lined caps and then allow them to desorb for one hour. Shake the vials by hand with vigorous force several times during the desorption time.
- (iv) Save the used sampling tubes to be cleaned and recycled.
- (e) Analysis:
- (f) GC conditions.
- (34) Column temperature:
- (a) Bi-level temperature program.
- (i) First level: 100°C to 140°C at 4°C/min following completion of the first level.
- (ii) Second level: 140°C to 180°C at 20°C/min following completion of the first level.
- (b) Isothermal period: Hold column at 180°C until the recorder pen returns to baseline (usually about twenty-five minutes after injection).
- (c) Injector temperature: 180°C.
- (d) Helium flow rate: 30 mL/min (detector response will be reduced if nitrogen is substituted for helium carrier gas).
- (e) Injection volume: 51 0.8 uL.
- (f) GC column: Six-ft x 1/4-in OD (2 mm ID) glass GC column containing 10% UCON 50-HB-5100NZG651+512% KOH on 80/100 Chromosorb W-AW.
- (g) NPD conditions:
- (i) Hydrogen flow rate: 3 mL/min.
- (ii) Air flow rate: 50 mL/min.
- (h) Detector temperature: 275 5151C.
- (i) Use a suitable method, such as electronic integration, to measure detector response.
- (ii) Use an internal standard method to prepare the calibration curve with several standard solutions of different concentrations. Prepare the calibration curve daily. Program the integrator to report results in ug/mL.
- (iii) Bracket sample concentrations with standards.
- (iv) Interferences (analytical).
- (A) Any compound with the same general retention time as the analytes and which also gives a detector response is a potential interference. Possible interferences should be reported to the laboratory with submitted samples by the industrial hygienist.
- (B) GC parameters (temperature, column, etc.), may be changed to circumvent interferences.
- (C) A useful means of structure designation is GC/MS. It is recommended this procedure be used to confirm samples whenever possible.
- (D) The coated adsorbent usually contains a very small amount of residual formaldehyde derivative.
- (i) Calculations:
- (i) Results are obtained by use of calibration curves. Calibration curves are prepared by plotting detector response against concentration for each standard. The best line through the data points is determined by curve fitting.
- (ii) The concentration, in ug/mL, for a particular sample is determined by comparing its detector response to the calibration curve. If either of the analytes is found on the backup section, it is added to the amount found on the front section.

Blank corrections should be performed before adding the results together.

- (iii) The acrolein and/or formaldehyde air concentration can be expressed using the following equation:

$$\text{Mg/m}^3 = (\text{A})(\text{B})/\text{C}$$

where A=ug/mL from 3.7.2, B=desorption volume, and C=L of air sampled.

No desorption efficiency corrections are required.

- (iv) The following equation can be used to convert results in mg/m<sup>3</sup> to ppm.

$$\text{ppm} = (\text{mg/m}^3)(24.45)/\text{MW}$$

where mg/m<sup>3</sup>=result from 3.7.3, 24.45=molar volume of an ideal gas at 760 mm Hg and 25 5151C, MW=molecular weight (Formaldehyde=30.0).

(j) Backup data. Backup data on detection limits, reliable quantitation limits, sensitivity and precision of the analytical method, breakthrough, desorption efficiency, storage, reproducibility, and generation of test atmospheres are available in OSHA Method 52, developed by the Organics Methods Evaluation Branch, OSHA Analytical Laboratory, Salt Lake City, Utah.

- (k) Procedure to coat XAD-2 adsorbent with 2-HMP:

(i) Apparatus: Soxhlet extraction apparatus, rotary evaporation apparatus, vacuum desiccator, 1-L vacuum flask, 1-L round-bottomed evaporative flask, 1-L Erlenmeyer flask, 250-mL Buchner funnel with a coarse fritted disc, etc.

- (ii) Reagents:

(A) Methanol, isooctane, and toluene.

(B) (Hydroxymethyl) piperidine.

(C) Amberlite XAD-2 nonionic polymeric adsorbent, twenty to sixty mesh, Aldrich Chemical XAD-2 was used in this evaluation.

(l) Procedure: Weigh 125 g of crude XAD-2 adsorbent into a 1-L Erlenmeyer flask. Add about 200 mL of water to the flask and then swirl the mixture to wash the adsorbent. Discard any adsorbent that floats to the top of the water and then filter the mixture using a fritted Buchner funnel. Air dry the adsorbent for two minutes. Transfer the adsorbent back to the Erlenmeyer flask and then add about 200 mL of methanol to the flask. Swirl and then filter the mixture as before. Transfer the washed adsorbent back to the Erlenmeyer flask and then add about 200 mL of methanol to the flask. Swirl and then filter the mixture as before. Transfer the washed adsorbent to a 1-L round-bottomed evaporative flask, add 13 g of 2-HMP and then 200 mL of methanol, swirl the mixture and then allow it to stand for one hour. Remove the methanol at about 40°C and reduced pressure using a rotary evaporation apparatus. Transfer the coated adsorbent to a suitable container and store it in a vacuum desiccator at room temperature overnight. Transfer the coated adsorbent to a Soxhlet extractor and then extract the material with toluene for about twenty-four hours. Discard the contaminated toluene, add methanol in its place and then continue the Soxhlet extraction for an additional four hours. Transfer the adsorbent to a weighted 1-L round-bottom evaporative flask and remove the methanol using the rotary evaporation apparatus. Determine the weight of the adsorbent and then add an amount of 2-HMP, which is ten percent by weight of the adsorbent. Add

200 mL of methanol and then swirl the mixture. Allow the mixture to stand for one hour. Remove the methanol by rotary evaporation. Transfer the coated adsorbent to a suitable container and store it in a vacuum desiccator until all traces of solvents are gone. Typically, this will take two to three days. The coated adsorbent should be protected from contamination. XAD-2 adsorbent treated in this manner will probably not contain residual acrolein derivative. However, this adsorbent will often contain residual formaldehyde derivative levels of about 0.1 ug per 150 mg of adsorbent. If the blank values for a batch of coated adsorbent are too high, then the batch should be returned to the Soxhlet extractor, extracted with toluene again and then recoated. This process can be repeated until the desired blank levels are attained.

The coated adsorbent is now ready to be packed into sampling tubes. The sampling tubes should be stored in a sealed container to prevent contamination. Sampling tubes should be stored in the dark at room temperature. The sampling tubes should be segregated by coated adsorbent lot number. A sufficient amount of each lot number of coated adsorbent should be retained to prepare analytical standards for use with air samples from that lot number.

(m) A procedure to determine formaldehyde by acid titration:

(i) Standardize the 0.1 N HCl solution using sodium carbonate and methyl orange indicator.

(ii) Place 50 mL of 0.1 M sodium sulfite and three drops of thymophthalein indicator into a 250-mL Erlenmeyer flask. Titrate the contents of the flask to a colorless endpoint with 0.1 N HCl (usually one or two drops is sufficient). Transfer 10 mL of the formaldehyde/methanol solution ((b)(iii)(A) of this subsection) into the same flask and titrate the mixture with 0.1 N HCl, again, to a colorless endpoint. The formaldehyde concentration of the standard may be calculated by the following equation:

$$\text{Formaldehyde, mg/mL} = \frac{\text{acid titer} \times \text{acid normality} \times 30.0}{\text{mL of Sample}}$$

(iii) This method is based on the quantitative liberation of sodium hydroxide when formaldehyde reacts with sodium sulfite to form the formaldehyde-bisulfite addition product. The volume of sample may be varied depending on the formaldehyde content but the solution to be titrated must contain excess sodium sulfite. Formaldehyde solutions containing substantial amounts of acid or base must be neutralized before analysis.

**AMENDATORY SECTION** (Amending WSR 88-21-002, filed 10/6/88, effective 11/7/88)

**WAC 296-62-07546 Appendix C medical surveillance—Formaldehyde.** (1) Health hazards. The occupational health hazards of formaldehyde are primarily due to its toxic effects after inhalation, after direct contact with the skin or eyes by formaldehyde in liquid or vapor form, and after ingestion.

(2) Toxicology.

(a) Acute effects of exposure.

(i) Inhalation (breathing): Formaldehyde is highly irritating to the upper airways. The concentration of formaldehyde

that is immediately dangerous to life and health is 100 ppm. Concentrations above 50 ppm can cause severe pulmonary reactions within minutes. These include pulmonary edema, pneumonia, and bronchial irritation which can result in death. Concentrations above 5 ppm readily cause lower airway irritation characterized by cough, chest tightness, and wheezing. There is some controversy regarding whether formaldehyde gas is a pulmonary sensitizer which can cause occupational asthma in a previously normal individual. Formaldehyde can produce symptoms of bronchial asthma in humans. The mechanism may be either sensitization of the individual by exposure to formaldehyde or direct irritation by formaldehyde in persons with preexisting asthma. Upper airway irritation is the most common respiratory effect reported by workers and can occur over a wide range of concentrations, most frequently above 1 ppm. However, airway irritation has occurred in some workers with exposures to formaldehyde as low as 0.1 ppm. Symptoms of upper airway irritation include dry or sore throat, itching and burning sensations of the nose, and nasal congestion. Tolerance to this level of exposure may develop within one to two hours. This tolerance can permit workers remaining in an environment of gradually increasing formaldehyde concentrations to be unaware of their increasingly hazardous exposure.

(ii) Eye contact: Concentrations of formaldehyde between 0.05 ppm and 0.5 ppm produce a sensation of irritation in the eyes with burning, itching, redness, and tearing. Increased rate of blinking and eye closure generally protects the eye from damage at these low levels, but these protective mechanisms may interfere with some workers' work abilities. Tolerance can occur in workers continuously exposed to concentrations of formaldehyde in this range. Accidental splash injuries of human eyes to aqueous solutions of formaldehyde (formalin) have resulted in a wide range of ocular injuries including corneal opacities and blindness. The severity of the reactions have been directly dependent on the concentration of formaldehyde in solution and the amount of time lapsed before emergency and medical intervention.

(iii) Skin contact: Exposure to formaldehyde solutions can cause irritation of the skin and allergic contact dermatitis. These skin diseases and disorders can occur at levels well below those encountered by many formaldehyde workers. Symptoms include erythema, edema, and vesiculation or hives. Exposure to liquid formalin or formaldehyde vapor can provoke skin reactions in sensitized individuals even when airborne concentrations of formaldehyde are well below 1 ppm.

(iv) Ingestion: Ingestion of as little as 30 ml of a thirty-seven percent solution of formaldehyde (formalin) can result in death. Gastrointestinal toxicity after ingestion is most severe in the stomach and results in symptoms which can include nausea, vomiting, and severe abdominal pain. Diverse damage to other organ systems including the liver, kidney, spleen, pancreas, brain, and central nervous systems can occur from the acute response to ingestion of formaldehyde.

(b) Chronic effects of exposure. Long-term exposure to formaldehyde has been shown to be associated with an increased risk of cancer of the nose and accessory sinuses, nasopharyngeal and oropharyngeal cancer, and lung cancer

in humans. Animal experiments provide conclusive evidence of a causal relationship between nasal cancer in rats and formaldehyde exposure. Concordant evidence of carcinogenicity includes DNA binding, genotoxicity in short-term tests, and cytotoxic changes in the cells of the target organ suggesting both preneoplastic changes and a dose-rate effect. Formaldehyde is a complete carcinogen and appears to exert an effect on at least two stages of the carcinogenic process.

(3) Surveillance considerations.

(a) History.

(i) Medical and occupational history: Along with its acute irritative effects, formaldehyde can cause allergic sensitization and cancer. One of the goals of the work history should be to elicit information on any prior or additional exposure to formaldehyde in either the occupational or the nonoccupational setting.

(ii) Respiratory history: As noted above, formaldehyde has recognized properties as an airway irritant and has been reported by some authors as a cause of occupational asthma. In addition, formaldehyde has been associated with cancer of the entire respiratory system of humans. For these reasons, it is appropriate to include a comprehensive review of the respiratory system in the medical history. Components of this history might include questions regarding dyspnea on exertion, shortness of breath, chronic airway complaints, hyperreactive airway disease, rhinitis, bronchitis, bronchiolitis, asthma, emphysema, respiratory allergic reaction, or other preexisting pulmonary disease.

In addition, generalized airway hypersensitivity can result from exposures to a single sensitizing agent. The examiner should, therefore, elicit any prior history of exposure to pulmonary irritants, and any short-term or long-term effects of that exposure.

Smoking is known to decrease mucociliary clearance of materials deposited during respiration in the nose and upper airways. This may increase a worker's exposure to inhaled materials such as formaldehyde vapor. In addition, smoking is a potential confounding factor in the investigation of any chronic respiratory disease, including cancer. For these reasons, a complete smoking history should be obtained.

(iii) Skin disorders: Because of the dermal irritant and sensitizing effects of formaldehyde, a history of skin disorders should be obtained. Such a history might include the existence of skin irritation, previously documented skin sensitivity, and other dermatologic disorders. Previous exposure to formaldehyde and other dermal sensitizers should be recorded.

(iv) History of atopic or allergic diseases: Since formaldehyde can cause allergic sensitization of the skin and airways, it might be useful to identify individuals with prior allergen sensitization. A history of atopic disease and allergies to formaldehyde or any other substances should also be obtained. It is not definitely known at this time whether atopic diseases and allergies to formaldehyde or any other substances should also be obtained. Also it is not definitely known at this time whether atopic individuals have a greater propensity to develop formaldehyde sensitivity than the general population, but identification of these individuals may be useful for ongoing surveillance.

(v) Use of disease questionnaires: Comparison of the results from previous years with present results provides the best method for detecting a general deterioration in health when toxic signs and symptoms are measured subjectively. In this way recall bias does not affect the results of the analysis. Consequently, WISHA has determined that the findings of the medical and work histories should be kept in a standardized form for comparison of the year-to-year results.

(b) Physical examination.

(i) Mucosa of eyes and airways: Because of the irritant effects of formaldehyde, the examining physician should be alert to evidence of this irritation. A speculum examination of the nasal mucosa may be helpful in assessing possible irritation and cytotoxic changes, as may be indirect inspection of the posterior pharynx by mirror.

(ii) Pulmonary system: A conventional respiratory examination, including inspection of the thorax and auscultation and percussion of the lung fields should be performed as part of the periodic medical examination. Although routine pulmonary function testing is only required by the standard once every year for persons who are exposed over the TWA concentration limit, these tests have an obvious value in investigating possible respiratory dysfunction and should be used wherever deemed appropriate by the physician. In cases of alleged formaldehyde-induced airway disease, other possible causes of pulmonary dysfunction (including exposures to other substances) should be ruled out. A chest radiograph may be useful in these circumstances. In cases of suspected airway hypersensitivity or allergy, it may be appropriate to use bronchial challenge testing with formaldehyde or methacholine to determine the nature of the disorder. Such testing should be performed by or under the supervision of a physician experienced in the procedures involved.

(iii) Skin: The physician should be alert to evidence of dermal irritation of sensitization, including reddening and inflammation, urticaria, blistering, scaling, formation of skin fissures, or other symptoms. Since the integrity of the skin barrier is compromised by other dermal diseases, the presence of such disease should be noted. Skin sensitivity testing carries with it some risk of inducing sensitivity, and therefore, skin testing for formaldehyde sensitivity should not be used as a routine screening test. Sensitivity testing may be indicated in the investigation of a suspected existing sensitivity. Guidelines for such testing have been prepared by the North American Contact Dermatitis Group.

(4) Additional examinations or tests. The physician may deem it necessary to perform other medical examinations or tests as indicated. The standard provides a mechanism whereby these additional investigations are covered under the standard for occupational exposure to formaldehyde.

(5) Emergencies. The examination of workers exposed in an emergency should be directed at the organ systems most likely to be affected. Much of the content of the examination will be similar to the periodic examination unless the patient has received a severe acute exposure requiring immediate attention to prevent serious consequences. If a severe overexposure requiring medical intervention or hospitalization has occurred, the physician must be alert to the possibility of delayed symptoms. Followup nonroutine examinations may be necessary to ~~((assure))~~ ensure the patient's well-being.

(6) Employer obligations. The employer is required to provide the physician with the following information: A copy of this standard and appendices A, C, D, and E; a description of the affected employee's duties as they relate to his or her exposure concentration; an estimate of the employee's exposure including duration (e.g., fifteen hr./wk., three eight-hour shifts, full-time); a description of any personal protective equipment, including respirators, used by the employee; and the results of any previous medical determinations for the affected employee related to formaldehyde exposure to the extent that this information is within the employer's control.

(7) Physician's obligations. The standard requires the employer to obtain a written statement from the physician. This statement must contain the physician's opinion as to whether the employee has any medical condition which would place ~~(him or her)~~ them at increased risk of impaired health from exposure to formaldehyde or use of respirators, as appropriate. The physician must also state his opinion regarding any restrictions that should be placed on the employee's exposure to formaldehyde or upon the use of protective clothing or equipment such as respirators. If the employee wears a respirator as a result of his or her exposure to formaldehyde, the physician's opinion must also contain a statement regarding the suitability of the employee to wear the type of respirator assigned. Finally, the physician must inform the employer that the employee has been told the results of the medical examination and of any medical conditions which require further explanation or treatment. This written opinion is not to contain any information on specific findings or diagnoses unrelated to occupational exposure to formaldehyde.

The purpose in requiring the examining physician to supply the employer with a written opinion is to provide the employer with a medical basis to assist the employer in placing employees initially, in ~~(assuring)~~ ensuring that their health is not being impaired by formaldehyde, and to assess the employee's ability to use any required protective equipment.

AMENDATORY SECTION (Amending WSR 14-07-086, filed 3/18/14, effective 5/1/14)

**WAC 296-62-07601 Scope and application.** (1) WAC 296-62-076 applies to all occupational exposures to MDA, Chemical Abstracts Service Registry No. 101-77-9, except as provided in subsections (2) through (7) of this section.

(2) Except as provided in subsection (8) of this section and WAC 296-62-07609(5), this section does not apply to the processing, use, and handling of products containing MDA where initial monitoring indicates that the product is not capable of releasing MDA in excess of the action level under the expected conditions of processing, use, and handling which will cause the greatest possible release; and where no "dermal exposure to MDA" can occur.

(3) Except as provided in subsection (8) of this section, WAC 296-62-076 does not apply to the processing, use, and handling of products containing MDA where objective data are reasonably relied upon which demonstrate the product is not capable of releasing MDA under the expected conditions of processing, use, and handling which will cause the greatest

possible release; and where no "dermal exposure to MDA" can occur.

(4) WAC 296-62-076 does not apply to the storage, transportation, distribution, or sale of MDA in intact containers sealed in such a manner as to contain the MDA dusts, vapors, or liquids, except for the provisions of WAC ~~((296-62-054,))~~ 296-62-07607 and 296-901-140.

(5) WAC 296-62-076 does not apply to the construction industry as defined in WAC 296-155-012~~((6))~~. (Exposure to MDA in the construction industry is covered by WAC 296-155-173.)

(6) Except as provided in subsection (8) of this section, WAC 296-62-076 does not apply to materials in any form which contain less than 0.1% MDA by weight or volume.

(7) Except as provided in subsection (8) of this section, WAC 296-62-076 does not apply to "finished articles containing MDA."

(8) Where products containing MDA are exempted under subsections (2) through (7) of this section, the employer ~~((shall))~~ must maintain records of the initial monitoring results or objective data supporting that exemption and the basis for the employer's reliance on the data, as provided in the recordkeeping provision of WAC 296-62-07631.

AMENDATORY SECTION (Amending WSR 93-04-111, filed 2/3/93, effective 3/15/93)

**WAC 296-62-07603 Definitions.** For the purpose of WAC 296-62-076, the following definitions shall apply:

~~((1))~~ "Action level" means) **Action level.** A concentration of airborne MDA of 5 ppb as an 8-hour time-weighted average.

~~((2))~~ "Authorized person" means) **Authorized person.** Any person specifically authorized by the employer whose duties require the person to enter a regulated area, or any person entering such an area as a designated representative of employees, for the purpose of exercising the right to observe monitoring and measuring procedures under WAC 296-62-07633 of WAC 296-62-076, or any other person authorized by WISHA or regulations issued by WISHA.

~~((3))~~ "Container" means) **Container.** Any barrel, bottle, can, cylinder, drum, reaction vessel, storage tank, commercial packaging, or the like, but does not include piping systems.

~~((4))~~ "Dermal exposure to MDA" means) **Dermal exposure to MDA.** Occurs where employees are engaged in the handling, application, or use of mixtures or materials containing MDA, with any of the following nonairborne forms of MDA:

(a) Liquid, powdered, granular, or flaked mixtures containing MDA in concentrations greater than 0.1% by weight or volume; and

(b) Materials other than "finished articles" containing MDA in concentrations greater than 0.1% by weight or volume.

~~((5))~~ "Director" means) **Director.** The director of the department of labor and industries, or ~~((his/her))~~ their designated representative.

~~((6))~~ "Emergency" means) **Emergency.** Any occurrence such as, but not limited to, equipment failure, rupture of

containers, or failure of control equipment which results in an unexpected and potentially hazardous release of MDA.

~~((7) "Employee exposure" means))~~ **Employee exposure.** Exposure to MDA which would occur if the employee were not using respirators or protective work clothing and equipment.

~~((8) "Finished article containing MDA" is defined as))~~ **Finished article containing MDA.** Is a manufactured item:

(a) Which is formed to a specific shape or design during manufacture;

(b) Which has end use function(s) dependent in whole or part upon its shape or design during end use; and

(c) Where applicable, is an item which is fully cured by virtue of having been subjected to the conditions (temperature, time) necessary to complete the desired chemical reaction.

~~((9) "4,4' methylenedianiline" or "MDA" means))~~ **4,4' methylenedianiline or MDA.** The chemical 4,4'-diaminodiphenylmethane, Chemical Abstract Service Registry number 101-77-9, in the form of a vapor, liquid, or solid. The definition also includes the salts of MDA.

~~((10) "Regulated areas" means))~~ **Regulated areas.** Areas where airborne concentrations of MDA exceed or can reasonably be expected to exceed, the permissible exposure limits, or where dermal exposure to MDA can occur.

~~((11) "STEL" means))~~ **STEL.** Short-term exposure limit as determined by any 15 minute sample period.

AMENDATORY SECTION (Amending WSR 93-04-111, filed 2/3/93, effective 3/15/93)

**WAC 296-62-07605 Permissible exposure limits (PEL).** The employer (~~((shall assure))~~) must ensure that no employee is exposed to an airborne concentration of MDA in excess of ten parts per billion (10 ppb) as an 8-hour time-weighted average or a STEL of 100 ppb.

AMENDATORY SECTION (Amending WSR 93-04-111, filed 2/3/93, effective 3/15/93)

**WAC 296-62-07607 Emergency situations.** (1) Written plan.

(a) A written plan for emergency situations (~~((shall))~~) must be developed for each workplace where there is a possibility of an emergency. Appropriate portions of the plan (~~((shall))~~) must be implemented in the event of an emergency.

(b) The plan (~~((shall))~~) must specifically provide that employees engaged in correcting emergency conditions (~~((shall))~~) must be equipped with the appropriate personal protective equipment and clothing as required in WAC 296-62-07615 and 296-62-07617 until the emergency is abated.

(c) The plan (~~((shall))~~) must specifically include provisions for alerting and evacuating affected employees as well as the elements prescribed in chapter 296-24 WAC, Part G-1, "Employee emergency plans and fire prevention plans."

(2) Alerting employees. Where there is the possibility of employee exposure to MDA due to an emergency, means (~~((shall))~~) must be developed to alert promptly those employees who have the potential to be directly exposed. Affected employees not engaged in correcting emergency conditions (~~((shall))~~) must be evacuated immediately in the event that an

emergency occurs. Means (~~((shall))~~) must also be developed and implemented for alerting other employees who may be exposed as a result of the emergency.

AMENDATORY SECTION (Amending WSR 93-04-111, filed 2/3/93, effective 3/15/93)

**WAC 296-62-07609 Exposure monitoring.** (1) General.

(a) Determinations of employee exposure (~~((shall))~~) must be made from breathing zone air samples that are representative of each employee's exposure to airborne MDA over an eight-hour period. Determination of employee exposure to the STEL (~~((shall))~~) must be made from breathing zone air samples collected over a fifteen minute sampling period.

(b) Representative employee exposure (~~((shall))~~) must be determined on the basis of one or more samples representing full shift exposure for each shift for each job classification in each work area where exposure to MDA may occur.

(c) Where the employer can document that exposure levels are equivalent for similar operations in different work shifts, the employer shall only be required to determine representative employee exposure for that operation during one shift.

(2) Initial monitoring. Each employer who has a workplace or work operation covered by this standard (~~((shall))~~) must perform initial monitoring to determine accurately the airborne concentrations of MDA to which employees may be exposed.

(3) Periodic monitoring and monitoring frequency.

(a) If the monitoring required by subsection (2) of this section reveals employee exposure at or above the action level, but at or below the PELs, the employer (~~((shall))~~) must repeat such representative monitoring for each such employee at least every six months.

(b) If the monitoring required by subsection (2) of this section reveals employee exposure above the PELs, the employer (~~((shall))~~) must repeat such monitoring for each such employee at least every three months.

(c) The employer may alter the monitoring schedule from every three months to every six months for any employee for whom two consecutive measurements taken at least seven days apart indicate that the employee exposure has decreased to below the TWA but above the action level.

(4) Termination of monitoring.

(a) If the initial monitoring required by subsection (2) of this section reveals employee exposure to be below the action level, the employer may discontinue the monitoring for that employee, except as otherwise required by subsection (5) of this section.

(b) If the periodic monitoring required by subsection (3) of this section reveals that employee exposures, as indicated by at least two consecutive measurements taken at least seven days apart, are below the action level the employer may discontinue the monitoring for that employee, except as otherwise required by subsection (5) of this section.

(5) Additional monitoring. The employer (~~((shall))~~) must institute the exposure monitoring required under subsections (2) and (3) of this section when there has been a change in production process, chemicals present, control equipment,

personnel, or work practices which may result in new or additional exposures to MDA, or when the employer has any reason to suspect a change which may result in new or additional exposures.

(6) Accuracy of monitoring. Monitoring ~~((shall))~~ must be accurate, to a confidence level of ninety-five percent, to within plus or minus twenty-five percent for airborne concentrations of MDA.

(7) Employee notification of monitoring results.

(a) The employer ~~((shall))~~ must, within fifteen working days after the receipt of the results of any monitoring performed under this standard, notify each employee of these results, in writing, either individually or by posting of results in an appropriate location that is accessible to affected employees.

(b) The written notification required by subdivision (a) of this subsection ~~((shall))~~ must contain the corrective action being taken by the employer to reduce the employee exposure to or below the PELs, wherever the PELs are exceeded.

(8) Visual monitoring. The employer ~~((shall))~~ must make routine inspections of employee hands, face, and forearms potentially exposed to MDA. Other potential dermal exposures reported by the employee must be referred to the appropriate medical personnel for observation. If the employer determines that the employee has been exposed to MDA the employer ~~((shall))~~ must:

(a) Determine the source of exposure;

(b) Implement protective measures to correct the hazard; and

(c) Maintain records of the corrective actions in accordance with WAC 296-62-07631.

AMENDATORY SECTION (Amending WSR 93-04-111, filed 2/3/93, effective 3/15/93)

**WAC 296-62-07611 Regulated areas.** (1) Establishment.

(a) Airborne exposures. The employer ~~((shall))~~ must establish regulated areas where airborne concentrations of MDA exceed or can reasonably be expected to exceed, the permissible exposure limits.

(b) Dermal exposures. Where employees are subject to dermal exposure to MDA the employer ~~((shall))~~ must establish those work areas as regulated areas.

(2) Demarcation. Regulated areas ~~((shall))~~ must be demarcated from the rest of the workplace in a manner that minimizes the number of persons potentially exposed.

(3) Access. Access to regulated areas ~~((shall))~~ must be limited to authorized persons.

(4) Personal protective equipment and clothing. Each person entering a regulated area ~~((shall))~~ must be supplied with, and required to use, the appropriate personal protective clothing and equipment in accordance with WAC 296-62-07615 and 296-62-07617.

(5) Prohibited activities. The employer ~~((shall))~~ must ensure that employees do not eat, drink, smoke, chew tobacco or gum, or apply cosmetics in regulated areas.

AMENDATORY SECTION (Amending WSR 93-04-111, filed 2/3/93, effective 3/15/93)

**WAC 296-62-07613 Methods of compliance.** (1) Engineering controls and work practices.

(a) The employer ~~((shall))~~ must institute engineering controls and work practices to reduce and maintain employee exposure to MDA at or below the PELs except to the extent that the employer can establish that these controls are not feasible or where the provisions of subdivision (b) of this subsection or WAC 296-62-07615(1) apply.

(b) Wherever the feasible engineering controls and work practices which can be instituted are not sufficient to reduce employee exposure to or below the PELs, the employer ~~((shall))~~ must use them to reduce employee exposure to the lowest levels achievable by these controls and ~~((shall))~~ must supplement them by the use of respiratory protective devices which comply with the requirements of WAC 296-62-07615.

(2) Compliance program.

(a) The employer ~~((shall))~~ must establish and implement a written program to reduce employee exposure to or below the PELs by means of engineering and work practice controls, as required by subsection (1) of this section, and by use of respiratory protection where permitted under WAC 296-62-076. The program ~~((shall))~~ must include a schedule for periodic maintenance (e.g., leak detection) and ~~((shall))~~ must include the written plan for emergency situations as specified in WAC 296-62-07607.

(b) Upon request this written program ~~((shall))~~ must be furnished for examination and copying to the director, affected employees, and designated employee representatives. The employer ~~((shall))~~ must review and, as necessary, update such plans at least once every twelve months to make certain they reflect the current status of the program.

(3) Employee rotation. Employee rotation ~~((shall))~~ must not be permitted as a means of reducing exposure.

AMENDATORY SECTION (Amending WSR 09-15-145, filed 7/21/09, effective 9/1/09)

**WAC 296-62-07615 Respiratory protection.** (1) General. For employees who use respirators required by this section, the employer must provide each employee an appropriate respirator that complies with the requirements of this subsection. Respirators must be used during:

(a) Periods necessary to install or implement feasible engineering and work-practice controls;

(b) Work operations for which the employer establishes that engineering and work-practice controls are not feasible;

(c) Work operations for which feasible engineering and work-practice controls are not yet sufficient to reduce exposure to or below the PEL;

(d) Emergencies.

(2) Respirator program. The employer must develop, implement and maintain a respiratory protection program as required by chapter 296-842 WAC, Respirators, which covers each employee required by this chapter to use a respirator.

(3) Respirator selection.

(a) The employer must select and provide to employees appropriate respirators as specified in this section and WAC 296-842-13005 in the respirator rule.

(b) Any employee who cannot use a negative-pressure respirator must be given the option of using a positive-pressure respirator, or a supplied-air respirator operated in the continuous-flow or pressure-demand mode.

(c) Provide HEPA filters or N-, R-, or P-100 filters for powered air-purifying respirators (PAPRs) and negative-pressure air-purifying respirators.

(d) Provide to employees, for escape, one of the following respirator options:

(i) Any self-contained breathing apparatus with a full-facepiece or hood, operated in the positive-pressure or continuous-flow mode; or

(ii) A full-facepiece air-purifying respirator.

(e) Provide a combination HEPA filter (or N-, R-, or P-100 filter) and organic vapor canister or cartridge with air-purifying respirators when MDA is in liquid form or used as part of a process requiring heat.

**AMENDATORY SECTION** (Amending WSR 01-11-038, filed 5/9/01, effective 9/1/01)

**WAC 296-62-07617 Protective work clothing and equipment.** (1) Provision and use. Where employees are subject to dermal exposure to MDA, where liquids containing MDA can be splashed into the eyes, or where airborne concentrations of MDA are in excess of the PEL, the employer ~~((shall))~~ **must** provide, at no cost to the employee, and ensure that the employee uses, appropriate protective work clothing and equipment which prevent contact with MDA such as, but not limited to:

(a) Aprons, coveralls, or other full-body work clothing;

(b) Gloves, head coverings, and foot coverings; and

(c) Face shields, chemical goggles; or

(d) Other appropriate protective equipment which comply with WAC 296-800-160.

(2) Removal and storage.

(a) The employer ~~((shall))~~ **must** ensure that, at the end of their work shift, employees remove MDA-contaminated protective work clothing and equipment that is not routinely removed throughout the day in change rooms provided in accordance with the provisions established for change rooms.

(b) The employer ~~((shall))~~ **must** ensure that, during their work shift, employees remove all other MDA-contaminated protective work clothing or equipment before leaving a regulated area.

(c) The employer ~~((shall))~~ **must** ensure that no employee takes MDA-contaminated work clothing or equipment out of the change room, except those employees authorized to do so for the purpose of laundering, maintenance, or disposal.

(d) MDA-contaminated work clothing or equipment ~~((shall))~~ **must** be placed and stored in closed containers which prevent dispersion of the MDA outside the container.

(e) Containers of MDA-contaminated protective work clothing or equipment which are to be taken out of change rooms or the workplace for cleaning, maintenance, or disposal ~~((shall))~~ **must** bear labels warning of the hazards of MDA.

(3) Cleaning and replacement.

(a) The employer ~~((shall))~~ **must** provide the employee with clean protective clothing and equipment. The employer

~~((shall))~~ **must** ensure that protective work clothing or equipment required by this paragraph is cleaned, laundered, repaired, or replaced at intervals appropriate to maintain its effectiveness.

(b) The employer ~~((shall))~~ **must** prohibit the removal of MDA from protective work clothing or equipment by blowing, shaking, or any methods which allow MDA to reenter the workplace.

(c) The employer ~~((shall))~~ **must** ensure that laundering of MDA-contaminated clothing shall be done so as to prevent the release of MDA in the workplace.

(d) Any employer who gives MDA-contaminated clothing to another person for laundering ~~((shall))~~ **must** inform such person of the requirement to prevent the release of MDA.

(e) The employer ~~((shall))~~ **must** inform any person who launders or cleans protective clothing or equipment contaminated with MDA of the potentially harmful effects of exposure.

(f) MDA-contaminated clothing ~~((shall))~~ **must** be transported in properly labeled, sealed, impermeable bags or containers.

**AMENDATORY SECTION** (Amending WSR 01-17-033, filed 8/8/01, effective 9/1/01)

**WAC 296-62-07619 Hygiene facilities and practices.**

(1) Change rooms.

(a) The employer ~~((shall))~~ **must** provide clean change rooms for employees, who must wear protective clothing, or who must use protective equipment because of their exposure to MDA.

(b) Change rooms must be equipped with separate storage for protective clothing and equipment and for street clothes which prevents MDA contamination of street clothes.

(2) Showers.

(a) The employer ~~((shall))~~ **must** ensure that employees, who work in areas where there is the potential for exposure resulting from airborne MDA (e.g., particulates or vapors) above the action level, shower at the end of the work shift.

(i) Shower facilities required by this section ~~((shall))~~ **must** comply with WAC ~~((296-24-12010))~~ **296-800-23065**.

(ii) The employer ~~((shall))~~ **must** ensure that employees who are required to shower pursuant to the provisions contained herein do not leave the workplace wearing any protective clothing or equipment worn during the work shift.

(b) Where dermal exposure to MDA occurs, the employer ~~((shall))~~ **must** ensure that materials spilled or deposited on the skin are removed as soon as possible by methods which do not facilitate the dermal absorption of MDA.

(3) Lunch facilities.

(a) Availability and construction.

(i) Whenever food or beverages are consumed at the worksite and employees are exposed to MDA at or above the PEL or are subject to dermal exposure to MDA the employer ~~((shall))~~ **must** provide readily accessible lunch areas.

(ii) Lunch areas located within the workplace and in areas where there is the potential for airborne exposure to

MDA at or above the PEL ((~~shall~~)) must have a positive pressure, temperature controlled, filtered air supply.

(iii) Lunch areas may not be located in areas within the workplace where the potential for dermal exposure to MDA exists.

(b) The employer ((~~shall~~)) must ensure that employees who have been subjected to dermal exposure to MDA or who have been exposed to MDA above the PEL wash their hands and faces with soap and water prior to eating, drinking, smoking, or applying cosmetics.

(c) The employer ((~~shall~~)) must ensure that employees exposed to MDA do not enter lunch facilities with MDA-contaminated protective work clothing or equipment.

AMENDATORY SECTION (Amending WSR 14-07-086, filed 3/18/14, effective 5/1/14)

**WAC 296-62-07621 Communication of hazards.** (1) Hazard communication - General.

(a) Chemical manufacturers, importers, distributors, and employers ((~~shall~~)) must comply with all requirements of the Hazard Communication Standard (HCS), WAC 296-901-140 for MDA.

(b) In classifying the hazards of MDA at least the following hazards are to be addressed: Cancer; liver effects; and skin sensitization.

(c) Employers ((~~shall~~)) must include MDA in the hazard communication program established to comply with the HCS, WAC 296-901-140. Employers shall ensure that each employee has access to labels on containers of MDA and to safety data sheets, and is trained in accordance with the requirements of HCS and subsection (4) of this section.

(2) Signs and labels.

~~((a)) Signs-~~

~~((i))~~ The employer ((~~shall~~)) must post and maintain legible signs demarcating regulated areas and entrances or accessways to regulated areas that bear the following legend:

DANGER MDA MAY CAUSE CANCER  
CAUSES DAMAGE TO THE LIVER

RESPIRATORY PROTECTION AND PROTECTIVE CLOTHING  
MAY BE REQUIRED TO BE WORN IN THIS AREA

~~((ii)) Prior to June 1, 2016, employers may use the following legend in lieu of that specified in (a)(i) of this subsection:~~

DANGER MDA MAY CAUSE CANCER LIVER TOXIN  
AUTHORIZED PERSONNEL ONLY  
RESPIRATORS AND PROTECTIVE CLOTHING  
MAY BE REQUIRED TO BE WORN IN THIS AREA

~~(b) Labels. Prior to June 1, 2015, employers may include the following information workplace labels in lieu of the labeling requirements in subsection (1) of this section:~~

~~(i) For pure MDA:~~

~~DANGER CONTAINS MDA MAY CAUSE CANCER LIVER TOXIN~~

~~(ii) For mixtures containing MDA:~~

~~DANGER CONTAINS MDA CONTAINS MATERIALS  
WHICH MAY CAUSE CANCER LIVER TOXIN))~~

(3) Safety data sheets (SDS). In meeting the obligation to provide safety data sheets, employers ((~~shall~~)) must make appropriate use of the information found in Appendices A and B to WAC 296-62-076.

(4) Information and training.

(a) The employer ((~~shall~~)) must provide employees with information and training on MDA, in accordance with WAC 296-901-14016, at the time of initial assignment and at least annually thereafter.

(b) In addition to the information required under WAC 296-901-140, the employer ((~~shall~~)) must:

(i) Provide an explanation of the contents of WAC 296-62-076, including Appendices A and B, and indicate to employees where a copy of the standard is available;

(ii) Describe the medical surveillance program required under WAC 296-62-07625, and explain the information contained in Appendix C; and

(iii) Describe the medical removal provision required under WAC ((~~296-62-07625~~)) 296-62-07627 and 296-62-07629.

(5) Access to training materials.

(a) The employer ((~~shall~~)) must make readily available to all affected employees, without cost, all written materials relating to the employee training program, including a copy of this regulation.

(b) The employer ((~~shall~~)) must provide to the director, upon request, all information and training materials relating to the employee information and training program.

AMENDATORY SECTION (Amending WSR 93-04-111, filed 2/3/93, effective 3/15/93)

**WAC 296-62-07623 Housekeeping.** (1) All surfaces ((~~shall~~)) must be maintained as free as practicable of visible accumulations of MDA.

(2) The employer ((~~shall~~)) must institute a program for detecting MDA leaks, spills, and discharges, including regular visual inspections of operations involving liquid or solid MDA.

(3) All leaks ((~~shall~~)) must be repaired and liquid or dust spills cleaned up promptly.

(4) Surfaces contaminated with MDA may not be cleaned by the use of compressed air.

(5) Shoveling, dry sweeping, and other methods of dry clean-up of MDA may be used where HEPA-filtered vacuuming and/or wet cleaning are not feasible or practical.

(6) Waste, scrap, debris, bags, containers, equipment, and clothing contaminated with MDA ((~~shall~~)) must be collected and disposed of in a manner to prevent the reentry of MDA into the workplace.

AMENDATORY SECTION (Amending WSR 93-04-111, filed 2/3/93, effective 3/15/93)

**WAC 296-62-07625 Medical surveillance.** (1) General.

(a) The employer ((~~shall~~)) must make available a medical surveillance program for employees exposed to MDA:

(i) Employees exposed at or above the action level for thirty or more days per year;

(ii) Employees who are subject to dermal exposure to MDA for fifteen or more days per year;

(iii) Employees who have been exposed in an emergency situation;

(iv) Employees whom the employer, based on results from compliance with WAC 296-62-07609(8), has reason to believe are being dermally exposed; and

(v) Employees who show signs or symptoms of MDA exposure.

(b) The employer ((~~shall~~)) must ensure that all medical examinations and procedures are performed by, or under the supervision of, a licensed physician, at a reasonable time and place, and provided without cost to the employee.

(2) Initial examinations.

(a) Within one hundred fifty days of the effective date of this standard, or before the time of initial assignment, the employer ((~~shall~~)) must provide each employee covered by subdivision (1)(a) of this section with a medical examination including the following elements:

(i) A detailed history which includes:

(A) Past work exposure to MDA or any other toxic substances;

(B) A history of drugs, alcohol, tobacco, and medication routinely taken (duration and quantity); and

(C) A history of dermatitis, chemical skin sensitization, or previous hepatic disease.

(ii) A physical examination which includes all routine physical examination parameters, skin examination, and signs of liver disease.

(iii) Laboratory tests including:

(A) Liver function tests; and

(B) Urinalysis.

(iv) Additional tests as necessary in the opinion of the physician.

(b) No initial medical examination is required if adequate records show that the employee has been examined in accordance with the requirements of WAC 296-62-076 within the previous six months prior to the effective date of this standard or prior to the date of initial assignment.

(3) Periodic examinations.

(a) The employer ((~~shall~~)) must provide each employee covered by WAC 296-62-076 with a medical examination at least annually following the initial examination. These periodic examinations ((~~shall~~)) must include at least the following elements:

(i) A brief history regarding any new exposure to potential liver toxins, changes in drug, tobacco, and alcohol intake, and the appearance of physical signs relating to the liver and the skin;

(ii) The appropriate tests and examinations including liver function tests and skin examinations; and

(iii) Appropriate additional tests or examinations as deemed necessary by the physician.

(b) If in the physicians' opinion the results of liver function tests indicate an abnormality, the employee ((~~shall~~)) must be removed from further MDA exposure in accordance with WAC 296-62-07627 and 296-62-07629. Repeat liver

function tests ((~~shall~~)) must be conducted on advice of the physician.

(4) Emergency examinations. If the employer determines that the employee has been exposed to a potentially hazardous amount of MDA in an emergency situation as addressed in WAC 296-62-07607, the employer ((~~shall~~)) must provide medical examinations in accordance with subsection (3) of this section. If the results of liver function testing indicate an abnormality, the employee ((~~shall~~)) must be removed in accordance with WAC 296-62-07627 and 296-62-07629. Repeat liver function tests ((~~shall~~)) must be conducted on the advice of the physician. If the results of the tests are normal, tests must be repeated two to three weeks from the initial testing. If the results of the second set of tests are normal and on the advice of the physician, no additional testing is required.

(5) Additional examinations. Where the employee develops signs and symptoms associated with exposure to MDA, the employer shall provide the employee with an additional medical examination including a liver function test. Repeat liver function tests ((~~shall~~)) must be conducted on the advice of the physician. If the results of the tests are normal, tests must be repeated two to three weeks from the initial testing. If the results of the second set of tests are normal and, on the advice of the physician, no additional testing is required.

(6) Multiple physician review mechanism.

(a) If the employer selects the initial physician who conducts any medical examination or consultation provided to an employee under WAC 296-62-076, and the employee has signs or symptoms of occupational exposure to MDA (which could include an abnormal liver function test), and the employee disagrees with the opinion of the examining physician, and this opinion could affect the employee's job status, the employee may designate an appropriate, mutually acceptable second physician:

(i) To review any findings, determinations, or recommendations of the initial physician; and

(ii) To conduct such examinations, consultations, and laboratory tests as the second physician deems necessary to facilitate this review.

(b) The employer ((~~shall~~)) must promptly notify an employee of the right to seek a second medical opinion after each occasion that an initial physician conducts a medical examination or consultation pursuant to WAC 296-62-076. The employer may condition its participation in, and payment for, the multiple physician review mechanism upon the employee doing the following within fifteen days after receipt of the foregoing notification, or receipt of the initial physician's written opinion, whichever is later:

(i) The employee informing the employer that he or she intends to seek a second medical opinion; and

(ii) The employee initiating steps to make an appointment with a second physician.

(c) If the findings, determinations, or recommendations of the second physician differ from those of the initial physician, then the employer and the employee ((~~shall assure~~)) must ensure that efforts are made for the two physicians to resolve any disagreement.

(d) If the two physicians have been unable to resolve quickly their disagreement, then the employer and the

employee through their respective physicians ((~~shall~~)) must designate a third physician:

(i) To review any findings, determinations, or recommendations of the prior physicians; and

(ii) To conduct such examinations, consultations, laboratory tests, and discussions with the prior physicians as the third physician deems necessary to resolve the disagreement of the prior physicians.

(e) The employer ((~~shall~~)) must act consistent with the findings, determinations, and recommendations of the third physician, unless the employer and the employee reach an agreement which is otherwise consistent with the recommendations of at least one of the three physicians.

(7) Information provided to the examining and consulting physicians.

(a) The employer ((~~shall~~)) must provide the following information to the examining physician:

(i) A copy of this regulation and its appendices;

(ii) A description of the affected employee's duties as they relate to the employee's potential exposure to MDA;

(iii) The employee's current actual or representative MDA exposure level;

(iv) A description of any personal protective equipment used or to be used; and

(v) Information from previous employment-related medical examinations of the affected employee.

(b) The employer ((~~shall~~)) must provide the foregoing information to a second physician under this section upon request either by the second physician or by the employee.

(8) Physician's written opinion.

(a) For each examination under WAC 296-62-076, the employer ((~~shall~~)) must obtain, and provide the employee with a copy of, the examining physician's written opinion within fifteen days of its receipt. The written opinion ((~~shall~~)) must include the following:

(i) The occupationally pertinent results of the medical examination and tests;

(ii) The physician's opinion concerning whether the employee has any detected medical conditions which would place the employee at increased risk of material impairment of health from exposure to MDA;

(iii) The physician's recommended limitations upon the employee's exposure to MDA or upon the employee's use of protective clothing or equipment and respirators; and

(iv) A statement that the employee has been informed by the physician of the results of the medical examination and any medical conditions resulting from MDA exposure which require further explanation or treatment.

(b) The written opinion obtained by the employer ((~~shall~~)) must not reveal specific findings or diagnoses unrelated to occupational exposures.

AMENDATORY SECTION (Amending WSR 93-04-111, filed 2/3/93, effective 3/15/93)

**WAC 296-62-07627 Medical removal—Temporary medical removal of an employee.** Temporary medical removal of an employee.

(1) Temporary removal resulting from occupational exposure. The employee ((~~shall~~)) must be removed from

work environments in which exposure to MDA is at or above the action level or where dermal exposure to MDA may occur, following an initial examination (WAC 296-62-07625(2)), periodic examinations (WAC 296-62-07625(3)), an emergency situation (WAC 296-62-07625(4)), or an additional examination (WAC 296-62-07625(5)) in the following circumstances:

(a) When the employee exhibits signs and/or symptoms indicative of acute exposure to MDA; or

(b) When the examining physician determines that an employee's abnormal liver function tests are not associated with MDA exposure but that the abnormalities may be exacerbated as a result of occupational exposure to MDA.

(c) Temporary removal due to a final medical determination.

(i) The employer ((~~shall~~)) must remove an employee from work environments in which exposure to MDA is at or above the action level or where dermal exposure to MDA may occur, on each occasion that there is a final medical determination or opinion that the employee has a detected medical condition which places the employee at increased risk of material impairment to health from exposure to MDA.

(ii) For the purposes of WAC 296-62-076, the phrase "final medical determination" shall mean the outcome of the physician review mechanism used pursuant to the medical surveillance provisions of this section.

(iii) Where a final medical determination results in any recommended special protective measures for an employee, or limitations on an employee's exposure to MDA, the employer ((~~shall~~)) must implement and act consistent with the recommendation.

(2) Return of the employee to former job status.

(a) The employer ((~~shall~~)) must return an employee to ((~~his or her~~)) their former job status:

(i) When the employee no longer shows signs or symptoms of exposure to MDA or upon the advice of the physician.

(ii) When a subsequent final medical determination results in a medical finding, determination, or opinion that the employee no longer has a detected medical condition which places the employee at increased risk of material impairment to health from exposure to MDA.

(b) For the purposes of this section, the requirement that an employer return an employee to ((~~his or her~~)) their former job status is not intended to expand upon or restrict any rights an employee has or would have had, absent temporary medical removal, to a specific job classification or position under the terms of a collective bargaining agreement.

(3) Removal of other employee special protective measure or limitations. The employer ((~~shall~~)) must remove any limitations placed on an employee, or end any special protective measures provided to an employee, pursuant to a final medical determination, when a subsequent final medical determination indicates that the limitations or special protective measures are no longer necessary.

(4) Employer options pending a final medical determination. Where the physician review mechanism used pursuant to the medical surveillance provisions of WAC 296-62-076, has not yet resulted in a final medical determination with

respect to an employee, the employer ~~((shall))~~ must act as follows:

(a) Removal. The employer may remove the employee from exposure to MDA, provide special protective measures to the employee, or place limitations upon the employee, consistent with the medical findings, determinations, or recommendations of any of the physicians who have reviewed the employee's health status.

(b) Return. The employer may return the employee to ~~((his or her))~~ their former job status, and end any special protective measures provided to the employee, consistent with the medical findings, determinations, or recommendations of any of the physicians who have reviewed the employee's health status, with two exceptions.

(i) If the initial removal, special protection, or limitation of the employee resulted from a final medical determination which differed from the findings, determinations, or recommendations of the initial physician; or

(ii) If the employee has been on removal status for the preceding six months as a result of exposure to MDA, then the employer ~~((shall))~~ must await a final medical determination.

AMENDATORY SECTION (Amending WSR 93-04-111, filed 2/3/93, effective 3/15/93)

**WAC 296-62-07629 Medical removal protection benefits.** (1) Provisions of medical removal protection benefits. The employer ~~((shall))~~ must provide to an employee up to six months of medical removal protection benefits on each occasion that an employee is removed from exposure to MDA or otherwise limited pursuant to this section.

(2) Definition of medical removal protection benefits. For the purposes of this section, the requirement that an employer provide medical removal protection benefits means that the employer ~~((shall))~~ must maintain the earnings, seniority, and other employment rights and benefits of an employee as though the employee had not been removed from normal exposure to MDA or otherwise limited.

(3) Follow-up medical surveillance during the period of employee removal or limitations. During the period of time that an employee is removed from normal exposure to MDA or otherwise limited, the employer may condition the provision of medical removal protection benefits upon the employee's participation in follow-up medical surveillance made available pursuant to WAC 296-62-076.

(4) Workers' compensation claims. If a removed employee files a claim for workers' compensation payments for an MDA-related disability, then the employer ~~((shall))~~ must continue to provide medical removal protection benefits pending disposition of the claim. To the extent that an award is made to the employee for earnings lost during the period of removal, the employer's medical removal protection obligation ~~((shall))~~ must be reduced by such amount. The employer ~~((shall))~~ must receive no credit for workers' compensation payments received by the employee for treatment-related expenses.

(5) Other credits. The employer's obligation to provide medical removal protection benefits to a removed employee ~~((shall))~~ must be reduced to the extent that the employee

receives compensation for earnings lost during the period of removal either from a publicly or employer-funded compensation program, or receives income from non-MDA-related employment with any employer made possible by virtue of the employee's removal.

(6) Employees who do not recover within the six months of removal. The employer ~~((shall))~~ must take the following measures with respect to any employee removed from exposure to MDA:

(a) The employer ~~((shall))~~ must make available to the employee a medical examination pursuant to this section to obtain a final medical determination with respect to the employee;

(b) The employer ~~((shall-assure))~~ must ensure that the final medical determination obtained indicates whether or not the employee may be returned to ~~((his or her))~~ their former job status, and, if not, what steps should be taken to protect the employee's health;

(c) Where the final medical determination has not yet been obtained, or, once obtained indicates that the employee may not yet be returned to ~~((his or her))~~ their former job status, the employer ~~((shall))~~ must continue to provide medical removal protection benefits to the employee until either the employee is returned to former job status, or a final medical determination is made that the employee is incapable of ever safely returning to ~~((his or her))~~ their former job status; and

(d) Where the employer acts pursuant to a final medical determination which permits the return of the employee to ~~((his or her))~~ their former job status, despite what would otherwise be an abnormal liver function test, later questions concerning removing the employee again ~~((shall))~~ must be decided by a final medical determination. The employer need not automatically remove such an employee pursuant to the MDA removal criteria provided by WAC 296-62-076.

(7) Voluntary removal or restriction of an employee. Where an employer, although not required by WAC 296-62-076 to do so, removes an employee from exposure to MDA or otherwise places limitations on an employee due to the effects of MDA exposure on the employee's medical condition, the employer ~~((shall))~~ must provide medical removal protection benefits to the employee equal to that required by this section.

AMENDATORY SECTION (Amending WSR 12-24-071, filed 12/4/12, effective 1/4/13)

**WAC 296-62-07631 Recordkeeping.** (1) Monitoring data for exempted employers.

(a) Where as a result of the initial monitoring the processing, use, or handling of products made from or containing MDA are exempted from other requirements of this section under WAC 296-62-07601(2), the employer ~~((shall))~~ must establish and maintain an accurate record of monitoring relied on in support of the exemption.

(b) This record shall include at least the following information:

(i) The product qualifying for exemption;

(ii) The source of the monitoring data (e.g., was monitoring performed by the employer or a private contractor);

(iii) The testing protocol, results of testing, and/or analysis of the material for the release of MDA;

(iv) A description of the operation exempted and how the data support the exemption (e.g., are the monitoring data representative of the conditions at the affected facility); and

(v) Other data relevant to the operations, materials, processing, or employee exposures covered by the exemption.

(c) The employer ~~((shall))~~ must maintain this record for the duration of the employer's reliance upon such objective data.

(2) Objective data for exempted employers.

(a) Where the processing, use, or handling of products made from or containing MDA are exempted from other requirements of WAC 296-62-076 under WAC 296-62-07601, the employer ~~((shall))~~ must establish and maintain an accurate record of objective data relied upon in support of the exemption.

(b) This record ~~((shall))~~ must include at least the following information:

(i) The product qualifying for exemption;

(ii) The source of the objective data;

(iii) The testing protocol, results of testing, and/or analysis of the material for the release of MDA;

(iv) A description of the operation exempted and how the data support the exemption; and

(v) Other data relevant to the operations, materials, processing, or employee exposures covered by the exemption.

(c) The employer ~~((shall))~~ must maintain this record for the duration of the employer's reliance upon such objective data.

(3) Exposure measurements.

(a) The employer ~~((shall))~~ must establish and maintain an accurate record of all measurements required by WAC 296-62-07609, in accordance with ~~((Part B of this))~~ chapter 296-802 WAC.

(b) This record shall include:

(i) The dates, number, duration, and results of each of the samples taken, including a description of the procedure used to determine representative employee exposures;

(ii) Identification of the sampling and analytical methods used;

(iii) A description of the type of respiratory protective devices worn, if any; and

(iv) The name, Social Security number, job classification, and exposure levels of the employee monitored and all other employees whose exposure the measurement is intended to represent.

(c) The employer ~~((shall))~~ must maintain this record for at least 30 years, in accordance with ~~((Part B of this chapter))~~ WAC 296-802-20010.

(4) Medical surveillance.

(a) The employer shall establish and maintain an accurate record for each employee subject to medical surveillance required by WAC 296-62-07625, 296-62-07627, and 296-62-07629, in accordance with ~~((Part B of this))~~ chapter 296-802 WAC.

(b) This record ~~((shall))~~ must include:

(i) The name, Social Security number, and description of the duties of the employee;

(ii) The employer's copy of the physician's written opinion on the initial, periodic, and any special examinations, including results of medical examination and all tests, opinions, and recommendations;

(iii) Results of any airborne exposure monitoring done for that employee and the representative exposure levels supplied to the physician; and

(iv) Any employee medical complaints related to exposure to MDA.

(c) The employer ~~((shall))~~ must keep, or assure that the examining physician keeps, the following medical records:

(i) A copy of this standard and its appendices, except that the employer may keep one copy of the standard and its appendices for all employees provided the employer references the standard and its appendices in the medical surveillance record of each employee;

(ii) A copy of the information provided to the physician as required by any sections in the regulatory text;

(iii) A description of the laboratory procedures and a copy of any standards or guidelines used to interpret the test results or references to the information;

(iv) A copy of the employee's medical and work history related to exposure to MDA.

(d) The employer ~~((shall))~~ must maintain this record for at least the duration of employment plus thirty years, in accordance with ~~((Part B of this))~~ chapter 296-802 WAC.

(5) Medical removals.

(a) The employer ~~((shall))~~ must establish and maintain an accurate record for each employee removed from current exposure to MDA pursuant to WAC 296-62-07625, 296-62-07627, and 296-62-07629.

(b) Each record ~~((shall))~~ must include:

(i) The name and Social Security number of the employee;

(ii) The date of each occasion that the employee was removed from current exposure to MDA as well as the corresponding date on which the employee was returned to ~~((his or her))~~ their former job status;

(iii) A brief explanation of how each removal was or is being accomplished; and

(iv) A statement with respect to each removal indicating the reason for the removal.

(c) The employer ~~((shall))~~ must maintain each medical removal record for at least the duration of an employee's employment plus thirty years.

(6) Availability.

(a) The employer ~~((shall assure))~~ must ensure that records required to be maintained by ~~((WAC 296-62-076 shall))~~ chapter 296-802 WAC must be made available, upon request, to the director for examination and copying.

(b) Employee exposure monitoring records required by WAC 296-62-076 ~~((shall))~~ must be provided upon request for examination and copying to employees, employee representatives, and the director in accordance with the applicable sections of ~~((WAC 296-800-170))~~ chapter 296-800 WAC.

(c) Employee medical records required by this section ~~((shall))~~ must be provided upon request for examination and copying, to the subject employee, to anyone having the specific written consent of the subject employee, and to the

director in accordance with ~~((Part B of this))~~ chapter 296-802 WAC.

(7) Transfer of records. The employer ~~((shall))~~ must comply with the requirements involving transfer of records set forth in chapter 296-802 WAC.

AMENDATORY SECTION (Amending WSR 93-04-111, filed 2/3/93, effective 3/15/93)

**WAC 296-62-07633 Observation of monitoring.** (1) Employee observation. The employer ~~((shall))~~ must provide affected employees, or their designated representatives, an opportunity to observe the measuring or monitoring of employee exposure to MDA conducted pursuant to WAC 296-62-07609.

(2) Observation procedures. When observation of the measuring or monitoring of employee exposure to MDA requires entry into areas where the use of protective clothing and equipment or respirators is required, the employer ~~((shall))~~ must provide the observer with personal protective clothing and equipment or respirators required to be worn by employees working in the area, ~~((assure))~~ ensure the use of such clothing and equipment or respirators, and require the observer to comply with all other applicable safety and health procedures.

AMENDATORY SECTION (Amending WSR 93-04-111, filed 2/3/93, effective 3/15/93)

**WAC 296-62-07637 Appendices.** The information contained in Appendices A, B, C, and D of WAC 296-62-076 is not intended by itself, to create any additional obligations not otherwise imposed by this standard nor detract from any existing obligation. ~~((The protocols for respiratory fit testing in Appendix E of WAC 296-62-076 are mandatory.))~~

AMENDATORY SECTION (Amending WSR 99-17-026, filed 8/10/99, effective 11/10/99)

**WAC 296-62-07703 Definitions.** For the purpose of WAC 296-62-07701 through 296-62-07753:

**Accredited inspector** ~~((means))~~. Any person meeting the accreditation requirements of the Federal Toxic Substance Control Act, Section 206(a)(1) and (3). 15 U.S.C. 2646(a)(1) and (3).

**Aggressive method** ~~((means))~~. Removal or disturbance of building material by sanding, abrading, grinding or other method that breaks, crumbles, or disintegrates intact ACM.

**Amended water** ~~((means))~~. Water to which surfactant (wetting agent) has been added to increase the ability of the liquid to penetrate ACM.

**Asbestos**. Includes chrysotile, amosite, crocidolite, tremolite asbestos, anthophyllite asbestos, actinolite asbestos, and any of these minerals that have been chemically treated and/or altered.

For purposes of this standard, "asbestos" includes PACM, as defined below.

**Asbestos abatement project** ~~((means))~~. An asbestos project involving three square feet or three linear feet, or more, of asbestos-containing material.

**Asbestos-containing material (ACM)** ~~((means))~~. Any material containing more than 1% asbestos.

**Asbestos project**. Includes the construction, demolition, repair, remodeling, maintenance or renovation of any public or private building or structure, mechanical piping equipment or system involving the demolition, removal, encapsulation, salvage, or disposal of material or outdoor activity releasing or likely to release asbestos fibers into the air.

**Authorized person** ~~((means))~~. Any person authorized by the employer and required by work duties to be present in regulated areas.

**Building/facility/vessel owner** ~~((means))~~. Any legal entity or person who owns any public or private building, vessel, structure, facility, or mechanical system or the remnants thereof, including the agent of such person, but does not include individuals who work on asbestos projects in their own single-family residences, no part of which is used for commercial purposes. Also included is any lessee, who exercises control over management and record keeping functions relating to a building, vessel, and/or facility in which activities covered by this standard takes place.

**Certified asbestos supervisor** ~~((means))~~. An individual certified by the department under WAC 296-65-012.

**Certified asbestos worker** ~~((means))~~. An individual certified by the department under WAC 296-65-010.

**Certified industrial hygienist (CIH)** ~~((means))~~. One certified in the practice of industrial hygiene by the American Board of Industrial Hygiene.

**Class I asbestos work** ~~((means))~~. Activities involving the removal of thermal system insulation or surfacing ACM/PACM.

**Class II asbestos work** ~~((means))~~. Activities involving the removal of ACM which is not thermal system insulation or surfacing material. This includes, but is not limited to, the removal of asbestos-containing wallboard, floor tile and sheeting, roofing and siding shingles, and construction mastics.

**Class III asbestos work** ~~((means))~~. Repair and maintenance operations where "ACM," including TSI and surfacing ACM and PACM, may be disturbed.

**Class IV asbestos work** ~~((means))~~. Maintenance and custodial activities during which employees contact but do not disturb ACM or PACM and activities to clean up dust, waste and debris resulting from Class I, II, and III activities.

**Clean room** ~~((means))~~. An uncontaminated room having facilities for the storage of employees' street clothing and uncontaminated materials and equipment.

**Closely resemble** ~~((means that))~~. The major workplace conditions which have contributed to the levels of historic asbestos exposure, are no more protective than conditions of the current workplace.

**Competent person** ~~((means))~~. In addition to the definition in WAC 296-62-07728, one who is capable of identifying existing asbestos, hazards in the workplace and selecting the appropriate control strategy for asbestos exposure, who has the authority to take prompt corrective measures to eliminate them as specified in WAC 296-62-07728. The competent person shall be certified as an asbestos supervisor in compliance with WAC 296-65-030(3) and 296-65-012 for Class I and Class II work, and for Class III and Class IV work

involving 3 square feet or 3 linear feet or more of asbestos-containing material. For Class III and Class IV work, involving less than 3 square feet or 3 linear feet, the competent person shall be trained in an operations and maintenance (O&M) course which meets the criteria of EPA (40 C.F.R. 763.92 (a)(2)).

**Critical barrier ((means)).** One or more layers of plastic sealed over all openings into a work area or any other similarly placed physical barrier sufficient to prevent airborne asbestos in a work area from migrating to an adjacent area.

**Decontamination area ((means)).** An enclosed area adjacent and connected to the regulated area and consisting of an equipment room, shower area, and clean room, which is used for the decontamination of workers, materials, and equipment contaminated with asbestos.

**Demolition ((means)).** The wrecking or taking out of any load-supporting structural member and any related razing, removing, or stripping of asbestos products. Where feasible, asbestos-containing materials shall be removed from all structures prior to the commencement of any demolition activity as per WAC 296-155-775(9).

**Department ((means)).** The department of labor and industries.

**Director ((means)).** The director of the department of labor and industries or (his/her) their authorized representative.

**Director of NIOSH ((means)).** The Director, National Institute for Occupational Safety and Health, U.S. Department of Health and Human Services, or designee.

**Disturb or disturbance.** Refers to activities that disrupt the matrix of ACM or PACM, crumble or pulverize ACM or PACM, or generate visible debris from ACM or PACM. This term includes activities that disrupt the matrix of ACM or PACM, render ACM or PACM friable, or generate visible debris. Disturbance includes cutting away small amounts of ACM or PACM, no greater than the amount that can be contained in one standard size glove bag or waste bag in order to access a building or vessel component. In no event shall the amount of ACM or PACM so disturbed exceed that which can be contained in one glove bag or waste bag which shall not exceed 60 inches in length and width.

**Employee exposure ((means that)).** Exposure to airborne asbestos that would occur if the employee were not using respiratory protective equipment.

**Equipment room (change room) ((means)).** A contaminated room located within the decontamination area that is supplied with impermeable bags or containers for the disposal of contaminated protective clothing and equipment.

**Fiber ((means)).** A particulate form of asbestos, five micrometers or longer, with a length-to-diameter ratio of at least three to one.

**Glove bag ((means)).** Not more than a 60 x 60 inch impervious plastic bag-like enclosure affixed around an asbestos-containing material, with glove-like appendages through which material and tools may be handled.

**High-efficiency particulate air (HEPA) filter ((means)).** A filter capable of trapping and retaining at least 99.97 percent of all monodispersed particles of 0.3 micrometers mean aerodynamic diameter or larger.

**Homogeneous area ((means)).** An area of surfacing material or thermal system insulation that is uniform in color and texture.

**Industrial hygienist ((means)).** A professional qualified by education, training, and experience to anticipate, recognize, evaluate and develop controls for occupational health hazards.

**Intact ((means that)).** The ACM has not crumbled, been pulverized, or otherwise deteriorated so that the asbestos is no longer likely to be bound with its matrix. Friable ACM that is disturbed, as defined in this part, is presumed to be no longer intact.

**Modification.** For the purpose of WAC 296-62-07712, "modification" means a changed or altered procedure, material or component of a control system, which replaces a procedure, material or component of a required system. Omitting a procedure or component, or reducing or diminishing the stringency or strength of a material or component of the control system is not a "modification" for the purposes of WAC 296-62-07712.

**Negative initial exposure assessment ((means)).** A demonstration by the employer (which complies with the criteria in WAC 296-62-07709) that employee exposure during an operation is expected to be consistently below the PELs.

**PACM ((means—)).** Presumed asbestos-containing material. (U)

**Presumed asbestos-containing material ((means)).** Thermal system insulation and surfacing material found in buildings, vessels, and vessel sections constructed no later than 1980. The designation of a material as "PACM" may be rebutted pursuant to WAC 296-62-07721.

**Project designer ((means)).** A person who has successfully completed the training requirements for an abatement project designer established by 40 U.S.C. 763.90(g).

**Regulated area ((means)).** An area established by the employer to demarcate areas where Class I, II, and III asbestos work is conducted, and any adjoining area where debris and waste from such asbestos work accumulate; and a work area within which airborne concentrations of asbestos, exceed or can reasonably be expected to exceed the permissible exposure limit. Requirements for regulated areas are set out in WAC 296-62-07711.

**Removal ((means)).** All operations where ACM and/or PACM is taken out or stripped from structures or substrates, and includes demolition operations.

**Renovation ((means)).** The modifying of any existing vessel, vessel section, structure, or portion thereof.

**Repair ((means)).** Overhauling, rebuilding, reconstructing, or reconditioning of vessels, vessel sections, structures or substrates, including encapsulation or other repair of ACM or PACM attached to vessels, vessel sections, structures or substrates.

~~((Surfacing material means material that is sprayed, troweled on or otherwise applied to surfaces (such as acoustical plaster on ceilings and fireproofing materials on structural members, or other materials on surfaces for acoustical, fireproofing, and other purposes:-))~~

**Surfacing ACM ((means)).** Surfacing material which contains more than 1% asbestos.

**Surfacing material.** Material that is sprayed, troweled-on or otherwise applied to surfaces (such as acoustical plaster on ceilings and fireproofing materials on structural members, or other materials on surfaces for acoustical, fireproofing, and other purposes).

**Thermal system insulation (TSI)** ((means)), ACM applied to pipes, fittings, boilers, breaching, tanks, ducts, or other structural components to prevent heat loss or gain.

**Thermal system insulation ACM** ((is)), Thermal system insulation which contains more than 1% asbestos.

**AMENDATORY SECTION** (Amending WSR 97-01-079, filed 12/17/96, effective 3/1/97)

**WAC 296-62-07705 Permissible exposure limits (PEL).** (1) Time weighted average (TWA). The employer ((shall)) must ensure that no employee is exposed to an airborne concentration of asbestos in excess of 0.1 fiber per cubic centimeter (0.1 f/cc) of air as an eight-hour time-weighted average (TWA) as determined by the method prescribed in Appendix A of this part, or by an equivalent method recognized by the department.

(2) Excursion limit. The employer ((shall)) must ensure that no employee is exposed to an airborne concentration of asbestos in excess of 1.0 fiber per cubic centimeter of air (1 f/cc) as averaged over a sampling period of thirty minutes, as determined by the method prescribed in Appendix A of this part, or by an equivalent method recognized by the department.

**AMENDATORY SECTION** (Amending WSR 97-01-079, filed 12/17/96, effective 3/1/97)

**WAC 296-62-07706 Multiemployer worksites.** (1) On multiemployer worksites, an employer performing work requiring the establishment of a regulated area ((shall)) must inform other employers on the site of the nature of the employer's work with asbestos and/or PACM, of the existence of and requirements pertaining to regulated areas, and the measures taken to ensure that employees of such other employers are not exposed to asbestos.

(2) Asbestos hazards at a multiemployer worksite ((shall)) must be abated by the employer who created or controls the source of asbestos contamination. For example, if there is a significant breach of an enclosure containing Class I work, the employer responsible for erecting the enclosure ((shall)) must repair the breach immediately.

(3) In addition, all employers of employees exposed to asbestos hazards ((shall)) must comply with applicable protective provisions to protect their employees. For example, if employees working immediately adjacent to a Class I asbestos job are exposed to asbestos due to the inadequate containment of such jobs, their employer ((shall)) must either remove the employees from the area until the enclosure breach is repaired; or perform an initial exposure assessment pursuant to WAC 296-62-07709.

(4) All employers of employees working adjacent to regulated areas established by another employer on a multiemployer worksite, ((shall)) must take steps on a daily basis to ascertain the integrity of the enclosure and/or the effectiveness of the control method relied on by the primary asbestos

contractor to ((assure)) ensure that asbestos fibers do not migrate to such adjacent areas.

(5) All general contractors on a construction project which includes work covered by this standard ((shall)) must be deemed to exercise general supervisory authority over the work covered by this standard, even though the general contractor is not qualified to serve as the asbestos "competent person" as defined by WAC 296-62-07703. As supervisor of the entire project, the general contractor ((shall)) must ascertain whether the asbestos contractor is in compliance with this standard, and ((shall)) must require such contractor to come into compliance with this standard when necessary.

**AMENDATORY SECTION** (Amending WSR 06-05-027, filed 2/7/06, effective 4/1/06)

**WAC 296-62-07709 Exposure assessment and monitoring.** (1) General monitoring criteria.

(a) Each employer who has a workplace or work operation where exposure monitoring is required under this part must perform monitoring to determine accurately the airborne concentrations of asbestos to which employees may be exposed.

(b) Determinations of employee exposure must be made from breathing zone air samples that are representative of the eight-hour TWA and thirty minute short-term exposures of each employee.

(c) Representative eight-hour TWA employee exposures must be determined on the basis of one or more samples representing full-shift exposure for each shift for each employee in each job classification in each work area.

(d) Representative thirty minute short-term employee exposures must be determined on the basis of one or more samples representing thirty minute exposures associated with operations that are most likely to produce exposures above the excursion limit for each shift for each job classification in each work area.

(2) Exposure monitoring requirements for all occupational exposures to asbestos in all industries covered by the Washington Industrial Safety and Health Act except construction work, as defined in WAC 296-155-012, and except ship repairing, shipbuilding and shipbreaking employments and related employments as defined in WAC 296-304-01001.

(a) Initial monitoring.

(i) Each employer who has a workplace or work operation covered by this standard, except as provided for in (a)(ii) and (iii) of this subsection, must perform initial monitoring of employees who are, or may reasonably be expected to be exposed to airborne concentrations at or above the TWA permissible exposure limit and/or excursion limit. The initial monitoring must be at the initiation of each asbestos job to accurately determine the airborne concentration of asbestos to which employees may be exposed.

(ii) Where the employer or his/her representative has monitored after March 31, 1992, for the TWA permissible exposure limit and/or excursion limit, and the monitoring satisfies all other requirements of this section, and the monitoring data was obtained during work operations conducted under workplace conditions closely resembling the processes, type of material including percentage of asbestos,

control methods, work practices, and environmental conditions used and prevailing in the employer's current operations, the employer may rely on such earlier monitoring results to satisfy the requirements of (a)(i) of this subsection.

(iii) Where the employer has relied upon objective data that demonstrates that asbestos is not capable of being released in airborne concentrations at or above the TWA permissible exposure limit and/or excursion limit under those work conditions of processing, use, or handling expected to have the greatest potential for releasing asbestos, then no initial monitoring is required.

(b) Monitoring frequency (periodic monitoring) and patterns. After the initial determinations required by subsection (2)(a)(i) of this section, samples must be of such frequency and pattern as to represent with reasonable accuracy the levels of exposure of the employees. Sampling must not be at intervals greater than six months for employees whose exposures may reasonably be foreseen to exceed the TWA permissible exposure limit and/or excursion limit.

(c) Daily monitoring within regulated areas: The employer must conduct daily monitoring that is representative of the exposure of each employee who is assigned to work within a regulated area. Exception: When all employees within a regulated area are equipped with full facepiece supplied-air respirators operated in the pressure-demand mode equipped with either an auxiliary positive pressure self-contained breathing apparatus or a HEPA filter, the employer may dispense with the daily monitoring required by this subsection.

(d) Changes in monitoring frequency. If either the initial or the periodic monitoring required by subsection (2)(a) and (b) of this section statistically indicates that employee exposures are below the TWA permissible exposure limit and/or excursion limit, the employer may discontinue the monitoring for those employees whose exposures are represented by such monitoring.

(e) Additional monitoring. Notwithstanding the provisions of subsection (2)(a)(ii) and (c) of this section, the employer must institute the exposure monitoring required under subsection (2)(a)(i) and (ii) of this section whenever there has been a change in the production, process, control equipment, personnel, or work practices that may result in new or additional exposures above the TWA permissible exposure limit and/or excursion limit, or when the employer has any reason to suspect that a change may result in new or additional exposures above the TWA permissible exposure limit and/or excursion limit.

(3) Exposure assessment monitoring requirements for all construction work as defined in WAC 296-155-012 and for all ship repairing, shipbuilding and shipbreaking employments and related employments as defined in WAC 296-304-01001.

(a) Initial exposure assessment.

(i) Each employer who has a workplace or work operation covered by this standard must ensure that a "competent person" conducts an exposure assessment immediately before or at the initiation of the operation to ascertain expected exposures during that operation or workplace. The assessment must be completed in time to comply with the requirements which are triggered by exposure data or lack of

a "negative exposure assessment," and to provide information necessary to (~~assure~~) ensure that all control systems planned are appropriate for that operation and will work properly.

(ii) Basis of initial exposure assessment: Unless a negative exposure assessment has been made according to (b) of this subsection, the initial exposure assessment must, if feasible, be based on monitoring conducted according to (b) of this subsection. The assessment must take into consideration both the monitoring results and all observations, information or calculations which indicate employee exposure to asbestos, including any previous monitoring conducted in the workplace, or of the operations of the employer which indicate the levels of airborne asbestos likely to be encountered on the job. For Class I asbestos work, until the employer conducts exposure monitoring and documents that employees on that job will not be exposed in excess of the PELs, or otherwise makes a negative exposure assessment according to (b) of this subsection, the employer must presume that employees are exposed in excess of the TWA and excursion limit.

(b) Negative exposure assessment: For any one specific asbestos job which will be performed by employees who have been trained in compliance with the standard, the employer may demonstrate that employee exposures will be below the PELs by data which conform to the following criteria:

(i) Objective data demonstrating that the products or material containing asbestos minerals or the activity involving such product or material cannot release airborne fibers in concentrations exceeding the TWA and excursion limit under those work conditions having the greatest potential for releasing asbestos; or

(ii) Where the employer has monitored prior asbestos jobs for the PEL and the excursion limit within twelve months of the current or projected job, the monitoring and analysis were performed in compliance with the asbestos standard in effect; and the data was obtained during work operations conducted under workplace conditions "closely resembling" the processes, type of material including percentage of asbestos, control methods, work practices, and environmental conditions used and prevailing in the employer's current operations, the operations were conducted by employees whose training and experience are no more extensive than that of employees performing the current job, and these data show that under the conditions prevailing and which will prevail in the current workplace there is a high degree of certainty that employee exposures will not exceed the TWA or excursion limit; or

(iii) The results of initial exposure monitoring of the current job made from breathing zone samples that are representative of the 8-hour TWA and 30-minute short-term exposures of each employee covering operations which are most likely during the performance of the entire asbestos job to result in exposures over the PELs.

(c) Periodic monitoring.

(i) Class I and Class II operations. The employer must conduct daily monitoring that is representative of the exposure of each employee who is assigned to work within a regulated area who is performing Class I or II work, unless the

employer according to (b) of this subsection, has made a negative exposure assessment for the entire operation.

(ii) All operations under the standard other than Class I and II operations. The employer must conduct periodic monitoring of all work where exposures are expected to exceed a PEL, at intervals sufficient to document the validity of the exposure prediction.

(iii) Exception. When all employees required to be monitored daily are equipped with supplied-air respirators operated in the pressure demand mode, the employer may dispense with the daily monitoring required by subsection (2)(c) of this section. However, employees performing Class I work using a control method which is not listed in WAC 296-62-07712 or using a modification of a listed control method, must continue to be monitored daily even if they are equipped with supplied-air respirators.

(d) Termination of monitoring. If the periodic monitoring required by (c) of this subsection reveals that employee exposures, as indicated by statistically reliable measurements, are below the permissible exposure limit and excursion limit the employer may discontinue monitoring for those employees whose exposures are represented by such monitoring.

(e) Monitoring outside negative-pressure enclosures: The employer must conduct representative area monitoring of the airborne fiber levels at least every other day at the HEPA machine exhaust and entrance to the decontamination area.

(f) Additional monitoring. Notwithstanding the provisions of (b), (c), and (d) of this subsection, the employer must institute the exposure monitoring required under (c) of this subsection whenever there has been a change in process, control equipment, personnel or work practices that may result in new or additional exposures above the permissible exposure limit and/or excursion limit or when the employer has any reason to suspect that a change may result in new or additional exposures above the permissible exposure limit and/or excursion limit. Such additional monitoring is required regardless of whether a "negative exposure assessment" was previously produced for a specific job.

(g) Preabatement monitoring. Prior to the start of asbestos work, representative area air monitoring must be conducted for comparison to clearance monitoring as required by subsection (3)(h) of this section. Preabatement air monitoring is not required for outdoor work.

(h) Clearance monitoring. Representative area air monitoring must be taken at the completion of the asbestos work. Air sample results must be obtained before removal or reoccupancy of the regulated area. Clearance air monitoring is not required for outdoor asbestos work. The employer must demonstrate by monitoring that the airborne concentration is below:

(\*) (i) The permissible exposure limit; or

(\*) (ii) At or below the airborne fiber level existing prior to the start of the asbestos work, whichever level is lower.

(4) Method of monitoring.

(a) All samples taken to satisfy the employee exposure monitoring requirements of this section must be personal

samples collected following the procedures specified in WAC 296-62-07735, Appendix A.

(b) Monitoring must be performed by persons having a thorough understanding of monitoring principles and procedures and who can demonstrate proficiency in sampling techniques.

(c) All samples taken to satisfy the monitoring requirements of this section must be evaluated using the WISHA reference method specified in WAC 296-62-07735, Appendix A, or an equivalent counting method recognized by the department.

(d) If an equivalent method to the WISHA reference method is used, the employer must ensure that the method meets the following criteria:

(i) Replicate exposure data used to establish equivalency are collected in side-by-side field and laboratory comparisons; and

(ii) The comparison indicates that ninety percent of the samples collected in the range 0.5 to 2.0 times the permissible limit have an accuracy range of plus or minus twenty-five percent of the WISHA reference method results at a ninety-five percent confidence level as demonstrated by a statistically valid protocol; and

(iii) The equivalent method is documented and the results of the comparison testing are maintained.

(e) To satisfy the monitoring requirements of this section, employers must use the results of monitoring analysis performed by laboratories which have instituted quality assurance programs that include the elements as prescribed in WAC 296-62-07735, Appendix A.

(5) Employee notification of monitoring results.

(a) The employer must, as soon as possible but no later than within five days for construction and shipyard industries and fifteen working days for other industries, after the receipt of the results of any monitoring performed under the standard, notify the affected employees of these results in writing either individually or by posting of results in an appropriate location that is accessible to affected employees.

(b) The written notification required by (a) of this subsection must contain the corrective action being taken by the employer to reduce employee exposure to or below the TWA and/or excursion exposure limits, wherever monitoring results indicated that the TWA and/or excursion exposure limits had been exceeded.

(6) Observation of monitoring.

(a) The employer must provide affected employees or their designated representatives an opportunity to observe any monitoring of employee exposure to asbestos conducted in accordance with this section.

(b) When observation of the monitoring of employee exposure to asbestos requires entry into an area where the use of protective clothing or equipment is required, the observer must be provided with and be required to use such clothing and equipment and ~~(shall)~~ must comply with all other applicable safety and health procedures.

AMENDATORY SECTION (Amending WSR 97-19-014, filed 9/5/97, effective 11/5/97)

**WAC 296-62-07711 Regulated areas.** (1) General. The employer ((shall)) must establish a regulated area in work areas where airborne concentrations of asbestos exceed or can reasonably be expected to exceed the permissible exposure limits prescribed in WAC 296-62-07705. All Class I, II and III asbestos work ((shall)) must be conducted within regulated areas. All other operations covered by this standard ((shall)) must be conducted within the regulated area where airborne concentrations of asbestos exceed or can reasonably be expected to exceed permissible exposure limits. Regulated areas ((shall)) must comply with the requirements of subsections (2), (3), (4), (5), (6), (7), and (8) of this section.

(2) Demarcation. The regulated area ((shall)) must be demarcated in any manner that minimizes the number of persons within the area and protects persons outside the area from exposure to airborne asbestos. Where critical barriers or negative pressure enclosures are used, they may demarcate the regulated area. Signs ((shall)) must be provided and displayed pursuant to the requirements of WAC 296-62-07721.

(3) Access. Access to regulated areas ((shall)) must be limited to authorized persons or to persons authorized by the Washington Industrial Safety and Health Act or regulations issued pursuant thereto.

(4) Provision of respirators. Each person entering a regulated area where employees are required in WAC 296-62-07715(1) to wear respirators ((shall)) must be supplied with and required to use a respirator, selected in accordance with WAC 296-62-07715(2).

(5) Protective clothing. All persons entering a regulated area ((shall)) must be supplied with and required to wear protective clothing, selected in accordance with WAC 296-62-07717.

(6) Prohibited activities. The employer ((shall)) must ensure that employees do not eat, drink, smoke, chew tobacco or gum, or apply cosmetics in the regulated areas.

(7) Permit-required confined space. The employer ((shall)) must determine if a permit-required confined space hazard exists and ((shall)) must take any necessary precautions in accordance with chapter ((296-62-WAC Part M)) 296-809 WAC.

(8) Competent persons. For construction and shipyard work the employer ((shall)) must ensure that all asbestos work performed within regulated areas is supervised by a competent person, as defined in WAC 296-62-07703. The duties of the competent person are set out in WAC 296-62-07728.

AMENDATORY SECTION (Amending WSR 06-05-027, filed 2/7/06, effective 4/1/06)

**WAC 296-62-07712 Requirements for asbestos activities in construction and shipyard work.** (1) Methods of compliance, the following engineering controls and work practices of this section must be used for construction work defined in WAC 296-155-012 and for all ship repair defined in WAC 296-304-010.

(2) Engineering controls and work practices for all operations covered by this section. The employer must use the

following engineering controls and work practices in all operations covered by this section, regardless of the levels of exposure:

(a) Vacuum cleaners equipped with HEPA filters to collect all debris and dust containing ACM and PACM, except as provided in subsection (10)(b) of this section in the case of roofing material.

(b) Wet methods, or wetting agents, to control employee exposures during asbestos handling, mixing, removal, cutting, application, and cleanup, except where employers demonstrate that the use of wet methods is infeasible due to, for example, the creation of electrical hazards, equipment malfunction, and, in roofing, except as provided in subsection (10)(b) of this section.

(c) Asbestos must be handled, mixed, applied, removed, cut, scored, or otherwise worked in a wet saturated state to prevent the emission of airborne fibers unless the usefulness of the product would be diminished thereby.

(d) Prompt cleanup and disposal of wastes and debris contaminated with asbestos in leak-tight containers except in roofing operations, where the procedures specified in this section apply.

(3) In addition to the requirements of subsection (2) of this section, the employer must use the following control methods to achieve compliance with the TWA permissible exposure limit and excursion limit prescribed by WAC 296-62-07705:

(a) Local exhaust ventilation equipped with HEPA filter dust collection systems;

(b) Enclosure or isolation of processes producing asbestos dust;

(c) Ventilation of the regulated area to move contaminated air away from the breathing zone of employees and toward a filtration or collection device equipped with a HEPA filter;

(d) Use of other work practices and engineering controls that the department can show to be feasible;

(e) Wherever the feasible engineering and work practice controls described above are not sufficient to reduce employee exposure to or below the permissible exposure limit and/or excursion limit prescribed in WAC 296-62-07705, the employer must use them to reduce employee exposure to the lowest levels attainable by these controls and must supplement them by the use of respiratory protection that complies with the requirements of WAC 296-62-07715.

(4) Prohibitions. The following work practices and engineering controls must not be used for work related to asbestos or for work which disturbs ACM or PACM, regardless of measured levels of asbestos exposure or the results of initial exposure assessments:

(a) High-speed abrasive disc saws that are not equipped with point or cut ventilator or enclosures with HEPA filtered exhaust air;

(b) Compressed air used to remove asbestos, or materials containing asbestos, unless the compressed air is used in conjunction with an enclosed ventilation system designed to capture the dust cloud created by the compressed air;

(c) Dry sweeping, shoveling or other dry cleanup of dust and debris containing ACM and PACM;

(d) Employee rotation as a means of reducing employee exposure to asbestos.

(5) Cleanup.

(a) After completion of asbestos work (removal, demolition, and renovation operations), all surfaces in and around the work area must be cleared of any asbestos debris.

(b) Encapsulant must be applied to all areas where asbestos has been removed to ensure binding of any remaining fibers.

(6) Class I requirements. The following engineering controls and work practices and procedures must be used:

(a) All Class I work, including the installation and operation of the control system must be supervised by a competent person as defined in WAC 296-62-07703;

(b) For all Class I jobs involving the removal of more than twenty-five linear or ten square feet of thermal system insulation or surfacing material; for all other Class I jobs, where the employer cannot produce a negative exposure assessment according to WAC 296-62-07709(3), or where employees are working in areas adjacent to the regulated area, while the Class I work is being performed, the employer must use one of the following methods to ensure that airborne asbestos does not migrate from the regulated area:

(i) Critical barriers must be placed over all the openings to the regulated area, except where activities are performed outdoors; or

(ii) The employer must use another barrier or isolation method which prevents the migration of airborne asbestos from the regulated area, as verified by perimeter area surveillance during each work shift at each boundary of the regulated area, showing no visible asbestos dust; and perimeter area monitoring showing that clearance levels contained in 40 C.F.R. Part 763, Subpart E, of the EPA Asbestos in Schools Rule are met, or that perimeter area levels, measured by Phase Contrast Microscopy (PCM) are no more than background levels representing the same area before the asbestos work began. The results of such monitoring must be made known to the employer no later than twenty-four hours from the end of the work shift represented by such monitoring. Exception: For work completed outdoors where employees are not working in areas adjacent to the regulated areas, (a) of this subsection is satisfied when the specific control methods in subsection (7) of this section are used;

(c) For all Class I jobs, HVAC systems must be isolated in the regulated area by sealing with a double layer of 6 mil plastic or the equivalent;

(d) For all Class I jobs, impermeable dropcloths (~~shall~~) must be placed on surfaces beneath all removal activity;

(e) For all Class I jobs, all objects within the regulated area must be covered with impermeable dropcloths or plastic sheeting which is secured by duct tape or an equivalent;

(f) For all Class I jobs where the employer cannot produce a negative exposure assessment, or where exposure monitoring shows that a PEL is exceeded, the employer must ventilate the regulated area to move contaminated air away from the breathing zone of employees toward a HEPA filtration or collection device.

(7) Specific control methods for Class I work. In addition, Class I asbestos work must be performed using one or

more of the following control methods according to the limitations stated below:

(a) Negative pressure enclosure (NPE) systems: NPE systems may be used where the configuration of the work area does not make the erection of the enclosure infeasible, with the following specifications and work practices:

(i) Specifications:

(A) The negative pressure enclosure (NPE) may be of any configuration;

(B) At least 4 air changes per hour must be maintained in the NPE;

(C) A minimum of -0.02 column inches of water pressure differential, relative to outside pressure, must be maintained within the NPE as evidenced by manometric measurements;

(D) The NPE must be kept under negative pressure throughout the period of its use; and

(E) Air movement must be directed away from employees performing asbestos work within the enclosure, and toward a HEPA filtration or collection device.

(ii) Work practices:

(A) Before beginning work within the enclosure and at the beginning of each shift, the NPE must be inspected for breaches and smoke-tested for leaks, and any leaks sealed.

(B) Electrical circuits in the enclosure must be deactivated, unless equipped with ground-fault circuit interrupters.

(b) Glove bag systems may be used to remove PACM and/or ACM from straight runs of piping and elbows and other connections with the following specifications and work practices:

(i) Specifications:

(A) Glove bags must be made of 6 mil thick plastic and must be seamless at the bottom.

(B) Glove bags used on elbows and other connections must be designed for that purpose and used without modifications.

(ii) Work practices:

(A) Each glove bag must be installed so that it completely covers the circumference of pipe or other structure where the work is to be done.

(B) Glove bags must be smoke-tested for leaks and any leaks sealed prior to use.

(C) Glove bags may be used only once and may not be moved.

(D) Glove bags must not be used on surfaces whose temperature exceeds 150°F.

(E) Prior to disposal, glove bags must be collapsed by removing air within them using a HEPA vacuum.

(F) Before beginning the operation, loose and friable material adjacent to the glove bag/box operation must be wrapped and sealed in two layers of six mil plastic or otherwise rendered intact.

(G) Where system uses attached waste bag, such bag must be connected to collection bag using hose or other material which must withstand pressure of ACM waste and water without losing its integrity.

(H) Sliding valve or other device must separate waste bag from hose to ensure no exposure when waste bag is disconnected.

(I) At least two persons must perform Class I glove bag removal operations.

(c) Negative pressure glove bag systems. Negative pressure glove bag systems may be used to remove ACM or PACM from piping.

(i) Specifications: In addition to specifications for glove bag systems above, negative pressure glove bag systems must attach HEPA vacuum systems or other devices to bag during removal.

(ii) Work practices:

(A) The employer must comply with the work practices for glove bag systems in this section.

(B) The HEPA vacuum cleaner or other device used during removal must run continually during the operation until it is completed at which time the bag must be collapsed prior to removal of the bag from the pipe.

(C) Where a separate waste bag is used along with a collection bag and discarded after one use, the collection bag may be reused if rinsed clean with amended water before reuse.

(d) Negative pressure glove box systems: Negative pressure glove boxes may be used to remove ACM or PACM from pipe runs with the following specifications and work practices:

(i) Specifications:

(A) Glove boxes must be constructed with rigid sides and made from metal or other material which can withstand the weight of the ACM and PACM and water used during removal.

(B) A negative pressure generator must be used to create negative pressure in the system.

(C) An air filtration unit must be attached to the box.

(D) The box must be fitted with gloved apertures.

(E) An aperture at the base of the box must serve as a bagging outlet for waste ACM and water.

(F) A back-up generator must be present on site.

(G) Waste bags must consist of 6 mil thick plastic double-bagged before they are filled or plastic thicker than 6 mil.

(ii) Work practices:

(A) At least two persons must perform the removal.

(B) The box must be smoke-tested for leaks and any leaks sealed prior to each use.

(C) Loose or damaged ACM adjacent to the box must be wrapped and sealed in two layers of 6 mil plastic prior to the job, or otherwise made intact prior to the job.

(D) A HEPA filtration system must be used to maintain pressure barrier in box.

(e) Water spray process system. A water spray process system may be used for removal of ACM and PACM from cold line piping if, employees carrying out such process have completed a forty-hour separate training course in its use, in addition to training required for employees performing Class I work. The system must meet the following specifications and ~~((shall))~~ must be performed by employees using the following work practices:

(i) Specifications:

(A) Piping must be surrounded on three sides by rigid framing.

(B) A 360 degree water spray, delivered through nozzles supplied by a high pressure separate water line, must be formed around the piping.

(C) The spray must collide to form a fine aerosol which provides a liquid barrier between workers and the ACM and PACM.

(ii) Work practices:

(A) The system must be run for at least ten minutes before removal begins.

(B) All removal must take place within the water barrier.

(C) The system must be operated by at least three persons, one of whom must not perform removal, but must check equipment, and ensure proper operation of the system.

(D) After removal, the ACM and PACM must be bagged while still inside the water barrier.

(f) A small walk-in enclosure which accommodates no more than two persons (mini-enclosure) may be used if the disturbance or removal can be completely contained by the enclosure with the following specifications and work practices:

(i) Specifications:

(A) The fabricated or job-made enclosure must be constructed of 6 mil plastic or equivalent.

(B) The enclosure must be placed under negative pressure by means of a HEPA filtered vacuum or similar ventilation unit.

(C) Change room. A small change room made of 6-mil-thick polyethylene plastic should be contiguous to the mini-enclosure, and is necessary to allow the worker to vacuum off ~~((his/her))~~ their protective coveralls and remove them before leaving the work area. While inside the enclosure, the worker should wear Tyvek disposable coveralls or equivalent and must use the appropriate HEPA-filtered dual cartridge respiratory protection. The advantages of mini-enclosures are that they limit the spread of asbestos contamination, reduce the potential exposure of bystanders and other workers who may be working in adjacent areas, and are quick and easy to install. The disadvantage of mini-enclosures is that they may be too small to contain the equipment necessary to create a negative-pressure within the enclosure; however, the double layer of plastic sheeting will serve to restrict the release of asbestos fibers to the area outside the enclosure.

(ii) Work practices:

(A) Before use, the mini-enclosure must be inspected for leaks and smoke-tested to detect breaches, and any breaches sealed.

(B) Before reuse, the interior must be completely washed with amended water and HEPA-vacuumed.

(C) During use, air movement must be directed away from the employee's breathing zone within the mini-enclosure.

(8) Alternative control methods for Class I work. Class I work may be performed using a control method which is not referenced in subsections (2)(a) through (3)(e) of this section, or which modifies a control method referenced in subsections (2)(a) through (3)(e) of this section, if the following provisions are complied with:

(a) The control method ~~((shall))~~ must enclose, contain or isolate the processes or source of airborne asbestos dust, before it enters the breathing zone of employees.

(b) A certified industrial hygienist or licensed professional engineer who is also qualified as a project designer as defined in WAC 296-62-07703, ((~~shall~~)) must evaluate the work area, the projected work practices and the engineering controls and ((~~shall~~)) must certify in writing that the planned control method is adequate to reduce direct and indirect employee exposure to below the PELs under worst-case conditions of use, and that the planned control method will prevent asbestos contamination outside the regulated area, as measured by clearance sampling which meets the requirements of EPA's Asbestos in Schools rule issued under AHERA, or perimeter monitoring which meets the criteria in subsection (6)(b)(ii) of this section. Where the TSI or surfacing material to be removed is twenty-five linear or ten square feet or less, the evaluation required in subsection (8)(b) of this section may be performed by a competent person.

(c) Before work which involves the removal of more than twenty-five linear or ten square feet of thermal system insulation or surfacing material is begun using an alternative method which has been the subject of subsections (2)(a) through (3)(e) of this section required evaluation and certification, the employer ((~~shall~~)) must include a copy of such evaluation and certification with notifications required by WAC 296-65-020, Notification requirements. The submission shall not constitute approval by WISHA.

(d) The evaluation of employee exposure required in WAC 296-62-07712(8) must include and be based on sampling and analytical data representing employee exposure during the use of such method under the worst-case conditions and by employees whose training and experiences are equivalent to employees who are to perform the current job.

(9) Work practices and engineering controls for Class II work.

(a) All Class II work must be supervised by a competent person as defined in WAC 296-62-07703.

(b) For all indoor Class II jobs, where the employer has not produced a negative exposure assessment according to WAC 296-62-07709(3), or where during the job, changed conditions indicate there may be exposure above the PEL or where the employer does not remove the ACM in a substantially intact state, the employer must use one of the following methods to ensure that airborne asbestos does not migrate from the regulated area:

(i) Critical barriers must be placed over all openings to the regulated area; or

(ii) The employer must use another barrier or isolation method which prevents the migration of airborne asbestos from the regulated area, as verified by perimeter area monitoring or clearance monitoring which meets the criteria set out in subsection (6)(b)(ii) of this section.

(c) Impermeable dropcloths must be placed on surfaces beneath all removal activity.

(d) All Class II asbestos work must be performed using the work practices and requirements set out above in subsection (2) of this section.

(10) Additional controls for Class II work. Class II asbestos work must also be performed by complying with the work practices and controls designated for each type of asbestos work to be performed, set out in this paragraph. Where more than one control method may be used for a type

of asbestos work, the employer may choose one or a combination of designated control methods. Class II work also may be performed using a method allowed for Class I work, except that glove bags and glove boxes are allowed if they fully enclose the Class II material to be removed.

(a) For removing vinyl and asphalt flooring materials which contain ACM or for which in buildings constructed no later than 1980, the employer has not verified the absence of ACM according to WAC 296-62-07712 (10)(a)(ix). The employer must ensure that employees comply with the following work practices and that employees are trained in these practices according to WAC 296-62-07722.

(i) Flooring or its backing must not be sanded.

(ii) Vacuums equipped with HEPA filter, disposable dust bag, and metal floor tool (no brush) must be used to clean floors.

(iii) Resilient sheeting must be removed by cutting with wetting of the snip point and wetting during delamination. Rip-up of resilient sheet floor material is prohibited.

(iv) All scraping of residual adhesive and/or backing must be performed using wet methods.

(v) Dry sweeping is prohibited.

(vi) Mechanical chipping is prohibited unless performed in a negative pressure enclosure which meets the requirements of subsection (7)(a) of this section.

(vii) Tiles must be removed intact, unless the employer demonstrates that intact removal is not possible.

(viii) When tiles are heated and can be removed intact, wetting may be omitted.

(ix) Resilient flooring material including associated mastic and backing must be assumed to be asbestos-containing unless an industrial hygienist determines that it is asbestos-free using recognized analytical techniques.

(b) For removing roofing material which contains ACM the employer must ensure that the following work practices are followed:

(i) Roofing material must be removed in an intact state to the extent feasible.

(ii) Wet methods must be used to remove roofing materials that are not intact, or that will be rendered not intact during removal, unless such wet methods are not feasible or will create safety hazards.

(iii) Cutting machines must be continuously misted during use, unless a competent person determines that misting substantially decreases worker safety.

(iv) When removing built-up roofs with asbestos-containing roofing felts and an aggregate surface using a power roof cutter, all dust resulting from the cutting operation must be collected by a HEPA dust collector, or must be HEPA vacuumed by vacuuming along the cut line. When removing built-up roofs with asbestos-containing roofing felts and a smooth surface using a power roof cutter, the dust resulting from the cutting operation must be collected either by a HEPA dust collector or HEPA vacuuming along the cut line, or by gently sweeping and then carefully and completely wiping up the still wet dust and debris left along the cut line. The dust and debris must be immediately bagged or placed in covered containers.

(v) Asbestos-containing material that has been removed from a roof must not be dropped or thrown to the ground.

Unless the material is carried or passed to the ground by hand, it must be lowered to the ground via covered, dust-tight chute, crane or hoist:

(A) Any ACM that is not intact must be lowered to the ground as soon as is practicable, but in any event no later than the end of the work shift. While the material remains on the roof it must either be kept wet, placed in an impermeable waste bag, or wrapped in plastic sheeting.

(B) Intact ACM must be lowered to the ground as soon as is practicable, but in any event no later than the end of the work shift.

(vi) Upon being lowered, unwrapped material must be transferred to a closed receptacle in such manner so as to preclude the dispersion of dust.

(vii) Roof level heating and ventilation air intake sources must be isolated or the ventilation system must be shut down.

(viii) Notwithstanding any other provision of this section, removal or repair of sections of intact roofing less than twenty-five square feet in area does not require use of wet methods or HEPA vacuuming as long as manual methods which do not render the material nonintact are used to remove the material and no visible dust is created by the removal method used. In determining whether a job involves less than twenty-five square feet, the employer must include all removal and repair work performed on the same roof on the same day.

(c) When removing cementitious asbestos-containing siding and shingles or transite panels containing ACM on building exteriors (other than roofs, where subsection (10)(b) of this section applies) the employer must ensure that the following work practices are followed:

(i) Cutting, abrading or breaking siding, shingles, or transite panels, must be prohibited unless the employer can demonstrate that methods less likely to result in asbestos fiber release cannot be used.

(ii) Each panel or shingle must be sprayed with amended water prior to removal.

(iii) Unwrapped or unbagged panels or shingles must be immediately lowered to the ground via covered dust-tight chute, crane or hoist, or placed in an impervious waste bag or wrapped in plastic sheeting and lowered to the ground no later than the end of the work shift.

(iv) Nails must be cut with flat, sharp instruments.

(d) When removing gaskets containing ACM, the employer must ensure that the following work practices are followed:

(i) If a gasket is visibly deteriorated and unlikely to be removed intact, removal must be undertaken within a glove bag as described in subsection (7)(b) of this section.

(ii) (Reserved.)

(iii) The gasket must be immediately placed in a disposal container.

(iv) Any scraping to remove residue must be performed wet.

(e) When performing any other Class II removal of asbestos-containing material for which specific controls have not been listed in subsection (10) of this section, the employer must ensure that the following work practices are complied with.

(i) The material must be thoroughly wetted with amended water prior to and during its removal.

(ii) The material must be removed in an intact state unless the employer demonstrates that intact removal is not possible.

(iii) Cutting, abrading or breaking the material must be prohibited unless the employer can demonstrate that methods less likely to result in asbestos fiber release are not feasible.

(iv) Asbestos-containing material removed, must be immediately bagged or wrapped, or kept wet until transferred to a closed receptacle, no later than the end of the work shift.

(f) Alternative work practices and controls. Instead of the work practices and controls listed in subsection (10) of this section, the employer may use different or modified engineering and work practice controls if the following provisions are complied with.

(i) The employer must demonstrate by data representing employee exposure during the use of such method under conditions which closely resemble the conditions under which the method is to be used, that employee exposure will not exceed the PELs under any anticipated circumstances.

(ii) A competent person must evaluate the work area, the projected work practices and the engineering controls, and must certify in writing, that the different or modified controls are adequate to reduce direct and indirect employee exposure to below the PELs under all expected conditions of use and that the method meets the requirements of this standard. The evaluation must include and be based on data representing employee exposure during the use of such method under conditions which closely resemble the conditions under which the method is to be used for the current job, and by employees whose training and experience are equivalent to employees who are to perform the current job.

(11) Work practices and engineering controls for Class III asbestos work. Class III asbestos work must be conducted using engineering and work practice controls which minimize the exposure to employees performing the asbestos work and to bystander employees.

(a) The work must be performed using wet methods.

(b) To the extent feasible, the work must be performed using local exhaust ventilation.

(c) Where the disturbance involves drilling, cutting, abrading, sanding, chipping, braking, or sawing of thermal system insulation or surfacing material, the employer must use impermeable dropcloths, and must isolate the operation using mini-enclosures or glove bag systems according to subsection (7) of this section or another isolation method.

(d) Where the employer does not produce a "negative exposure assessment" for a job, or where monitoring results show the PEL has been exceeded, the employer must contain the area using impermeable dropcloths and plastic barriers or their equivalent, or must isolate the operation using a control system listed in and in compliance with subsection (7) of this section.

(e) Employees performing Class III jobs, which involve the disturbance of thermal system insulation or surfacing material, or where the employer does not produce a "negative exposure assessment" or where monitoring results show a PEL has been exceeded, must wear respirators which are

selected, used and fitted according to provisions of WAC 296-62-07715.

(12) Class IV asbestos work. Class IV asbestos jobs must be conducted by employees trained according to the asbestos awareness training program set out in WAC 296-62-07722. In addition, all Class IV jobs must be conducted in conformity with the requirements set out in this section, mandating wet methods, HEPA vacuums, and prompt clean up of debris containing ACM and PACM.

(a) Employees cleaning up debris and waste in a regulated area where respirators are required must wear respirators which are selected, used and fitted according to provisions of WAC 296-62-07715.

(b) Employers of employees who clean up waste and debris in, and employers in control of, areas where friable thermal system insulation or surfacing material is accessible, must assume that such waste and debris contain asbestos.

(13) Alternative methods of compliance for installation, removal, repair, and maintenance of certain roofing and pipeline coating materials. Notwithstanding any other provision of this section, an employer who complies with all provisions of subsection (10)(a) and (b) of this section when installing, removing, repairing, or maintaining intact pipeline asphaltic wrap, or roof flashings which contain asbestos fibers encapsulated or coated by bituminous or resinous compounds will be deemed to be in compliance with this section. If an employer does not comply with all provisions of this subsection (13), or if during the course of the job the material does not remain intact, the provisions of subsection (10) of this section apply instead of this subsection (13).

(a) Before work begins and as needed during the job, a competent person who is capable of identifying asbestos hazards in the workplace and selecting the appropriate control strategy for asbestos exposure, and who has the authority to take prompt corrective measures to eliminate such hazards, must conduct an inspection of the worksite and determine that the roofing material is intact and will likely remain intact.

(b) All employees performing work covered by this subsection (13) must be trained in a training program that meets the requirements of WAC 296-62-07722.

(c) The material must not be sanded, abraded, or ground. When manual methods are used, materials must stay intact.

(d) Material that has been removed from a roof must not be dropped or thrown to the ground. Unless the material is carried or passed to the ground by hand, it must be lowered to the ground via covered, dust-tight chute, crane or hoist. All such material must be removed from the roof as soon as is practicable, but in any event no later than the end of the work shift.

(e) Where roofing products which have been labeled as containing asbestos pursuant to WAC 296-62-07721, installed on nonresidential roofs during operations covered by this subsection (13), the employer must notify the building owner of the presence and location of such materials no later than the end of the job.

(f) All removal or disturbance of pipeline asphaltic wrap must be performed using wet methods.

AMENDATORY SECTION (Amending WSR 09-15-145, filed 7/21/09, effective 9/1/09)

**WAC 296-62-07715 Respiratory protection.** (1) General. For employees who use respirators required by WAC 296-62-077 through 296-62-07747, the employer must provide each employee an appropriate respirator that complies with the requirements of this section. Respirators must be used during:

(a) Periods necessary to install or implement feasible engineering and work-practice controls;

(b) Work operations, such as maintenance and repair activities, for which engineering and work-practice controls are not feasible;

(c) Work operations for which feasible engineering and work-practice controls are not yet sufficient to reduce employee exposure to or below the permissible exposure limits;

(d) Emergencies;

(e) Work operations in all regulated areas, except for construction activities which follow requirements set forth in WAC 296-62-07715 (1)(g);

(f) Work operations whenever employee exposure exceeds the permissible exposure limits;

(g) The following construction activities:

(i) Class I asbestos work;

(ii) Class II work where the ACM is not removed in a substantially intact state;

(iii) Class II and Class III work which is not performed using wet methods, except for removal of ACM from sloped roofs when a negative-exposure assessment has been made and the ACM is removed in an intact state;

(iv) Class II and Class III asbestos work for which a negative-exposure assessment has not been conducted;

(v) Class III work when TSI or surfacing ACM or PACM is being disturbed;

(vi) Class IV work performed within regulated areas where employees who are performing other work are required to wear respirators.

(2) Respirator program.

(a) The employer must develop, implement and maintain a respiratory protection program as required by chapter 296-842 WAC, Respirators, which covers each employee required by this chapter to use a respirator.

(b) Employers must provide an employee with a tight-fitting, powered, air-purifying respirator (PAPR) instead of a negative-pressure respirator selected when an employee chooses to use a PAPR and the respirator provides the required protection to the employee.

(c) The employer must inform any employee required to wear a respirator under this section that the employee may require the employer to provide a tight-fitting, powered, air-purifying respirator (PAPR) instead of a negative-pressure respirator.

(d) No employee must be assigned to tasks requiring the use of respirators if, based on their most recent medical examination, the examining physician determines that the employee will be unable to function normally using a respirator, or that the safety or health of the employee or other employees will be impaired by the use of a respirator. Such employees must be assigned to another job or given the

opportunity to transfer to a different position, the duties of which they can perform. If such a transfer position is available, the position must be with the same employer, in the same geographical area, and with the same seniority, status, and rate of pay the employee had just prior to such transfer.

(3) Respirator selection. The employer must:

(a) Select and provide to employees appropriate respirators as specified in this section, and in WAC 296-842-13005, in the respirator rule.

Make sure filtering facepiece respirators are not selected or used for protection against asbestos fibers.

(b) Provide employees with an air-purifying, half-facepiece respirator, other than a filtering-facepiece respirator, that is equipped with a HEPA filter or an N-, R-, or P-100 series filter whenever the employee performs:

(i) Class II and III asbestos work for which no negative-exposure assessment is available;

(ii) Class III asbestos work involving disturbances of TSI or surfacing ACM or PACM.

(c) Equip any powered air-purifying respirator (PAPR) or negative pressure air-purifying respirator with HEPA filters or N-, R-, or P-100 series filters.

(4) Special respiratory protection requirements.

(a) Unless specifically identified in this subsection, respirator selection for asbestos removal, demolition, and renovation operations ~~((shall))~~ **must** be in accordance with the selection specifications of this section and the general selection requirements in WAC 296-842-13005, found in the respirator rule. The employer must provide and require to be worn, at no cost to the employee, a full facepiece supplied-air respirator operated in the pressure demand mode equipped with either an auxiliary positive pressure self-contained breathing apparatus or a HEPA filter egress cartridge, to employees engaged in the following asbestos operations:

(i) Inside negative pressure enclosures used for removal, demolition, and renovation of friable asbestos from walls, ceilings, vessels, ventilation ducts, elevator shafts, and other structural members, but does not include pipes or piping systems; or

(ii) Any dry removal of asbestos.

(b) For all Class I work excluded or not specified in (a)(i) and (ii) of this subsection, when a negative-exposure assessment is not available, and the exposure assessment indicates the exposure level will be at or below 1 f/cc as an 8-hour time weighted average, employers must provide employees with one of the following respirators:

(i) A tight-fitting, powered, air-purifying respirator equipped with high-efficiency filters;

(ii) A full-facepiece supplied-air respirator operated in the pressure-demand mode equipped with either HEPA egress cartridges; or

(iii) An auxiliary positive-pressure, self-contained breathing apparatus.

(c) Whenever the employees are in a regulated area performing Class I asbestos work for which a negative exposure assessment is not available, and an exposure assessment indicates that the exposure level will be above 1 f/cc as an 8-hour TWA, employers must provide a full facepiece supplied-air respirator operated in the pressure-demand mode equipped

with an auxiliary positive-pressure self-contained breathing apparatus.

EXCEPTION: In lieu of the supplied-air respirator required by subsection (4) of this section, an employer may provide and require to be worn, at no cost to the employee, a full facepiece supplied-air respirator operated in the continuous flow mode equipped with either an auxiliary positive pressure self-contained breathing apparatus or a back-up HEPA filter egress cartridge where daily and historical personal monitoring data indicates the concentration of asbestos fibers is not reasonably expected to exceed 10 f/cc. The continuous flow respirator shall be operated at a minimum air flow rate of six cubic feet per minute at the facepiece using respirable air supplied as required by chapter 296-842 WAC, Respirators.

(5) Respirator fit testing.

(a) For each employee wearing negative pressure respirators, employers ~~((shall))~~ **must** perform either quantitative or qualitative face fit tests at the time of initial fitting and at least annually thereafter. The qualitative fit tests may be used only for testing the fit of half-mask respirators where they are permitted to be worn.

(b) Any supplied-air respirator facepiece equipped with a back-up HEPA filter egress cartridge ~~((shall))~~ **must** be quantitatively fit tested (see ~~((WAC 296-62-07160 through 296-62-07162 and 296-62-07201 through 296-62-07248))~~ chapter 296-842 WAC, Respirators).

**AMENDATORY SECTION** (Amending WSR 14-07-086, filed 3/18/14, effective 5/1/14)

**WAC 296-62-07717 Protective work clothing and equipment.** (1) Provision and use. If an employee is exposed to asbestos above the permissible exposure limits, or where the possibility of eye irritation exists, or for which a required negative exposure assessment is not produced and for any employee performing Class I operations, the employer ~~((shall))~~ **must** provide at no cost to the employee and require that the employee uses appropriate protective work clothing and equipment such as, but not limited to:

(a) Coveralls or similar full-body work clothing;

(b) Gloves, head coverings, and foot coverings; and

(c) Face shields, vented goggles, or other appropriate protective equipment which complies with WAC 296-800-160.

(2) Removal and storage.

(a) The employer ~~((shall))~~ **must** ensure that employees remove work clothing contaminated with asbestos only in change rooms provided in accordance with WAC 296-62-07719(1).

(b) The employer ~~((shall))~~ **must** ensure that no employee takes contaminated work clothing out of the change room, except those employees authorized to do so for the purpose of laundering, maintenance, or disposal.

(c) Contaminated clothing. Contaminated clothing ~~((shall))~~ **must** be transported in sealed impermeable bags, or other closed, impermeable containers, and be labeled in accordance with WAC 296-62-07721.

(d) The employer ~~((shall))~~ **must** ensure that containers of contaminated protective devices or work clothing which are to be taken out of change rooms or the workplace for clean-

ing, maintenance, or disposal, bear labels in accordance with WAC 296-62-07721(5).

(3) Cleaning and replacement.

(a) The employer ((~~shall~~)) must clean, launder, repair, or replace protective clothing and equipment required by this paragraph to maintain their effectiveness. The employer ((~~shall~~)) must provide clean protective clothing and equipment at least weekly to each affected employee.

(b) The employer ((~~shall~~)) must prohibit the removal of asbestos from protective clothing and equipment by blowing or shaking.

(c) Laundering of contaminated clothing ((~~shall~~)) must be done so as to prevent the release of airborne fibers of asbestos in excess of the permissible exposure limits prescribed in WAC 296-62-07705.

(d) Any employer who gives contaminated clothing to another person for laundering ((~~shall~~)) must inform such person of the requirement in (c) of this subsection to effectively prevent the release of airborne fibers of asbestos in excess of the permissible exposure limits.

(e) The employer ((~~shall~~)) must inform any person who launders or cleans protective clothing or equipment contaminated with asbestos of the potentially harmful effects of exposure to asbestos.

(f) The employer ((~~shall~~)) must ensure that contaminated clothing is transported in sealed impermeable bags, or other closed, impermeable containers, and labeled in accordance with WAC 296-62-07721.

(4) Inspection of protective clothing for construction and shipyard work.

(a) The competent person ((~~shall~~)) must examine worksuits worn by employees at least once per workshift for rips or tears that may occur during performance of work.

(b) When rips or tears are detected while an employee is working, rips and tears ((~~shall~~)) must be immediately mended, or the worksuit ((~~shall~~)) must be immediately replaced.

**AMENDATORY SECTION** (Amending WSR 03-18-090, filed 9/2/03, effective 11/1/03)

**WAC 296-62-07719 Hygiene facilities and practices.**

(1) Change rooms.

(a) The employer ((~~shall~~)) must provide clean change rooms for employees required to work in regulated areas or required by WAC 296-62-07717(1) to wear protective clothing.

Exception:

In lieu of the change area requirement specified in this subsection, the employer may permit employees in Class III and Class IV asbestos work, to clean their protective clothing with a portable HEPA-equipped vacuum before such employees leave the area where maintenance was performed.

(b) The employer ((~~shall~~)) must ensure that change rooms are in accordance with WAC 296-800-230, and are equipped with two separate lockers or storage facilities, so separated as to prevent contamination of the employee's street clothes from ((~~his/her~~)) their protective work clothing and equipment.

(2) Showers.

(a) The employer ((~~shall~~)) must ensure that employees who work in negative pressure enclosures required by WAC 296-62-07712, or who work in areas where their airborne exposure is above the permissible exposure limits prescribed in WAC 296-62-07705, shower at the end of the work shift.

(b) The employer ((~~shall~~)) must provide shower facilities which comply with WAC 296-800-230.

(c) The employer ((~~shall~~)) must ensure that employees who are required to shower pursuant to (a) of this subsection do not leave the workplace wearing any clothing or equipment worn during the work shift.

(3) Special requirements in addition to the other provisions of WAC 296-62-07719 for construction work defined in WAC 296-155-012 and for all shipyard work defined in WAC 296-304-010.

(a) Requirements for employees performing Class I asbestos jobs involving over twenty-five linear or ten square feet of TSI or surfacing ACM and PACM.

(i) Decontamination areas: The employer ((~~shall~~)) must establish a decontamination area that is adjacent and connected to the regulated area for the decontamination of such employees. The decontamination area ((~~shall~~)) must consist of an equipment room, shower area, and clean room in series. The employer ((~~shall~~)) must ensure that employees enter and exit the regulated area through the decontamination area.

(A) Equipment room. The equipment room ((~~shall~~)) must be supplied with impermeable, labeled bags and containers for the containment and disposal of contaminated protective equipment.

(B) Shower area. Shower facilities ((~~shall~~)) must be provided which comply with WAC 296-800-230, unless the employer can demonstrate that they are not feasible. The showers ((~~shall~~)) must be adjacent both to the equipment room and the clean room, unless the employer can demonstrate that this location is not feasible. Where the employer can demonstrate that it is not feasible to locate the shower between the equipment room and the clean room, or where the work is performed outdoors, the employers ((~~shall~~)) must ensure that employees:

(I) Remove asbestos contamination from their worksuits in the equipment room using a HEPA vacuum before proceeding to a shower that is not adjacent to the work area; or

(II) Remove their contaminated worksuits in the equipment room, then don clean worksuits, and proceed to a shower that is not adjacent to the work area.

(C) Clean change room. The clean room ((~~shall~~)) must be equipped with a locker or appropriate storage container for each employee's use.

(ii) Decontamination area entry procedures. The employer ((~~shall~~)) must ensure that employees:

(A) Enter the decontamination area through the clean room;

(B) Remove and deposit street clothing within a locker provided for their use; and

(C) Put on protective clothing and respiratory protection before leaving the clean room.

(D) Before entering the regulated area, the employer ((~~shall~~)) must ensure that employees pass through the equipment room.

(iii) Decontamination area exit procedures. The employer ~~((shall))~~ must ensure that:

(A) Before leaving the regulated area, employees ~~((shall))~~ must remove all gross contamination and debris from their protective clothing;

(B) Employees ~~((shall))~~ must remove their protective clothing in the equipment room and deposit the clothing in labeled impermeable bags or containers;

(C) Employees ~~((shall))~~ must not remove their respirators in the equipment room;

(D) Employees ~~((shall))~~ must shower prior to entering the clean room. When taking a shower, employees ~~((shall))~~ must be fully wetted, including the face and hair, prior to removing the respirators;

(E) After showering, employees ~~((shall))~~ must enter the clean room before changing into street clothes.

(b) Requirements for Class I work involving less than twenty-five linear or ten square feet of TSI or surfacing ACM and PACM, and for Class II and Class III asbestos work operations where exposures exceed a PEL or where there is no negative exposure assessment produced before the operation.

(i) The employer ~~((shall))~~ must establish an equipment room or area that is adjacent to the regulated area for the decontamination of employees and their equipment which is contaminated with asbestos which ~~((shall))~~ must consist of an area covered by a impermeable drop cloth on the floor or horizontal working surface.

(ii) The area must be of sufficient size as to accommodate cleaning of equipment and removing personal protective equipment without spreading contamination beyond the area (as determined by visible accumulations).

(iii) Work clothing must be cleaned with a HEPA vacuum before it is removed.

(iv) All equipment and surfaces of containers filled with ACM must be cleaned prior to removing them from the equipment room or area.

(v) The employer ~~((shall))~~ must ensure that employees enter and exit the regulated area through the equipment room or area.

(c) Requirements for Class IV work. Employers ~~((shall))~~ must ensure that employees performing Class IV work within a regulated area comply with hygiene practice required of employees performing work which has a higher classification within that regulated area. Otherwise employers of employees cleaning up debris and material which is TSI or surfacing ACM or identified as PACM ~~((shall))~~ must provide decontamination facilities for such employees which are required by WAC 296-62-07719 (3)(b).

(d) Decontamination area for personnel ~~((shall))~~ must not be used for the transportation of asbestos debris.

(e) Waste load-out procedure. The waste load-out area as required by WAC 296-62-07723 ~~((shall))~~ must be used as an area for final preparation and external decontamination of waste containers, as a short term storage area for bagged waste, and as a port for transporting waste. The employer ~~((shall))~~ must ensure waste containers be free of all gross contaminated material before removal from the negative-pressure enclosure. Gross contamination ~~((shall))~~ must be wiped, scraped off, or washed off containers before they are placed into a two chamber air lock which is adjacent to the

negative-pressure enclosure. In the first chamber, the exterior of the waste container ~~((shall))~~ must be decontaminated or placed within a second waste container, and then it ~~((shall))~~ must be moved into the second chamber of the air lock for temporary storage or transferred outside of the regulated area. The second waste container ~~((shall))~~ must not be reused unless thoroughly decontaminated.

(4) Lunchrooms.

(a) The employer ~~((shall))~~ must provide lunchroom facilities for employees who work in areas where their airborne exposure is above the time weighted average and/or excursion limit.

(b) The employer ~~((shall))~~ must ensure that lunchroom facilities have a positive pressure, filtered air supply, and are readily accessible to employees.

(c) The employer ~~((shall))~~ must ensure that employees who work in areas where their airborne exposure is above the time weighted average and/or excursion limit, wash their hands and faces prior to eating, drinking, or smoking.

(d) The employer ~~((shall))~~ must ensure that employees do not enter lunchroom facilities with protective work clothing or equipment unless surface asbestos fibers have been removed from the clothing or equipment by vacuuming or other method that removes dust without causing the asbestos to become airborne.

(5) Smoking in work areas. The employer ~~((shall))~~ must ensure that employees do not smoke in work areas where they are occupationally exposed to asbestos because of activities in that work area.

AMENDATORY SECTION (Amending WSR 14-07-086, filed 3/18/14, effective 5/1/14)

**WAC 296-62-07721 Communication of hazards.**

(1)(a) Communication of hazards to employees - Introduction. This section applies to the communication of information concerning asbestos hazards in general industry to facilitate compliance with this standard. Asbestos exposure in general industry occurs in a wide variety of industrial and commercial settings. Employees who manufacture asbestos-containing products may be exposed to asbestos fibers. Employees who repair and replace automotive brakes and clutches may be exposed to asbestos fibers. In addition, employees engaged in housekeeping activities in industrial facilities with asbestos product manufacturing operations, and in public and commercial buildings with installed asbestos-containing materials may be exposed to asbestos fibers. It should be noted that employees who perform housekeeping activities during and after construction activities are covered by asbestos construction work requirements in WAC 296-62-077. Housekeeping employees, regardless of industry designation, should know whether building components they maintain may expose them to asbestos. The same hazard communication provisions will protect employees who perform housekeeping operations in all three asbestos standards; general industry, construction, and shipyard employment. Building owners are often the only and/or best source of information concerning the presence of previously installed asbestos-containing building materials. Therefore they, along with employers of potentially exposed employees, are

assigned specific information conveying and retention duties under this section.

(i) Chemical manufacturers, importers, distributors and employers (~~shall~~) must comply with all requirements of the Hazard Communication Standard (HCS), WAC 296-901-140 for asbestos.

(ii) In classifying the hazards of asbestos at least the following hazards are to be addressed: Cancer and lung effects.

(iii) Employers (~~shall~~) must include asbestos in the hazard communication program established to comply with the HCS WAC 296-901-140. Employers (~~shall~~) must ensure that each employee has access to labels on containers of asbestos and to safety data sheets, and is trained in accordance with the requirements of HCS and WAC 296-62-07722.

(b) Installed asbestos-containing material. Employers and building owners are required to treat installed TSI and sprayed-on and troweled-on surfacing materials as ACM for the purposes of this standard. These materials are designated "presumed ACM or PACM," and are defined in WAC 296-62-07703. Asphalt and vinyl flooring installed no later than 1980 also must be treated as asbestos-containing. The employer or building owner may demonstrate that PACM and flooring materials do not contain asbestos by complying with WAC 296-62-07712 (10)(a)(ix).

(c) Duties of employers and building and facility owners.

(i) Building and facility owners must determine the presence, location, and quantity of ACM and/or PACM at the worksite. Employers and building and facility owners must exercise due diligence in complying with these requirements to inform employers and employees about the presence and location of ACM and PACM.

(ii) Before authorizing or allowing any construction, renovation, remodeling, maintenance, repair, or demolition project, an owner or owner's agent must perform, or cause to be performed, a good faith inspection to determine whether materials to be worked on or removed contain asbestos. The inspection must be documented by a written report maintained on file and made available upon request to the director.

(A) The good faith inspection must be conducted by an accredited inspector.

(B) Such good faith inspection is not required if the owner or owner's agent is reasonably certain that asbestos will not be disturbed by the project or the owner or owner's agent assumes that the suspect material contains asbestos and handles the material in accordance with WAC 296-62-07701 through 296-62-07753.

(iii) The owner or owner's agent must provide, to all contractors submitting a bid to undertake any construction, renovation, remodeling, maintenance, repair, or demolition project, the written statement either of the reasonable certainty of nondisturbance of asbestos or of assumption of the presence of asbestos. Contractors must be provided with the written report before they apply or bid to work.

(iv) Any owner or owner's agent who fails to comply with (c)(ii) and (iii) of this subsection must be subject to a mandatory fine of not less than two hundred fifty dollars for each violation. Each day the violation continues must be considered a separate violation. In addition, any construction, renovation, remodeling, maintenance, repair, or demolition

which was started without meeting the requirements of this section must be halted immediately and cannot be resumed before meeting such requirements.

(v) Building and facility owners must inform employers of employees, and employers must inform employees who will perform housekeeping activities in areas which contain ACM and/or PACM of the presence and location of ACM and/or PACM in such areas which may be contacted during such activities.

(vi) Upon written or oral request, building or facility owners must make a copy of the written report required in this section available to the department of labor and industries and the collective bargaining representatives or employee representatives of any employee who may be exposed to any asbestos or asbestos-containing materials. A copy of the written report must be posted conspicuously at the location where employees report to work.

(vii) Building and facility owners must maintain records of all information required to be provided according to this section and/or otherwise known to the building owner concerning the presence, location and quantity of ACM and PACM in the building/facility. Such records must be kept for the duration of ownership and must be transferred to successive owners.

(2) Communication of hazards to employees. Requirements for construction and shipyard employment activities.

(a) Introduction. This section applies to the communication of information concerning asbestos hazards in construction and shipyard employment activities. Most asbestos-related construction and shipyard activities involve previously installed building materials. Building/vessel owners often are the only and/or best sources of information concerning them. Therefore, they, along with employers of potentially exposed employees, are assigned specific information conveying and retention duties under this section. Installed Asbestos Containing Building/Vessel Material: Employers and building/vessel owners must identify TSI and sprayed or troweled on surfacing materials as asbestos-containing unless the employer, by complying with WAC 296-62-07721(3) determines it is not asbestos containing. Asphalt or vinyl flooring/decking material installed in buildings or vessels no later than 1980 must also be considered as asbestos containing unless the employer/owner, according to WAC 296-62-07712 (10)(a)(ix) determines it is not asbestos containing. If the employer or building/vessel owner has actual knowledge or should have known, through the exercise of due diligence, that materials other than TSI and sprayed-on or troweled-on surfacing materials are asbestos containing, they must be treated as such. When communicating information to employees according to this standard, owners and employers must identify "PACM" as ACM. Additional requirements relating to communication of asbestos work on multiemployer worksites are set out in WAC 296-62-07706.

(b) Duties of building/vessel and facility owners.

(i) Before work subject to this section is begun, building/vessel and facility owners must identify the presence, location and quantity of ACM, and/or PACM at the worksite. All thermal system insulation and sprayed on or troweled on surfacing materials in buildings/vessels or substrates constructed no later than 1980 must be identified as PACM. In

addition, resilient flooring/decking material installed no later than 1980 must also be identified as asbestos containing.

(ii) Before authorizing or allowing any construction, renovation, remodeling, maintenance, repair, or demolition project, a building/vessel and facility owner or owner's agent must perform, or cause to be performed, a good faith inspection to determine whether materials to be worked on or removed contain asbestos. The inspection must be documented by a written report maintained on file and made available upon request to the director.

(A) The good faith inspection must be conducted by an accredited inspector.

(B) Such good faith inspection is not required if the building/vessel and facility owner or owner's agent assumes that the suspect material contains asbestos and handles the material in accordance with WAC 296-62-07701 through 296-62-07753 or if the owner or the owner's agent is reasonably certain that asbestos will not be disturbed by the project.

(iii) The building/vessel and facility owner or owner's agent must provide, to all contractors submitting a bid to undertake any construction, renovation, remodeling, maintenance, repair, or demolition project, the written statement either of the reasonable certainty of nondisturbance of asbestos or of assumption of the presence of asbestos. Contractors must be provided the written report before they apply or bid on work.

(iv) Any building/vessel and facility owner or owners agent who fails to comply with WAC 296-62-07721 (2)(b)(ii) and (iii) must be subject to a mandatory fine of not less than two hundred fifty dollars for each violation. Each day the violation continues must be considered a separate violation. In addition, any construction, renovation, remodeling, maintenance, repair, or demolition which was started without meeting the requirements of this section must be halted immediately and cannot be resumed before meeting such requirements.

(v) Upon written or oral request, building/vessel and facility owner or owner's agent must make a copy of the written report required in this section available to the department of labor and industries and the collective bargaining representatives or employee representatives of any employee who may be exposed to any asbestos or asbestos-containing materials. A copy of the written report must be posted conspicuously at the location where employees report to work.

(vi) Building/vessel and facility owner or owner's agent must notify in writing the following persons of the presence, location and quantity of ACM or PACM, at worksites in their buildings/facilities/vessels.

(A) Prospective employers applying or bidding for work whose employees reasonably can be expected to work in or adjacent to areas containing such material;

(B) Employees of the owner who will work in or adjacent to areas containing such material;

(C) On multiemployer worksites, all employers of employees who will be performing work within or adjacent to areas containing such materials;

(D) Tenants who will occupy areas containing such materials.

(c) Duties of employers whose employees perform work subject to this standard in or adjacent to areas containing

ACM and PACM. Building/vessel and facility owner or owner's agents whose employees perform such work must comply with these provisions to the extent applicable.

(i) Before work subject to this standard is begun, building/vessel and facility owner or owner's agents must determine the presence, location, and quantity of ACM and/or PACM at the worksite according to WAC 296-62-07721 (2)(b).

(ii) Before work under this standard is performed employers of employees who will perform such work must inform the following persons of the location and quantity of ACM and/or PACM present at the worksite and the precautions to be taken to insure that airborne asbestos is confined to the area.

(A) Owners of the building/vessel or facility;

(B) Employees who will perform such work and employers of employees who work and/or will be working in adjacent areas;

(iii) Upon written or oral request, a copy of the written report required in this section must be made available to the department of labor and industries and the collective bargaining representatives or employee representatives of any employee who may be exposed to any asbestos or asbestos-containing materials. A copy of the written report must be posted conspicuously at the location where employees report to work.

(iv) Within 10 days of the completion of such work, the employer whose employees have performed work subject to this standard, must inform the building/vessel or facility owner and employers of employees who will be working in the area of the current location and quantity of PACM and/or ACM remaining in the former regulated area and final monitoring results, if any.

(d) In addition to the above requirements, all employers who discover ACM and/or PACM on a worksite must convey information concerning the presence, location and quantity of such newly discovered ACM and/or PACM to the owner and to other employers of employees working at the worksite, within 24 hours of the discovery.

(e) No contractor may commence any construction, renovation, remodeling, maintenance, repair, or demolition project without receiving a copy of the written response or statement required by WAC 296-62-07721 (2)(b). Any contractor who begins any project without the copy of the written report or statement will be subject to a mandatory fine of not less than two hundred fifty dollars per day. Each day the violation continues will be considered a separate violation.

(3) Criteria to rebut the designation of installed material as PACM.

(a) At any time, an employer and/or building/vessel owner may demonstrate, for purposes of this standard, that PACM does not contain asbestos. Building/vessel owners and/or employers are not required to communicate information about the presence of building material for which such a demonstration according to the requirements of (b) of this subsection has been made. However, in all such cases, the information, data and analysis supporting the determination that PACM does not contain asbestos, must be retained according to WAC 296-62-07727.

(b) An employer or owner may demonstrate that PACM does not contain asbestos by the following:

(i) Having a completed inspection conducted according to the requirements of AHERA (40 C.F.R. Part 763, Subpart E) which demonstrates that the material is not ACM;

(ii) Performing tests of the material containing PACM which demonstrate that no asbestos is present in the material. Such tests must include analysis of bulk samples collected in the manner described in 40 C.F.R. 763.86, Asbestos-containing materials in schools. The tests, evaluation and sample collection must be conducted by an accredited inspector. Analysis of samples must be performed by persons or laboratories with proficiency demonstrated by current successful participation in a nationally recognized testing program such as the National Voluntary Laboratory Accreditation Program (NVLAP) of the National Institute for Standards and Technology (NIST) or the Round Robin for bulk samples administered by the American Industrial Hygiene Associate (AIHA), or an equivalent nationally recognized Round Robin testing program.

(4) Warning signs.

(a) Warning signs that demarcate the regulated area must be provided and displayed at each location where a regulated area is required to be established by WAC 296-62-07711. Signs must be posted at such a location that an employee may read the signs and take necessary protective steps before entering the area marked by the signs.

(b) Sign specifications:

(i) The warning signs required by (a) of this subsection must bear the following information:

DANGER  
ASBESTOS  
MAY CAUSE CANCER  
CAUSES DAMAGE TO LUNGS  
AUTHORIZED PERSONNEL ONLY

(ii) In addition, where the use of respirators and protective clothing is required in the regulated area under this section, the warning signs ~~((shall))~~ must include the following:

WEAR RESPIRATORY PROTECTION AND  
PROTECTIVE CLOTHING IN THIS AREA

~~((iii))~~ Prior to June 1, 2016, employers may use the following legend in lieu of that specified in (b)(i) and (ii) of this subsection:

DANGER  
ASBESTOS  
CANCER AND LUNG DISEASE HAZARD  
AUTHORIZED PERSONNEL ONLY  
RESPIRATORS AND PROTECTIVE CLOTHING ARE REQUIRED IN  
THIS AREA))

(c) The employer ~~((shall))~~ must ensure that employees working in and contiguous to regulated areas comprehend the warning signs required to be posted by (a) of this subsection. Means to ensure employee comprehension may include the use of foreign languages, pictographs, and graphics.

(d) At the entrance to mechanical rooms/areas in which employees reasonably can be expected to enter and which contain TSI or surfacing ACM and PACM, the building/vessel and facility owner or owner's agent must post signs which identify the material which is present, its location, and appropriate

work practices which, if followed, will ensure that ACM and/or PACM will not be disturbed. The employer ~~((shall))~~ must ensure, to the extent feasible, that employees who come in contact with these signs can comprehend them. Means to ensure employee comprehension may include the use of foreign languages, pictographs, graphics, and awareness training.

(5) Warning labels.

(a) Labeling. Labels ~~((shall))~~ must be affixed to all raw materials, mixtures, scrap, waste, debris, and other products containing asbestos fibers, or to their containers. When a building owner or employer identifies previously installed ACM and/or PACM, labels or signs ~~((shall))~~ must be affixed or posted so that employees will be notified of what materials contain ACM and/or PACM. The employer ~~((shall))~~ must attach such labels in areas where they will clearly be noticed by employees who are likely to be exposed, such as at the entrance to mechanical room/areas. Signs required by subsection (1) of this section may be posted in lieu of labels so long as they contain the information required for labeling.

(b) Labels must be printed in large, bold letters on a contrasting background.

(c) Label specifications. In addition to the requirements of subsection (1) of this section, the employer ~~((shall))~~ must ensure that labels of bags or containers of protective clothing and equipment, scrap, waste, and debris containing asbestos fibers include the following information:

DANGER  
CONTAINS ASBESTOS FIBERS  
MAY CAUSE CANCER  
CAUSES DAMAGE TO LUNGS  
DO NOT BREATHE DUST  
AVOID CREATING DUST

~~((d))~~ Prior to June 1, 2015, employers may include the following information on raw materials, mixtures or labels of bags or containers of protective clothing and equipment, scrap, waste, and debris containing asbestos fibers in lieu of the labeling requirements in subsections (1)(a)(i) and (6)(c) of this section:

DANGER  
CONTAINS ASBESTOS FIBERS  
AVOID CREATING DUST  
CANCER AND LUNG DISEASE HAZARD  
AVOID BREATHING AIRBORNE ASBESTOS FIBERS))

(6) The provisions for labels and for safety data sheets required by subsection (1) of this section do not apply where:

(a) Asbestos fibers have been modified by a bonding agent, coating, binder, or other material, provided that the manufacturer can demonstrate that during any reasonably foreseeable use, handling, storage, disposal, processing, or transportation, no airborne concentrations of fibers of asbestos in excess of the excursion limit will be released; or

(b) Asbestos is present in a product in concentrations less than 1.0 percent by weight.

(7) Safety data sheets. Employers who are manufacturers or importers of asbestos, or asbestos products must comply with the requirements regarding development of safety data sheets as specified in WAC ~~((296-62-05413))~~ 296-901-14014, except as provided by subsection (6) of this section.

(8) When a building/vessel owner/or employer identifies previously installed PACM and/or ACM, labels or signs must be affixed or posted so that employees will be notified of what materials contain PACM and/or ACM. The employer must attach such labels in areas where they will clearly be noticed by employees who are likely to be exposed, such as at the entrance to mechanical rooms/areas. Signs required by subsection (4)(a) of this section may be posted in lieu of labels so long as they contain information required for labeling. The employer must ensure, to the extent feasible, that employees who come in contact with these signs can comprehend them. Means to ensure employee comprehension may include the use of foreign languages, pictographs, graphics, and awareness training.

AMENDATORY SECTION (Amending WSR 05-03-093, filed 1/18/05, effective 3/1/05)

**WAC 296-62-0772 Employee information and training.** (1) Certification.

(a) Only certified asbestos workers may work on an asbestos project as required in WAC 296-65-010 and 296-65-030.

(b) Only certified asbestos supervisors may supervise asbestos abatement projects as required in WAC 296-65-012 and 296-65-030.

(c) In cases where certification requirements of chapter 296-65 WAC do not apply, all employees must be trained according to the provisions of this section regardless of their exposure levels.

(d) Certification is not required for asbestos work on materials containing less than one percent asbestos.

(2) Training must be provided prior to or at the time of initial assignment, unless the employee has received equivalent training within the previous twelve months, and at least annually thereafter.

(3) Asbestos projects.

(a) Class I work must be considered an asbestos project. Only certified asbestos workers may do this work.

(b) Only certified workers may conduct Class II asbestos work that is considered an asbestos project.

(i) The following Class II asbestos work must be considered asbestos projects:

(A) All Class II asbestos work where critical barriers, equivalent isolation methods, or negative pressure enclosures are required; or

(B) All Class II asbestos work where asbestos containing materials do not stay intact (including removal of vinyl asbestos floor (VAT) or roofing materials by mechanical methods such as chipping, grinding, or sanding).

(ii) The following Class II asbestos work is not considered an asbestos project and is excluded from asbestos worker certification:

(A) All Class II asbestos work involving intact asbestos containing materials (for example, intact roofing materials, bituminous or asphalt pipeline coatings, and intact flooring/decking materials);

(B) All Class II asbestos work of less than one square foot of asbestos containing materials; or

(C) All Class II asbestos work involving asbestos-cement water pipe when the work is done in accordance with training approved by the department through the asbestos certification program (see WAC 296-65-015(4)).

(iii) Asbestos work involving the removal of one square foot or more of intact roofing materials by mechanical sawing or heavy equipment must meet the following requirements:

(A) Only certified asbestos workers may conduct mechanical sawing of intact roofing material;

(B) Noncertified asbestos workers may handle roofing dust, material and debris;

(C) Operators of heavy equipment (such as track hoes with clam shells and excavators) do not need to be certified asbestos workers in the removal or demolition of intact roofing materials.

(c) Only certified asbestos workers may conduct all Class III and Class IV asbestos work that is considered an asbestos project.

(i) The following asbestos work is considered an asbestos project:

(A) All Class III asbestos work where one square foot or more of asbestos containing materials that do not stay intact;

(B) All Class IV asbestos work where one square foot or more of asbestos containing materials that do not stay intact; or

(C) All Class III and Class IV asbestos work with pipe insulation.

(ii) Except for a project involving pipe insulation work, any project involving only Class III or Class IV asbestos work with less than one square foot of asbestos containing materials is not considered an asbestos project.

(4) Training requirements for asbestos work that is not considered an asbestos project or is excluded from asbestos worker certification.

(a) Class II asbestos work.

(i) Employers must provide eight-hours of training to employees who perform asbestos work on one generic category of asbestos containing materials (ACM). When performing asbestos work in more than one category of asbestos containing materials, additional training must be used to supplement the first eight hour training course.

(ii) The training course must include:

~~((A) Hands on training that applies to the category of asbestos containing materials;~~

~~• Specific work practices and engineering controls related to the category of asbestos containing materials present as specified in WAC 296-62-07712, and~~

~~• All the minimum elements of subsection (5) of this section.)~~

(A) Hands-on training that applies to the category of asbestos containing materials;

(B) Specific work practices and engineering controls related to the category of asbestos containing materials present as specified in WAC 296-62-07712; and

(C) All the minimum elements of subsection (5) of this section.

(b) Class III asbestos work (maintenance and custodial work in buildings containing asbestos-containing materials).

(i) Employers must provide training with curriculum and training methods equivalent to the sixteen-hour operations and maintenance course developed by the EPA. (See 40 C.F.R. 763.92 (a)(2).) For those employees whose only affected work is Class II work as described in subsection (4)(a)(i) of this section, employers must meet this 16-hour training requirement or provide training that meets the eight hours Class II requirements in subsection (4)(a) of this section.

(ii) Sixteen hours of training must include:

- ~~((Hands-on training in the use of respiratory protection and work practices; and~~
- ~~• All the minimum elements of subsection (5) of this section.)~~

(A) Hands-on training in the use of respiratory protection and work practices; and

(B) All the minimum elements of subsection (5) of this section.

(c) Class IV asbestos work (maintenance and custodial work in buildings containing asbestos-containing materials).

(i) Employers must provide at least two hours of training with curriculum and training methods equivalent to the awareness training course developed by the EPA.

(ii) Training must include:

- ~~((Available information concerning the location of PACM, ACM, asbestos-containing flooring materials or flooring materials where the absence of asbestos has not been certified;~~
- ~~• Instruction on how to recognize damaged, deteriorated, and delimitation of asbestos-containing building materials; and~~
- ~~• All of the minimum elements of subsection (5) of this section.)~~

(A) Available information concerning the location of PACM, ACM, asbestos-containing flooring materials or flooring materials where the absence of asbestos has not been certified;

(B) Instruction on how to recognize damaged, deteriorated, and delimitation of asbestos-containing building materials; and

(C) All of the minimum elements of subsection (5) of this section.

(5) The training program must be conducted in a manner which the employee is able to understand. The employer must ensure that each employee is informed of the following:

- (a) The health effects associated with asbestos exposure;
- (b) The relationship between smoking and exposure to asbestos producing lung cancer;

(c) Methods of recognizing asbestos and quantity, location, manner of use, release (including the requirements of WAC 296-62-07721 (1)(c) and (2)(b) to presume certain building materials contain asbestos), and storage of asbestos and the specific nature of operations which could result in exposure to asbestos;

(d) The engineering controls and work practices associated with the employee's job assignment;

(e) The specific procedures implemented to protect employees from exposure to asbestos, such as appropriate work practices, housekeeping procedures, hygiene facilities, decontamination procedures, emergency and clean-up procedures (including where Class III and IV work is performed, the contents "Managing Asbestos In Place" (EPA 20T-2003, July 1990) or its equivalent in content), personal protective equipment to be used, waste disposal procedures, and any necessary instructions in the use of these controls and procedures;

(f) The purpose, proper use, and limitations of protective clothing;

(g) The purpose and a description of the medical surveillance program required by WAC 296-62-07725;

(h) The content of this standard, including appendices;

(i) The names, addresses and phone numbers of public health organizations which provide information, materials, and/or conduct programs concerning smoking cessation. The employer may distribute the list of such organizations contained in Appendix I, to comply with this requirement;

(j) The requirements for posting signs and affixing labels and the meaning of the required legends for such signs and labels; and

(k) The purpose, proper use, limitations, and other training requirements for respiratory protection as required by chapter 296-842 WAC (see WAC 296-842-11005, 296-842-16005, and 296-842-19005).

(6) The employer must also provide, at no cost to employees who perform housekeeping operations in a facility which contains ACM or PACM, an asbestos awareness training course to all employees who are or will work in areas where ACM and/or PACM is present who work in buildings containing asbestos-containing materials, which must, at a minimum, contain the following elements:

- ~~((Health effects of asbestos;~~
- ~~• Locations of ACM and PACM in the building/facility;~~
- ~~• Recognition of ACM and PACM damage and deterioration;~~
- ~~• Requirements in this standard relating to housekeeping; and~~
- ~~• Proper response to fiber release episodes.)~~

(a) Health effects of asbestos;

(b) Locations of ACM and PACM in the building/facility;

(c) Recognition of ACM and PACM damage and deterioration;

(d) Requirements in this standard relating to housekeeping; and

(e) Proper response to fiber release episodes.

Each such employee must be so trained at least once a year.

(7) Access to information and training materials.

(a) The employer must make a copy of this standard and its appendices readily available without cost to all affected employees.

(b) The employer must provide, upon request, all materials relating to the employee information and training program to the director.

(c) The employer must inform all employees concerning the availability of self-help smoking cessation program material. Upon employee request, the employer must distribute such material, consisting of NIH Publication No. 89-1647, or equivalent self-help material, which is approved or published by a public health organization listed in Appendix I, WAC 296-62-07751.

**AMENDATORY SECTION** (Amending WSR 97-01-079, filed 12/17/96, effective 3/1/97)

**WAC 296-62-07723 Housekeeping.** (1) All surfaces ~~((shall))~~ **must** be maintained as free as practicable of accumulations of dusts and waste containing asbestos.

(2) All spills and sudden releases of material containing asbestos ~~((shall))~~ **must** be cleaned up as soon as possible.

(3) Surfaces contaminated with asbestos may not be cleaned by the use of compressed air.

(4) Vacuuming. HEPA-filtered vacuuming equipment ~~((shall))~~ **must** be used for vacuuming. The equipment ~~((shall))~~ **must** be used and emptied in a manner which minimizes the reentry of asbestos into the workplace.

(5) Shoveling, dry sweeping, and dry clean-up of asbestos may be used only where vacuuming and/or wet cleaning are not feasible.

(6) Waste disposal. Waste, scrap, debris, bags, containers, equipment, and clothing contaminated with asbestos consigned for disposal, ~~((shall))~~ **must** be collected and disposed of in sealed impermeable bags, or other closed, impermeable containers. To avoid breakage, bags ~~((shall))~~ **must** be at least six mils in thickness and shall not be dragged or slid across rough or abrasive surfaces.

(7) Waste removal. Whenever a negative-pressure enclosure is required by WAC 296-62-07712, the employer whenever feasible, ~~((shall))~~ **must** establish a waste-load-out area that is adjacent and connected to the negative-pressure enclosure, constructed of a two chamber air lock, for the decontamination and removal of asbestos debris.

(8) Deterioration. Asbestos and asbestos containing material which has become damaged or deteriorated ~~((shall))~~ **must** be repaired, enclosed, encapsulated, or removed.

(9) Care of asbestos-containing flooring/decking material.

(a) Sanding of asbestos-containing floor/deck material is prohibited.

(b) Stripping of finishes ~~((shall))~~ **must** be conducted using low abrasion pads at speeds lower than 300 rpm and wet methods.

(c) Burnishing or dry buffing may be performed only on asbestos-containing flooring/decking which has sufficient finish so that the pad cannot contact the asbestos-containing material.

(d) Dust and debris in an area containing TSI or surfacing ACM/PACM or visibly deteriorated ACM, ~~((shall))~~ **must** not be dusted or swept dry, or vacuumed without using a HEPA filter.

(10) Waste and debris and accompanying dust in an area containing accessible thermal system insulation or surfacing material or visibly deteriorated ACM:

(a) ~~((shall))~~ **Must** not be dusted or swept dry, or vacuumed without using a HEPA filter;

(b) ~~((shall))~~ **Must** be promptly cleaned up and disposed of in leak tight containers.

**AMENDATORY SECTION** (Amending WSR 06-05-027, filed 2/7/06, effective 4/1/06)

**WAC 296-62-07725 Medical surveillance.** (1) General.

(a) Employees covered. The employer ~~((shall))~~ **must** institute a medical surveillance program for all employees who are or will be exposed to airborne concentrations of fibers of asbestos at or above the permissible exposure limits. Exception.

Employers in the construction or shipyard industries ~~((shall))~~ **must** institute a medical surveillance program for all employees who for a combined total of thirty or more days per year are engaged in Class I, II, and III work, or are exposed at or above the permissible exposure limit for combined thirty days or more per year; or who are required by the standard to wear negative pressure respirators. For the purpose of this subsection, any day in which an employee engaged in Class II or III work or a combination thereof for one hour or less (taking into account the entire time spent on the removal operation, including cleanup), and, while doing so adheres to the work practices specified in this standard, shall not be counted.

(b) Examination by a physician.

(i) The employer ~~((shall))~~ **must** ensure that all medical examinations and procedures are performed by or under the supervision of a licensed physician, and ~~((shall))~~ **must** be provided without cost to the employee and at a reasonable time and place.

(ii) Persons other than licensed physicians, who administer the pulmonary function testing required by this section, ~~((shall))~~ **must** complete a training course in spirometry sponsored by an appropriate academic or professional institution.

(2) Preplacement examinations.

(a) Except as provided by WAC 296-62-07725 (1)(a), before an employee is assigned to an occupation exposed to airborne concentrations of asbestos, a preplacement medical examination ~~((shall))~~ **must** be provided or made available by the employer. Examinations administered using the thirty or more days per year criteria of WAC 296-62-07725 (1)(a) ~~((shall))~~ **must** be given within ten working days following the thirtieth day of exposure. Examinations must be given prior to assignment of employees to areas where negative-pressure respirators are worn.

(b) All examinations ~~((shall))~~ **must** include, as a minimum, a medical and work history: A complete physical examination of all systems with special emphasis on the pulmonary, cardiovascular, and gastrointestinal systems; completion of the respiratory disease standardized questionnaire in WAC 296-62-07741, Appendix D, Part 1; a chest roentgenogram (posterior-anterior 14x17 inches); pulmonary function tests to include forced vital capacity (FVC) and

forced expiratory volume at 1 second (FEV<sub>1.0</sub>); and any additional tests deemed appropriate by the examining physician. Interpretation and classification of chest roentgenograms ((shall)) must be conducted in accordance with WAC 296-62-07743, Appendix E.

(3) Periodic examinations.

(a) Periodic medical examinations ((shall)) must be made available annually.

(b) The scope of the medical examination ((shall)) must be in conformance with the protocol established in subsection (2)(b) of this section, except that the frequency of chest roentgenograms ((shall)) must be conducted in accordance with Table 2 of this section, and the abbreviated standardized questionnaire contained in WAC 296-62-07741, Appendix D, Part 2, ((shall)) must be administered to the employee.

TABLE 2—FREQUENCY OF CHEST ROENTGENOGRAMS

Years since first exposure	Age of employee		
	15 to 35	35+ to 45	45+
0 to 10 . . . . .	Every 5 years	Every 5 years	Every 5 years.
10+ . . . . .	Every 5 years	Every 2 years	Every 1 year.

(c) If the examining physician determines that any of the examinations should be provided more frequently than specified, the employer ((shall)) must provide such examinations to affected employees at the frequencies specified by the physician.

(4) Termination of employment examinations.

(a) The employer ((shall)) must provide, or make available, a termination of employment medical examination for any employee who has been exposed to airborne concentrations of fibers of asbestos at or above the permissible exposure limits.

(b) The medical examination ((shall)) must be in accordance with the requirements of the periodic examinations stipulated in subsection (3) of this section, and ((shall)) must be given within thirty calendar days before or after the date of termination of employment.

(5) Recent examinations. No medical examination is required of any employee, if adequate records show that the employee has been examined in accordance with subsection (2), (3), or (4) of this section within the past one-year period.

(6) Information provided to the physician. The employer ((shall)) must provide the following information to the examining physician:

(a) A copy of this standard and Appendices D, E, and H of WAC 296-62-07741, 296-62-07743, and 296-62-07749 respectively.

(b) A description of the affected employee's duties as they relate to the employee's exposure.

(c) The employee's representative exposure level or anticipated exposure level.

(d) A description of any personal protective and respiratory equipment used or to be used.

(e) Information from previous medical examinations of the affected employee that is not otherwise available to the examining physician.

(7) Physician's written opinion.

(a) The employer ((shall)) must obtain a written opinion from the examining physician. This written opinion ((shall))

must contain the results of the medical examination and ((shall)) must include:

(i) The physician's opinion as to whether the employee has any detected medical conditions that would place the employee at an increased risk of material health impairment from exposure to asbestos;

(ii) Any recommended limitations on the employee or upon the use of personal protective equipment such as clothing or respirators;

(iii) A statement that the employee has been informed by the physician of the results of the medical examination and of any medical conditions resulting from asbestos exposure that require further explanation or treatment; and

(iv) A statement that the employee has been informed by the physician of the increased risk of lung cancer attributable to the combined effect of smoking and asbestos exposure.

(b) The employer ((shall)) must instruct the physician not to reveal in the written opinion given to the employer specific findings or diagnoses unrelated to occupational exposure to asbestos.

(c) The employer ((shall)) must provide a copy of the physician's written opinion to the affected employee within thirty days from its receipt.

AMENDATORY SECTION (Amending WSR 04-10-026, filed 4/27/04, effective 8/1/04)

**WAC 296-62-07727 Recordkeeping.** (1) Exposure measurements.

(a) The employer ((shall)) must keep an accurate record of all measurements taken to monitor employee exposure to asbestos as prescribed in WAC 296-62-07709.

(b) This record ((shall)) must include at least the following information:

(i) Name of employer;

(ii) Name of person conducting monitoring;

(iii) The date of measurement;

(iv) Address of operation or activity;

(v) Description of the operation or activity involving exposure to asbestos that is being monitored;

(vi) Personal or area sample;

(vii) Name, Social Security number, and exposure level of the employees whose exposures are represented;

(viii) Type of protective devices worn, if any;

(ix) Pump calibration date and flow rate;

(x) Total volume of air sampled;

(xi) Name and address of analytical laboratory;

(xii) Number, duration, and results (f/cc) of samples taken;

(xiii) Date of analysis; and

(xiv) Sampling and analytical methods used and evidence of their accuracy.

(c) The employer ((shall)) must maintain this record for the duration of employment plus thirty years, in accordance with chapter 296-802 WAC.

(2) Objective data for exempted operations.

(a) Where the processing, use, or handling of products made from or containing asbestos is exempted from other requirements of this section under WAC 296-62-07709 (2)(a)(iii) and (3)(b)(i), the employer ((shall)) must establish

and maintain an accurate record of objective data reasonably relied upon in support of the exemption.

(b) The record ((shall)) must include at least the following:

- (i) The product qualifying for exemption;
- (ii) The source of the objective data;
- (iii) The testing protocol, results of testing, and/or analysis of the material for the release of asbestos;
- (iv) A description of the operation exempted and how the data support the exemption; and
- (v) Other data relevant to the operations, materials, processing, or employee exposures covered by the exemption.

(c) The employer ((shall)) must maintain this record for the duration of the employer's reliance upon such objective data.

Note: The employer may utilize the services of competent organizations such as industry trade associations and employee associations to maintain the records required by this section.

### (3) Medical surveillance.

(a) The employer ((shall)) must establish and maintain an accurate record for each employee subject to medical surveillance by WAC 296-62-07725 (1)(a), in accordance with chapter 296-802 WAC.

(b) The record ((shall)) must include at least the following information:

- (i) The name and Social Security number of the employee;
- (ii) Physician's written opinions;
- (iii) Any employee medical complaints related to exposure to asbestos;
- (iv) A copy of the information provided to the physician as required by WAC 296-62-07725(6); and
- (v) A copy of the employee's medical examination results, including the medical history, questionnaire responses, results of any tests, and physicians recommendations.

(c) The employer ((shall)) must ensure that this record is maintained for the duration of employment plus thirty years, in accordance with chapter 296-802 WAC.

(4) Training. The employer ((shall)) must maintain all employee training records for one year beyond the last date of employment of that employee.

### (5) Availability.

(a) The employer, upon written request, ((shall)) must make all records required to be maintained by this section available to the director for examination and copying.

(b) The employer, upon request, ((shall)) must make any exposure records required by subsection (1) of this section available for examination and copying to affected employees, former employees, designated representatives, and the director, in accordance with chapter 296-802 WAC.

(c) The employer, upon request, ((shall)) must make employee medical records required by subsection (2) of this section available for examination and copying to the subject employee, to anyone having the specific written consent of the subject employee, and the director, in accordance with chapter 296-802 WAC.

(6) Transfer of records.

(a) The employer ((shall)) must comply with the requirements concerning transfer of records set forth in chapter 296-802 WAC.

(b) Whenever the employer ceases to do business and there is no successor employer to receive and retain the records for the prescribed period, the employer ((shall)) must notify the director at least ninety days prior to disposal of records and, upon request, transmit them to the director.

(7) Data to rebut PACM. Where the building owner and employer have relied on data to demonstrate that PACM is not asbestos-containing, such data ((shall)) must be maintained for as long as they are relied upon to rebut the presumption.

(8) Records of required notifications. Where the building owner has communicated and received information concerning the identification, location and quantity of ACM and PACM, written records of such notifications and their content ((shall)) must be maintained by the building owner for the duration of ownership and ((shall)) must be transferred to successive owners of such buildings/facilities.

AMENDATORY SECTION (Amending WSR 99-17-026, filed 8/10/99, effective 11/10/99)

**WAC 296-62-07728 Competent person.** (1) General. For all construction and shipyard work covered by this standard, the employer must designate a competent person, having the qualifications and authorities for ensuring worker safety and health as required by chapter 296-155 WAC.

(2) Required inspections by the competent person. WAC 296-155-110(9) which requires health and safety prevention programs to provide for frequent and regular inspections on the job sites, materials, and equipment to be made by the competent person, is incorporated.

(3) Additional inspections. In addition, the competent person must make frequent and regular inspections of the job sites in order to perform the duties set out below in this section. For Class I jobs, on-site inspections must be made at least once during each work shift, and at any time at employee request. For Class II and III jobs, on-site inspections must be made at intervals sufficient to assess whether conditions have changed, and at any reasonable time at employee request.

(4) On all worksites where employees are engaged in Class I or II asbestos work, the competent person designated in accordance with WAC 296-62-07712 must perform or supervise the following duties, as applicable:

- (a) Set up the regulated area, enclosure, or other containment;
- (b) Ensure (by on-site inspection) the integrity of the enclosure or containment;
- (c) Set up procedures to control entry and exit from the enclosure and/or area;
- (d) Supervise all employee exposure monitoring required by this section and ensure that it is conducted as required by WAC 296-62-07709;

(e) Ensure that employees working within the enclosure and/or using glovebags wear protective clothing and respirators as required by WAC 296-62-07715 and 296-62-07717;

(f) Ensure through on-site supervision, that employees set up and remove engineering controls, use work practices and personal protective equipment in compliance with all requirements;

(g) Ensure that employees use the hygiene facilities and observe the decontamination procedures specified in WAC 296-62-07719;

(h) Ensure that through on-site inspection engineering controls are functioning properly and employees are using proper work practices; and

(i) Ensure that notification requirements in WAC 296-62-07721 are met.

(5) Training for competent person.

(a) For Class I and II asbestos work the competent person must be trained in all aspects of asbestos removal and handling, including:

- ((~~• Abatement,~~
- ~~• Installation,~~
- ~~• Removal and handling,~~
- ~~• The contents of this standard,~~
- ~~• The identification of asbestos,~~
- ~~• Removal procedures where appropriate, and~~
- ~~• Other practices for reducing the hazard.))~~

(i) Abatement;

(ii) Installation;

(iii) Removal and handling;

(iv) The contents of this standard;

(v) The identification of asbestos;

(vi) Removal procedures where appropriate; and

(vii) Other practices for reducing the hazard.

Such training must be the certified asbestos supervisor training specified in WAC 296-65-003, 296-65-012, and 296-65-030.

(b) For Class III and IV asbestos work:

(i) The competent person must be certified as an asbestos supervisor as prescribed in WAC 296-65-012 and 296-65-030 for Class III and IV work involving an asbestos project of 3 square feet or 3 linear feet or more of asbestos containing material.

(ii) For Class III and IV asbestos work involving less than 3 square feet or 3 linear feet of asbestos containing material, the competent person must be trained in:

- ((~~• Aspects of asbestos handling appropriate for the nature of the work, to include procedures for setting up glove bags and mini-enclosures,~~
- ~~• Practices for reducing asbestos exposures,~~
- ~~• Use of wet methods,~~
- ~~• The contents of this standard, and~~
- ~~• The identification of asbestos.))~~

(A) Aspects of asbestos handling appropriate for the nature of the work, to include procedures for setting up glove bags and mini-enclosures;

(B) Practices for reducing asbestos exposures;

(C) Use of wet methods;

(D) The contents of this standard; and

(E) The identification of asbestos.

Such training must include successful completion of a course equivalent in curriculum and training method to the 16-hour Operations and Maintenance course developed by EPA for maintenance and custodial workers (see 40 C.F.R. 763.92 (a)(2)) or its equivalent in stringency, content and length.

AMENDATORY SECTION (Amending WSR 99-17-026, filed 8/10/99, effective 11/10/99)

**WAC 296-62-07735 Appendix A—WISHA reference method—Mandatory.** This mandatory appendix specifies the procedure for analyzing air samples for asbestos, tremolite, anthophyllite, and actinolite and specifies quality control procedures that must be implemented by laboratories performing the analysis. The sampling and analytical methods described below represent the elements of the available monitoring methods (such as Appendix B to this section, the most current version of the WISHA method ID-60, or the most current version of the NIOSH 7400 method) which WISHA considers to be essential to achieve adequate employee exposure monitoring while allowing employers to use methods that are already established within their organizations. All employers who are required to conduct air monitoring under WAC 296-62-07709 are required to utilize analytical laboratories that use this procedure, or an equivalent method, for collecting and analyzing samples.

(1) Sampling and analytical procedure.

(a) The sampling medium for air samples must be mixed cellulose ester filter membranes. These must be designated by the manufacturer as suitable for asbestos, tremolite, anthophyllite, and actinolite counting. See below for rejection of blanks.

(b) The preferred collection device is the 25-mm diameter cassette with an open-faced 50-mm electrically conductive extension cowl. The 37-mm cassette may be used if necessary but only if written justification for the need to use the 37-mm filter cassette accompanies the sample results in the employee's exposure monitoring record. Do not reuse or reload cassettes for asbestos sample collection.

(c) An air flow rate between 0.5 liter/min and 4.0 liters/min must be selected for the 25-mm cassette. If the 37-mm cassette is used, an air flow rate between 1 liter/min and 4.0 liters/min must be selected.

(d) Where possible, a sufficient air volume for each air sample must be collected to yield between one hundred and one thousand three hundred fibers per square millimeter on the membrane filter. If a filter darkens in appearance or if loose dust is seen on the filter, a second sample must be started.

(e) Ship the samples in a rigid container with sufficient packing material to prevent dislodging the collected fibers. Packing material that has a high electrostatic charge on its surface (e.g., expanded polystyrene) cannot be used because such material can cause loss of fibers to the sides of the cassette.

(f) Calibrate each personal sampling pump before and after use with a representative filter cassette installed between the pump and the calibration devices.

(g) Personal samples must be taken in the "breathing zone" of the employee (i.e., attached to or near the collar or lapel near the worker's face).

(h) Fiber counts must be made by positive phase contrast using a microscope with an 8 to 10 X eyepiece and a 40 to 45 X objective for a total magnification of approximately 400 X and a numerical aperture of 0.65 to 0.75. The microscope ((shall)) must also be fitted with a green or blue filter.

(i) The microscope must be fitted with a Walton-Beckett eyepiece graticule calibrated for a field diameter of one hundred micrometers (+/-2 micrometers).

(j) The phase-shift detection limit of the microscope must be about 3 degrees measured using the HSE phase shift test slide as outlined below.

(i) Place the test slide on the microscope stage and center it under the phase objective.

(ii) Bring the blocks of grooved lines into focus.

Note: The slide consists of seven sets of grooved lines (ca. 20 grooves to each block) in descending order of visibility from sets one to seven, seven being the least visible. The requirements for asbestos, tremolite, anthophyllite, and actinolite counting are that the microscope optics must resolve the grooved lines in set three completely, although they may appear somewhat faint, and that the grooved lines in sets six and seven must be invisible. Sets four and five must be at least partially visible but may vary slightly in visibility between microscopes. A microscope that fails to meet these requirements has either too low or too high a resolution to be used for asbestos, tremolite, anthophyllite, and actinolite counting.

(iii) If the image deteriorates, clean and adjust the microscope optics. If the problem persists, consult the microscope manufacturer.

(k) Each set of samples taken will include ten percent blanks or a minimum of two blanks. These blanks must come from the same lot as the filters used for sample collection. The field blank results must be averaged and subtracted from the analytical results before reporting. Any samples represented by a blank having a fiber count in excess of the detection limit of the method being used must be rejected.

(l) The samples must be mounted by the acetone/triacetin method or a method with an equivalent index of refraction and similar clarity.

(m) Observe the following counting rules.

(i) Count only fibers equal to or longer than five micrometers. Measure the length of curved fibers along the curve.

(ii) Count all particles as asbestos, tremolite, anthophyllite, and actinolite that have a length-to-width ratio (aspect ratio) of three to one or greater.

(iii) Fibers lying entirely within the boundary of the Walton-Beckett graticule field must receive a count of one. Fibers crossing the boundary once, having one end within the circle, must receive the count of one-half. Do not count any fiber that crosses the graticule boundary more than once. Reject and do not count any other fibers even though they may be visible outside the graticule area.

(iv) Count bundles of fibers as one fiber unless individual fibers can be identified by observing both ends of an individual fiber.

(v) Count enough graticule fields to yield 100 fibers. Count a minimum of 20 fields; stop counting at 100 fields regardless of fiber count.

(n) Blind recounts must be conducted at the rate of ten percent.

(2) Quality control procedures.

(a) Intralaboratory program. Each laboratory and/or each company with more than one microscopist counting slides must establish a statistically designed quality assurance program involving blind recounts and comparisons between microscopists to monitor the variability of counting by each microscopist and between microscopists. In a company with more than one laboratory, the program must include all laboratories and must also evaluate the laboratory-to-laboratory variability.

(b) Interlaboratory program.

(i) Each laboratory analyzing asbestos, tremolite, anthophyllite, and actinolite samples for compliance determination ((shall)) must implement an interlaboratory quality assurance program that as a minimum includes participation of at least two other independent laboratories. Each laboratory must participate in round robin testing at least once every six months with at least all the other laboratories in its interlaboratory quality assurance group. Each laboratory must submit slides typical of its own work load for use in this program. The round robin ((shall)) must be designed and results analyzed using appropriate statistical methodology.

(ii) All laboratories should participate in a national sample testing scheme such as the Proficiency Analytical Testing Program (PAT), the Asbestos Registry sponsored by the American Industrial Hygiene Association (AIHA).

(c) All individuals performing asbestos, tremolite, anthophyllite, and actinolite analysis must have taken the NIOSH course for sampling and evaluating airborne asbestos, tremolite, anthophyllite, and actinolite dust or an equivalent course, recognized by the department.

(d) When the use of different microscopes contributes to differences between counters and laboratories, the effect of the different microscope must be evaluated and the microscope must be replaced, as necessary.

(e) Current results of these quality assurance programs must be posted in each laboratory to keep the microscopists informed.

**AMENDATORY SECTION** (Amending WSR 87-24-051, filed 11/30/87)

**WAC 296-62-07743 Appendix E—Interpretation and classification of chest roentgenograms—Mandatory.**

(1) Chest roentgenograms ((shall)) must be interpreted and classified in accordance with a professionally accepted classification system and recorded on an interpretation form following the format of the CDC/NIOSH (M) 2.8 form. As a minimum, the content within the bold lines of this form (items one through four) ((shall)) must be included. This form is not to be submitted to NIOSH.

(2) Roentgenograms ((shall)) must be interpreted and classified only by a B-reader, a board eligible/certified radiologist, or an experienced physician with known expertise in pneumoconioses.

(3) All interpreters, whenever interpreting chest roentgenograms made under this section, ((shall)) must have immediately available for reference a complete set of the

ILO-U/C International Classification of Radiographs for Pneumoconioses, 1980.

AMENDATORY SECTION (Amending WSR 00-06-075, filed 3/1/00, effective 4/10/00)

**WAC 296-62-07745 Appendix F—Work practices and engineering controls for automotive brake and clutch inspection, disassembly, repair and assembly—Mandatory.** This mandatory appendix specifies engineering controls and work practices that must be implemented by the employer during automotive brake and clutch inspection, disassembly, repair, and assembly operations. Proper use of these engineering controls and work practices will reduce employees' asbestos exposure below the permissible exposure level during clutch and brake inspection, disassembly, repair, and assembly operations. The employer ~~((shall))~~ must institute engineering controls and work practices using either the method set forth in (1) or (2) of this appendix, or any other method which the employer can demonstrate to be equivalent in terms of reducing employee exposure to asbestos as defined and which meets the requirements described in (3) of this appendix, for those facilities in which no more than five pairs of brakes or five clutches are inspected, disassembled, reassembled and/or repaired per week, the method set forth in (4) of this appendix may be used:

(1) Negative pressure enclosure/HEPA vacuum system method.

(a) The brake and clutch inspection, disassembly, repair, and assembly operations ~~((shall))~~ must be enclosed to cover and contain the clutch or brake assembly and to prevent the release of asbestos fibers into the worker's breathing zone.

(b) The enclosure ~~((shall))~~ must be sealed tightly and thoroughly inspected for leaks before work begins on brake and clutch inspection, disassembly, repair and assembly.

(c) The enclosure ~~((shall))~~ must be such that the worker can clearly see the operation and ~~((shall))~~ must provide impermeable sleeves through which the worker can handle the brake and clutch inspection, disassembly, repair and assembly. The integrity of the sleeves and ports ~~((shall))~~ must be examined before work begins.

(d) A HEPA-filtered vacuum ~~((shall))~~ must be employed to maintain the enclosure under negative pressure throughout the operation. Compressed-air may be used to remove asbestos fibers or particles from the enclosure.

(e) The HEPA vacuum ~~((shall))~~ must be used first to loosen the asbestos containing residue from the brake and clutch parts and then to evacuate the loosened asbestos containing material from the enclosure and capture the material in the vacuum filter.

(f) The vacuum's filter, when full, ~~((shall))~~ must be first wetted with a fine mist of water, then removed and placed immediately in an impermeable container, labeled according to WAC 296-62-07721(6) and disposed of according to WAC 296-62-07723.

(g) Any spills or releases of asbestos containing waste material from inside of the enclosure or vacuum hose or vacuum filter ~~((shall))~~ must be immediately cleaned up and disposed of according to WAC 296-62-07723.

(2) Low pressure/wet cleaning method.

(a) A catch basin ~~((shall))~~ must be placed under the brake assembly, positioned to avoid splashes and spills.

(b) The reservoir ~~((shall))~~ must contain water containing an organic solvent or wetting agent. The flow of liquid ~~((shall))~~ must be controlled such that the brake assembly is gently flooded to prevent the asbestos-containing brake dust from becoming airborne.

(c) The aqueous solution ~~((shall))~~ must be allowed to flow between the brake drum and brake support before the drum is removed.

(d) After removing the brake drum, the wheel hub and back of the brake assembly ~~((shall))~~ must be thoroughly wetted to suppress dust.

(e) The brake support plate, brake shoes and brake components used to attach the brake shoes ~~((shall))~~ must be thoroughly washed before removing the old shoes.

(f) In systems using filters, the filters, when full, ~~((shall))~~ must be first wetted with a fine mist of water, then removed and placed immediately in an impermeable container, labeled according to WAC 296-62-07721(6) and disposed of according to WAC 296-62-07723.

(g) Any spills of asbestos-containing aqueous solution or any asbestos-containing waste material ~~((shall))~~ must be cleaned up immediately and disposed of according to WAC 296-62-07723.

(h) The use of dry brushing during low pressure/wet cleaning operations is prohibited.

(3) Equivalent methods. An equivalent method is one which has sufficient written detail so that it can be reproduced and has been demonstrated that the exposures resulting from the equivalent method are equal to or less than the exposure which would result from the use of the method described in subsection (1) of this appendix. For purposes of making this comparison, the employer ~~((shall))~~ must assume that exposures resulting from the use of the method described in subsection (1) of this appendix ~~((shall))~~ must not exceed 0.016 f/cc, as measured by the WISHA reference method and as averaged over at least eighteen personal samples.

(4) Wet method.

(a) A spray bottle, hose nozzle, or other implement capable of delivering a fine mist of water or amended water or other delivery system capable of delivering water at low pressure, ~~((shall))~~ must be used to first thoroughly wet the brake and clutch parts. Brake and clutch components ~~((shall))~~ must then be wiped clean with a cloth.

(b) The cloth ~~((shall))~~ must be placed in an impermeable container, labeled according to WAC 296-62-07721(6) and then disposed of according to WAC 296-62-07723, or the cloth ~~((shall))~~ must be laundered in a way to prevent the release of asbestos fibers in excess of 0.1 fiber per cubic centimeter of air.

(c) Any spills of solvent or any asbestos containing waste material ~~((shall))~~ must be cleaned up immediately according to WAC 296-62-07723.

(d) The use of dry brushing during the wet method operations is prohibited.

AMENDATORY SECTION (Amending WSR 06-16-106, filed 8/1/06, effective 9/1/06)

**WAC 296-62-08003 Hexavalent chromium. Scope.**

This standard applies to occupational exposures to chromium (VI) in all forms and compounds in general industry; construction; shipyards, marine terminals, and longshoring, except:

((\*) (1) Agricultural operations covered by chapter 296-307 WAC, Safety standards for agriculture((-

\*)):

(2) Exposures that occur in the application of pesticides regulated by the Washington state department of agriculture or another federal government agency (e.g., the treatment of wood with preservatives);

((\*) (3) Exposures to portland cement; or

((\*) (4) Where the employer has objective data demonstrating that a material containing chromium or a specific process, operation, or activity involving chromium cannot release dusts, fumes, or mists of chromium (VI) in concentrations at or above 0.5 (mu)g/m<sup>3</sup> as an 8-hour time-weighted average (TWA) under any expected conditions of use.

AMENDATORY SECTION (Amending WSR 06-16-106, filed 8/1/06, effective 9/1/06)

**WAC 296-62-08005 Definitions.** For the purposes of this section the following definitions apply:

**Action level** ((means)). A concentration of airborne chromium (VI) of 2.5 micrograms per cubic meter of air (2.5 (mu)g/m<sup>3</sup>) calculated as an 8-hour time-weighted average (TWA).

**Chromium (VI) (hexavalent chromium or Cr(VI))** ((means)). Chromium with a valence of positive six, in any form and in any compound.

**Emergency** ((means)). Any occurrence that results, or is likely to result, in an uncontrolled release of chromium (VI). If an incidental release of chromium (VI) can be controlled at the time of release by employees in the immediate release area, or by maintenance personnel, it is not an emergency.

**Employee exposure** ((means)). The exposure to airborne chromium (VI) that would occur if the employee were not using a respirator.

**High-efficiency particulate air (HEPA) filter** ((means)). A filter that is at least 99.97 percent efficient in removing mono-dispersed particles of 0.3 micrometers in diameter or larger.

**Historical monitoring data** ((means)). Data from chromium (VI) monitoring conducted prior to July 31, 2006, obtained during work operations conducted under workplace conditions closely resembling the processes, types of material, control methods, work practices, and environmental conditions in the employer's current operations.

**Objective data** ((means)). Information such as air monitoring data from industry-wide surveys or calculations based on the composition or chemical and physical properties of a substance demonstrating the employee exposure to chromium (VI) associated with a particular product or material or a specific process, operation, or activity. The data must reflect workplace conditions closely resembling the processes, types of material, control methods, work practices,

and environmental conditions in the employer's current operations.

**Physician or other licensed health care professional (PLHCP)** ((is)). An individual whose legally permitted scope of practice (i.e., license, registration, or certification) allows him or her to independently provide or be delegated the responsibility to provide some or all of the particular health care services required by WAC 296-62-08023.

**Regulated area** ((means)). An area, demarcated by the employer, where an employee's exposure to airborne concentrations of chromium (VI) exceeds, or can reasonably be expected to exceed, the PEL.

AMENDATORY SECTION (Amending WSR 06-16-106, filed 8/1/06, effective 9/1/06)

**WAC 296-62-08007 Permissible exposure limit (PEL).** Permissible exposure limit (PEL). The employer ((shall)) must ensure that no employee is exposed to an airborne concentration of chromium (VI) in excess of 5 micrograms per cubic meter of air (5 (mu)g/m<sup>3</sup>), calculated as an 8-hour time-weighted average (TWA).

AMENDATORY SECTION (Amending WSR 10-24-119, filed 12/1/10, effective 1/1/11)

**WAC 296-62-08009 Exposure determination.** (1) General. Each employer who has a workplace or work operation covered by this section ((shall)) must determine the 8-hour TWA exposure for each employee exposed to chromium (VI). This determination ((shall)) must be made in accordance with either subsection (2) or (3) of this section.

(2) Scheduled monitoring option.

(a) The employer ((shall)) must perform initial monitoring to determine the 8-hour TWA exposure for each employee on the basis of a sufficient number of personal breathing zone air samples to accurately characterize full shift exposure on each shift, for each job classification, in each work area. Where an employer does representative sampling instead of sampling all employees in order to meet this requirement, the employer ((shall)) must sample the employee(s) expected to have the highest chromium (VI) exposures.

(b) If initial monitoring indicates that employee exposures are below the action level, the employer may discontinue monitoring for those employees whose exposures are represented by such monitoring.

(c) If monitoring reveals employee exposures to be at or above the action level, the employer ((shall)) must perform periodic monitoring at least every six months.

(d) If monitoring reveals employee exposures to be above the PEL, the employer ((shall)) must perform periodic monitoring at least every three months.

(e) If periodic monitoring indicates that employee exposures are below the action level, and the result is confirmed by the result of another monitoring taken at least seven days later, the employer may discontinue the monitoring for those employees whose exposures are represented by such monitoring.

(f) The employer ((shall)) must perform additional monitoring when there has been any change in the production pro-

cess, raw materials, equipment, personnel, work practices, or control methods that may result in new or additional exposures to chromium (VI), or when the employer has any reason to believe that new or additional exposures have occurred.

(3) Performance-oriented option. The employer ~~((shall))~~ must determine the 8-hour TWA exposure for each employee on the basis of any combination of air monitoring data, historical monitoring data, or objective data sufficient to accurately characterize employee exposure to chromium (VI).

(4) Employee notification of determination results.

(a) In general industry within five work days after making an exposure determination in accordance with subsection (2) or (3) of this section, the employer ~~((shall))~~ must individually notify each affected employee in writing of the results of that determination or post the results in an appropriate location accessible to all affected employees.

(b) In construction and shipyards, marine terminals, and longshoring within five work days after making an exposure determination in accordance with subsection (2) or (3) of this section, the employer ~~((shall))~~ must individually notify each affected employee in writing of the results of that determination or post the results in an appropriate location accessible to all affected employees.

(c) Whenever the exposure determination indicates that employee exposure is above the PEL, the employer ~~((shall))~~ must describe in the written notification the corrective action being taken to reduce employee exposure to or below the PEL.

(5) Accuracy of measurement. Where air monitoring is performed to comply with the requirements of this section, the employer ~~((shall))~~ must use a method of monitoring and analysis that can measure chromium (VI) to within an accuracy of plus or minus twenty-five percent and can produce accurate measurements to within a statistical confidence level of ninety-five percent for airborne concentrations at or above the action level.

(6) Observation of monitoring.

(a) Where air monitoring is performed to comply with the requirements of this section, the employer ~~((shall))~~ must provide affected employees or their designated representatives an opportunity to observe any monitoring of employee exposure to chromium (VI).

(b) When observation of monitoring requires entry into an area where the use of protective clothing or equipment is required, the employer ~~((shall))~~ must provide the observer with clothing and equipment and ~~((shall assure))~~ must ensure that the observer uses such clothing and equipment and complies with all other applicable safety and health procedures.

**AMENDATORY SECTION** (Amending WSR 06-16-106, filed 8/1/06, effective 9/1/06)

**WAC 296-62-08011 Regulated areas.**

**Exemption:** This section does not apply to construction, shipyards, marine terminals or longshoring.

(1) Establishment. The employer ~~((shall))~~ must establish a regulated area wherever an employee's exposure to airborne concentrations of chromium (VI) is, or can reasonably be expected to be, in excess of the PEL.

(2) Demarcation. The employer ~~((shall))~~ must ensure that regulated areas are demarcated from the rest of the workplace in a manner that adequately establishes and alerts employees of the boundaries of the regulated area.

(3) Access. The employer ~~((shall))~~ must limit access to regulated areas to:

(a) Persons authorized by the employer and required by work duties to be present in the regulated area;

(b) Any person entering such an area as a designated representative of employees for the purpose of exercising the right to observe monitoring procedures under WAC 296-62-08009;

(c) Any person authorized by the Washington Industrial Safety and Health Act (WISHA) or regulations issued under it to be in a regulated area.

**AMENDATORY SECTION** (Amending WSR 06-16-106, filed 8/1/06, effective 9/1/06)

**WAC 296-62-08013 Methods of compliance.** (1) Engineering and work practice controls.

(a) Except as permitted in (c) of this subsection, the employer ~~((shall))~~ must use engineering and work practice controls to reduce and maintain employee exposure to chromium (VI) to or below the PEL unless the employer can demonstrate that such controls are not feasible. Wherever feasible engineering and work practice controls are not sufficient to reduce employee exposure to or below the PEL, the employer ~~((shall))~~ must use them to reduce employee exposure to the lowest levels achievable, and ~~((shall))~~ must supplement them by the use of respiratory protection that complies with the requirements of WAC 296-62-08015.

**Exemption:** This (b) does not apply to construction, shipyards, marine terminals and longshoring.

(b) Where painting of aircraft or large aircraft parts is performed in the aerospace industry, the employer ~~((shall))~~ must use engineering and work practice controls to reduce and maintain employee exposure to chromium (VI) to or below 25 (mu)g/m<sup>3</sup> unless the employer can demonstrate that such controls are not feasible. The employer ~~((shall))~~ must supplement such engineering and work practice controls with the use of respiratory protection that complies with the requirements of WAC 296-62-08015 to achieve the PEL.

(c) Where the employer can demonstrate that a process or task does not result in any employee exposure to chromium (VI) above the PEL for thirty or more days per year (twelve consecutive months), the requirement to implement engineering and work practice controls to achieve the PEL does not apply to that process or task.

(2) Prohibition of rotation. The employer ~~((shall))~~ must not rotate employees to different jobs to achieve compliance with the PEL.

**AMENDATORY SECTION** (Amending WSR 09-15-145, filed 7/21/09, effective 9/1/09)

**WAC 296-62-08015 Respiratory protection.** (1) General. Where respiratory protection is required by this section, the employer must provide each employee an appropriate res-

pirator that complies with the requirements of this chapter. Respiratory protection is required during:

(a) Periods necessary to install or implement feasible engineering and work practice controls;

(b) Work operations, such as maintenance and repair activities, for which engineering and work practice controls are not feasible;

(c) Work operations for which an employer has implemented all feasible engineering and work practice controls and such controls are not sufficient to reduce exposures to or below the PEL;

(d) Work operations where employees are exposed above the PEL for fewer than thirty days per year, and the employer has elected not to implement engineering and work practice controls to achieve the PEL; or

(e) Emergencies.

(2) Respiratory protection program. Where respirator use is required by this section, the employer ((~~shall~~)) must institute a respiratory protection program in accordance with chapter 296-842 WAC, Respirators, which covers each employee required to use a respirator.

AMENDATORY SECTION (Amending WSR 14-07-086, filed 3/18/14, effective 5/1/14)

**WAC 296-62-08017 Protective work clothing and equipment.** (1) Provision and use. Where a hazard is present or is likely to be present from skin or eye contact with chromium (VI), the employer ((~~shall~~)) must provide appropriate personal protective clothing and equipment at no cost to employees, and ((~~shall~~)) must ensure that employees use such clothing and equipment.

(2) Removal and storage.

(a) The employer ((~~shall~~)) must ensure that employees remove all protective clothing and equipment contaminated with chromium (VI) at the end of the work shift or at the completion of their tasks involving chromium (VI) exposure, whichever comes first.

(b) The employer ((~~shall~~)) must ensure that no employee removes chromium (VI) contaminated protective clothing or equipment from the workplace, except for those employees whose job it is to launder, clean, maintain, or dispose of such clothing or equipment.

(c) When contaminated protective clothing or equipment is removed for laundering, cleaning, maintenance, or disposal, the employer ((~~shall~~)) must ensure that it is stored and transported in sealed, impermeable bags or other closed, impermeable containers.

(d) The employer ((~~shall~~)) must ensure that bags or containers of contaminated protective clothing or equipment that are removed from change rooms for laundering, cleaning, maintenance, or disposal shall be labeled in accordance with the requirements of the hazard communication standard, WAC 296-901-140.

(3) Cleaning and replacement.

(a) The employer ((~~shall~~)) must clean, launder, repair and replace all protective clothing and equipment required by this section as needed to maintain its effectiveness.

(b) The employer ((~~shall~~)) must prohibit the removal of chromium (VI) from protective clothing and equipment by

blowing, shaking, or any other means that disperses chromium (VI) into the air or onto an employee's body.

(c) The employer ((~~shall~~)) must inform any person who launders or cleans protective clothing or equipment contaminated with chromium (VI) of the potentially harmful effects of exposure to chromium (VI) and that the clothing and equipment should be laundered or cleaned in a manner that minimizes skin or eye contact with chromium (VI) and effectively prevents the release of airborne chromium (VI) in excess of the PEL.

AMENDATORY SECTION (Amending WSR 06-16-106, filed 8/1/06, effective 9/1/06)

**WAC 296-62-08019 Hygiene areas and practices.** (1) General.

(a) General industry, shipyards, marine terminals and longshoring. Where protective clothing and equipment is required, the employer ((~~shall~~)) must provide change rooms in conformance with WAC 296-800-230, Sanitation and hygiene facilities and procedures. Where skin contact with chromium (VI) occurs, the employer ((~~shall~~)) must provide washing facilities in conformance with WAC 296-800-230, Sanitation and hygiene facilities and procedures. Eating and drinking areas provided by the employer ((~~shall~~)) must also be in conformance with WAC 296-800-230, Sanitation and hygiene facilities and procedures.

(b) Construction. Where protective clothing and equipment is required, the employer ((~~shall~~)) must provide change rooms in conformance with WAC 296-155-17321, Hygiene facilities and practices. Where skin contact with chromium (VI) occurs, the employer ((~~shall~~)) must provide washing facilities in conformance with WAC 296-155-17321, Hygiene facilities and practices. Eating and drinking areas provided by the employer ((~~shall~~)) must also be in conformance with WAC 296-155-17321, Hygiene facilities and practices.

(2) Change rooms. The employer ((~~shall-assure~~)) must ensure that change rooms are equipped with separate storage facilities for protective clothing and equipment and for street clothes, and that these facilities prevent cross-contamination.

(3) Washing facilities.

(a) The employer ((~~shall~~)) must provide readily accessible washing facilities capable of removing chromium (VI) from the skin, and ((~~shall~~)) must ensure that affected employees use these facilities when necessary.

(b) The employer ((~~shall~~)) must ensure that employees who have skin contact with chromium (VI) wash their hands and faces at the end of the work shift and prior to eating, drinking, smoking, chewing tobacco or gum, applying cosmetics, or using the toilet.

(4) Eating and drinking areas.

(a) Whenever the employer allows employees to consume food or beverages at a worksite where chromium (VI) is present, the employer ((~~shall~~)) must ensure that eating and drinking areas and surfaces are maintained as free as practicable of chromium (VI).

(b) The employer ((~~shall~~)) must ensure that employees do not enter eating and drinking areas with protective work clothing or equipment unless surface chromium (VI) has

been removed from the clothing and equipment by methods that do not disperse chromium (VI) into the air or onto an employee's body.

(5) Prohibited activities. The employer (~~(shall)~~) must ensure that employees do not eat, drink, smoke, chew tobacco or gum, or apply cosmetics in areas where skin or eye contact with chromium (VI) occurs; or carry the products associated with these activities, or store such products in these areas.

**AMENDATORY SECTION** (Amending WSR 14-07-086, filed 3/18/14, effective 5/1/14)

**WAC 296-62-08021 Housekeeping.**

**Exemption:** This section does not apply to construction, shipyards, marine terminals and longshoring.

(1) General. The employer (~~(shall)~~) must ensure that:

(a) All surfaces are maintained as free as practicable of accumulations of chromium (VI).

(b) All spills and releases of chromium (VI) containing material are cleaned up promptly.

(2) Cleaning methods.

(a) The employer (~~(shall)~~) must ensure that surfaces contaminated with chromium (VI) are cleaned by HEPA-filter vacuuming or other methods that minimize the likelihood of exposure to chromium (VI).

(b) Dry shoveling, dry sweeping, and dry brushing may be used only where HEPA-filtered vacuuming or other methods that minimize the likelihood of exposure to chromium (VI) have been tried and found not to be effective.

(c) The employer (~~(shall)~~) must not allow compressed air to be used to remove chromium (VI) from any surface unless:

(i) The compressed air is used in conjunction with a ventilation system designed to capture the dust cloud created by the compressed air; or

(ii) No alternative method is feasible.

(d) The employer (~~(shall)~~) must ensure that cleaning equipment is handled in a manner that minimizes the reentry of chromium (VI) into the workplace.

(3) Disposal. The employer (~~(shall)~~) must ensure that:

(a) Waste, scrap, debris, and any other materials contaminated with chromium (VI) and consigned for disposal are collected and disposed of in sealed, impermeable bags or other closed, impermeable containers.

(b) Bags or containers of waste, scrap, debris, and any other materials contaminated with chromium (VI) that are consigned for disposal are labeled in accordance with the requirements of WAC 296-901-140(~~(g)~~) Hazard communication.

**AMENDATORY SECTION** (Amending WSR 06-16-106, filed 8/1/06, effective 9/1/06)

**WAC 296-62-08023 Medical surveillance.** (1) General.

(a) The employer (~~(shall)~~) must make medical surveillance available at no cost to the employee, and at a reasonable time and place, for all employees:

(i) Who are or may be occupationally exposed to chromium (VI) at or above the action level for thirty or more days a year;

(ii) Experiencing signs or symptoms of the adverse health effects associated with chromium (VI) exposure; or

(iii) Exposed in an emergency.

(b) The employer (~~(shall assure)~~) must ensure that all medical examinations and procedures required by this section are performed by or under the supervision of a PLHCP.

(2) Frequency. The employer shall provide a medical examination:

(a) Within thirty days after initial assignment, unless the employee has received a chromium (VI) related medical examination that meets the requirements of this paragraph within the last twelve months;

(b) Annually;

(c) Within thirty days after a PLHCP's written medical opinion recommends an additional examination;

(d) Whenever an employee shows signs or symptoms of the adverse health effects associated with chromium (VI) exposure;

(e) Within thirty days after exposure during an emergency which results in an uncontrolled release of chromium (VI); or

(f) At the termination of employment, unless the last examination that satisfied the requirements of WAC 296-62-08023, Medical surveillance was less than six months prior to the date of termination.

(3) Contents of examination. A medical examination consists of:

(a) A medical and work history, with emphasis on: Past, present, and anticipated future exposure to chromium (VI); any history of respiratory system dysfunction; any history of asthma, dermatitis, skin ulceration, or nasal septum perforation; and smoking status and history;

(b) A physical examination of the skin and respiratory tract; and

(c) Any additional tests deemed appropriate by the examining PLHCP.

(4) Information provided to the PLHCP. The employer (~~(shall)~~) must ensure that the examining PLHCP has a copy of this standard, and (~~(shall)~~) must provide the following information:

(a) A description of the affected employee's former, current, and anticipated duties as they relate to the employee's occupational exposure to chromium (VI);

(b) The employee's former, current, and anticipated levels of occupational exposure to chromium (VI);

(c) A description of any personal protective equipment used or to be used by the employee, including when and for how long the employee has used that equipment; and

(d) Information from records of employment-related medical examinations previously provided to the affected employee, currently within the control of the employer.

(5) PLHCP's written medical opinion.

(a) The employer (~~(shall)~~) must obtain a written medical opinion from the PLHCP, within thirty days for each medical examination performed on each employee, which contains:

(i) The PLHCP's opinion as to whether the employee has any detected medical condition(s) that would place the employee at increased risk of material impairment to health from further exposure to chromium (VI);

(ii) Any recommended limitations upon the employee's exposure to chromium (VI) or upon the use of personal protective equipment such as respirators;

(iii) A statement that the PLHCP has explained to the employee the results of the medical examination, including any medical conditions related to chromium (VI) exposure that require further evaluation or treatment, and any special provisions for use of protective clothing or equipment.

(b) The PLHCP ~~((shall))~~ **must** not reveal to the employer specific findings or diagnoses unrelated to occupational exposure to chromium (VI).

(c) The employer ~~((shall))~~ **must** provide a copy of the PLHCP's written medical opinion to the examined employee within two weeks after receiving it.

**AMENDATORY SECTION** (Amending WSR 14-07-086, filed 3/18/14, effective 5/1/14)

**WAC 296-62-08025 Communication of chromium (VI) hazards.** (1) Hazard communication - General.

(a) Chemical manufacturers, importers, distributors, and employers ~~((shall))~~ **must** comply with all requirements of the hazard communication standard (HCS), WAC 296-901-140 for chromium (VI).

(b) In classifying the hazards of chromium (VI) at least the following hazards are to be addressed: Cancer, eye irritation, and skin sensitization.

(c) Employers ~~((shall))~~ **must** include chromium (VI) in the hazard communication program established to comply with the HCS, WAC 296-901-140. Employers ~~((shall))~~ **must** ensure that each employee has access to labels on containers of chromium (VI) and to safety data sheets, and is trained in accordance with the requirements of HCS and subsection (2) of this section. The employer ~~((shall))~~ **must** ensure that at least the following hazards are addressed: Cancer, skin sensitization, and eye irritation.

(2) Employee information and training.

(a) The employer ~~((shall))~~ **must** ensure that each employee can demonstrate knowledge of at least the following:

(i) The contents of this section; and  
(ii) The purpose and a description of the medical surveillance program required by (a)(i) of this subsection.

(b) The employer ~~((shall))~~ **must** make a copy of this section readily available without cost to all affected employees.

**AMENDATORY SECTION** (Amending WSR 06-16-106, filed 8/1/06, effective 9/1/06)

**WAC 296-62-08027 Recordkeeping.** (1) Air monitoring data.

(a) The employer ~~((shall))~~ **must** maintain an accurate record of all air monitoring conducted to comply with the requirements of this section.

(b) This record ~~((shall))~~ **must** include at least the following information:

(i) The date of measurement for each sample taken;  
(ii) The operation involving exposure to chromium (VI) that is being monitored;  
(iii) Sampling and analytical methods used and evidence of their accuracy;

(iv) Number, duration, and the results of samples taken;  
(v) Type of personal protective equipment, such as respirators worn; and

(vi) Name, Social Security number, and job classification of all employees represented by the monitoring, indicating which employees were actually monitored.

(c) The employer ~~((shall))~~ **must** ensure that exposure records are maintained and made available in accordance with chapter 296-802 WAC, Employee medical and exposure records.

(2) Historical monitoring data.

(a) Where the employer has relied on historical monitoring data to determine exposure to chromium (VI), the employer ~~((shall))~~ **must** establish and maintain an accurate record of the historical monitoring data relied upon.

(b) The record ~~((shall))~~ **must** include information that reflects the following conditions:

(i) The data were collected using methods that meet the accuracy requirements of WAC 296-62-08009(5);

(ii) The processes and work practices that were in use when the historical monitoring data were obtained are essentially the same as those to be used during the job for which exposure is being determined;

(iii) The characteristics of the chromium (VI) containing material being handled when the historical monitoring data were obtained are the same as those on the job for which exposure is being determined;

(iv) Environmental conditions prevailing when the historical monitoring data were obtained are the same as those on the job for which exposure is being determined; and

(v) Other data relevant to the operations, materials, processing, or employee exposures covered by the exception.

(c) The employer ~~((shall))~~ **must** ensure that historical exposure records are maintained and made available in accordance with chapter 296-802 WAC, Employee medical and exposure records.

(3) Objective data.

(a) The employer ~~((shall))~~ **must** maintain an accurate record of all objective data relied upon to comply with the requirements of this section.

(b) This record ~~((shall))~~ **must** include at least the following information:

(i) The chromium (VI) containing material in question;  
(ii) The source of the objective data;  
(iii) The testing protocol and results of testing, or analysis of the material for the release of chromium (VI);

(iv) A description of the process, operation, or activity and how the data support the determination; and

(v) Other data relevant to the process, operation, activity, material, or employee exposures.

(c) The employer ~~((shall))~~ **must** ensure that objective data are maintained and made available in accordance with chapter 296-802 WAC, Employee medical and exposure records.

(4) Medical surveillance.

(a) The employer ~~((shall))~~ **must** establish and maintain an accurate record for each employee covered by medical surveillance under WAC 296-62-08023, Medical surveillance.

(b) The record ~~((shall))~~ must include the following information about the employee:

- (i) Name and Social Security number;
- (ii) A copy of the PLHCP's written opinions;
- (iii) A copy of the information provided to the PLHCP as required by WAC 296-62-08023(4).

(c) The employer ~~((shall))~~ must ensure that medical records are maintained and made available in accordance with chapter 296-802 WAC, Employee medical and exposure records.

AMENDATORY SECTION (Amending WSR 06-16-106, filed 8/1/06, effective 9/1/06)

**WAC 296-62-08029 Dates.** (1) For employers with twenty or more employees, all obligations of this section, except engineering controls required by WAC 296-62-08013, commence November 27, 2006.

(2) For employers with nineteen or fewer employees, all obligations of this section, except engineering controls required by WAC 296-62-08013, commence May 30, 2007.

(3) For all employers, engineering controls required by WAC 296-62-08013 ~~((shall))~~ must be implemented no later than May 31, 2010.

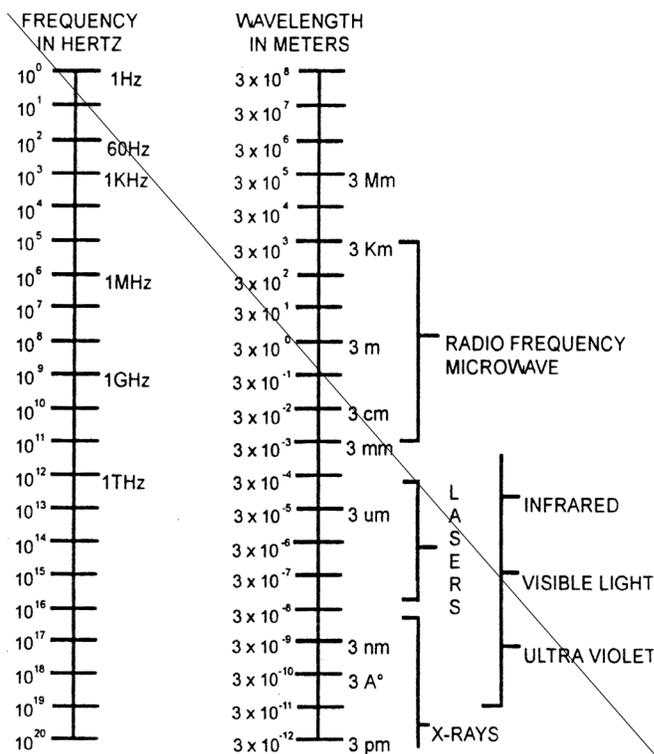
AMENDATORY SECTION (Amending WSR 01-17-033, filed 8/8/01, effective 9/1/01)

**WAC 296-62-09001 Definitions.** ~~((1))~~ "Physical agents" shall mean, but are not limited to: Illumination, ionizing radiation, nonionizing radiation, pressure, vibration, temperature and humidity, and noise.

~~(2)~~ "Nonionizing radiation" as related to industrial sources, means electromagnetic radiation within the spectral range of approximately 200 nanometers to 3 kilometers including ultraviolet, visible, infrared and radiofrequency/microwave radiation. The electromagnetic spectrum is shown graphically in Figure 1 below.

ELECTROMAGNETIC SPECTRUM

Figure 1



~~(3)~~ Pressure is a barometric force. Positive pressure would be that above 14.7 lbs. per square inch absolute and negative pressure would be that below 14.7 lbs. per square inch absolute. 14.7 lbs. per square inch equals 760 mm. mercury.

~~(4)~~ "Vibration" means rapid movement to and fro or oscillating movement.

~~(5)~~ "Noise" means unwanted sound or loud discordant or disagreeable sound or sounds.

~~(6)~~ "Temperature" means the degree of hotness or coldness measured by use of a thermometer.

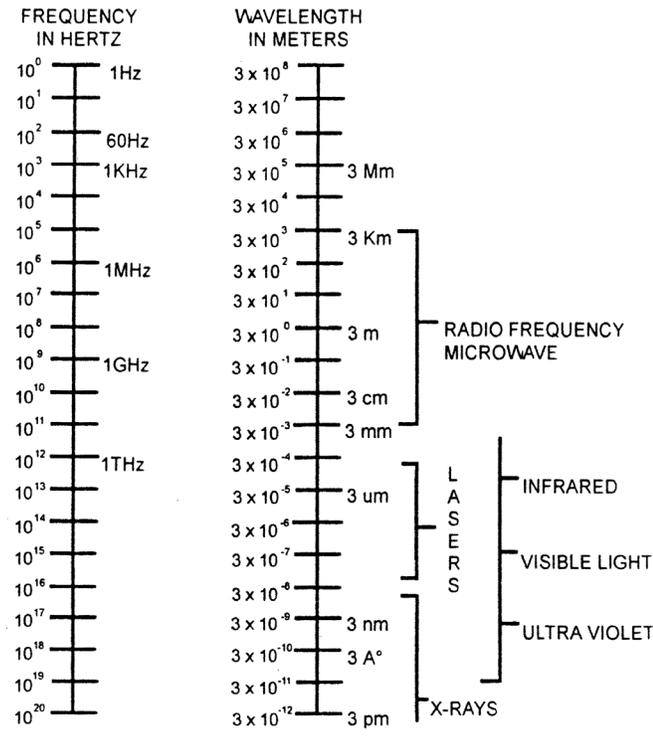
~~(7)~~ "Radiant heat" means infrared radiation emitted from hot surfaces.

~~(8)~~ "Relative humidity" means the percent of moisture in the air compared to the maximum amount of moisture the air could contain at the same temperature.)) **Noise.** Unwanted sound or loud discordant or disagreeable sound or sounds.

**Nonionizing radiation.** As related to industrial sources, means electromagnetic radiation within the spectral range of approximately 200 nanometers to 3 kilometers including ultraviolet, visible, infrared and radiofrequency/microwave radiation. The electromagnetic spectrum is shown graphically in Figure 1 below.

ELECTROMAGNETIC SPECTRUM

Figure 1



**Physical agents.** Must mean, but are not limited to: illumination, ionizing radiation, nonionizing radiation, pressure, vibration, temperature and humidity, and noise.

**Pressure** is a barometric force. Positive pressure would be that above 14.7 lbs. per square inch absolute and negative pressure would be that below 14.7 lbs. per square inch absolute. 14.7 lbs. per square inch equals 760 mm. mercury.

**Radiant heat.** Infrared radiation emitted from hot surfaces.

**Relative humidity.** The percent of moisture in the air compared to the maximum amount of moisture the air could contain at the same temperature.

**Temperature.** The degree of hotness or coldness measured by use of a thermometer.

**Vibration.** Rapid movement to and fro or oscillating movement.

AMENDATORY SECTION (Amending WSR 85-01-022, filed 12/11/84)

**WAC 296-62-09004 Ionizing radiation.** (1) Definitions applicable to this section.

Note: Definitions also appear in some subsections.

(a) (~~"(1)"~~)**Radiation**(~~"(1)"~~). Includes alpha rays, beta rays, gamma rays, X-rays, neutrons, high-speed electrons, high-speed protons, and other atomic particles; but such term does not include sound or radio waves, or visible light, or infrared or ultraviolet light.

(b) (~~"(1)"~~)**Radioactive material**(~~"(1)"~~) **Radioactive material.** Any material which emits, by spontaneous nuclear disintegration, corpuscular or electromagnetic emanations.

(c) (~~"(1)"~~)**Restricted area**(~~"(1)"~~) **Restricted area.** Any area access to which is controlled by the employer for purposes of protection of individuals from exposure to radiation or radioactive materials.

(d) (~~"(1)"~~)**Unrestricted area**(~~"(1)"~~) **Unrestricted area.** Any area access to which is not controlled by the employer for purposes of protection of individuals from exposure to radiation or radioactive materials.

(e) (~~"(1)"~~)**Dose**(~~"(1)"~~) **Dose.** The quantity of ionizing radiation absorbed, per unit of mass, by the body or by any portion of the body. When the provisions in this section specify a dose during a period of time, the dose is the total quantity of radiation absorbed, per unit of mass, by the body or by any portion of the body during such period of time. Several different units of dose are in current use. Definitions of units used in this section are set forth in subdivisions (f) and (g) of this subsection.

(f) (~~"(1)"~~)**Rad**(~~"(1)"~~) **Rad.** A measure of the dose of any ionizing radiation to body tissues in terms of the energy absorbed per unit of mass of the tissue. One rad is the dose corresponding to the absorption of 100 ergs per gram of tissue (1 millirad (mrad) = 0.001 rad).

(g) (~~"(1)"~~)**Rem**(~~"(1)"~~) **Rem.** A measure of the dose of any ionizing radiation to body tissue in terms of its estimated biological effect relative to a dose of 1 roentgen (r) of X-rays (1 millirem (mrem) = 0.001 rem). The relation of the rem to other dose units depends upon the biological effect under consideration and upon the conditions for irradiation. Each of the following is considered to be equivalent to a dose of 1 rem:

- (i) A dose of 1 roentgen due to x- or gamma radiation;
- (ii) A dose of 1 rad due to x-, gamma, or beta radiation;
- (iii) A dose of 0.1 rad due to neutrons or high energy protons;
- (iv) A dose of 0.05 rad due to particles heavier than protons and with sufficient energy to reach the lens of the eye;
- (v) If it is more convenient to measure the neutron flux, or equivalent, than to determine the neutron dose in rads, as provided in item (iii) of this subdivision, 1 rem of neutron radiation may, for purposes of the provisions in this section be assumed to be equivalent to 14 million neutrons per square centimeter incident upon the body; or, if there is sufficient information to estimate with reasonable accuracy the approximate distribution in energy of the neutrons, the incident number of neutrons per square centimeter equivalent to 1 rem may be estimated from the following table:

Neutron Flux Dose Equivalents		
	Number of neutrons per square centimeter equivalent to a dose of 1 rem (neutrons/cm <sup>2</sup> )	Average flux to deliver 100 millirem in 40 hours (neutrons/cm <sup>2</sup> per sec.)
Neutron energy (million electron volts (Mev))		
Thermal . . . . .	970 X 10 <sup>6</sup>	670
0.0001 . . . . .	720 X 10 <sup>6</sup>	500

Neutron Flux Dose Equivalents

Neutron energy (million electron volts (Mev))	Number of neutrons per square centimeter equivalent to a dose of 1 rem (neutrons/cm <sup>2</sup> )	Average flux to deliver 100 millirem in 40 hours (neutrons/cm <sup>2</sup> per sec.)
0.005.....	820 X 10 <sup>6</sup>	570
0.02.....	400 X 10 <sup>6</sup>	280
0.1.....	120 X 10 <sup>6</sup>	80
0.5.....	43 X 10 <sup>6</sup>	30
1.0.....	26 X 10 <sup>6</sup>	18
2.5.....	29 X 10 <sup>6</sup>	20
5.0.....	26 X 10 <sup>6</sup>	18
7.5.....	24 X 10 <sup>6</sup>	17
10.....	24 X 10 <sup>6</sup>	17
10 to 30.....	14 X 10 <sup>6</sup>	10

(h) For determining exposures to X- or gamma rays up to 3 Mev., the dose limits specified in this section may be assumed to be equivalent to the "air dose." For the purpose of this section "air dose" means that the dose is measured by a properly calibrated appropriate instrument in air at or near the body surface in the region of the highest dosage rate.

(i) (~~"Curie" means~~) **Curie.** A unit of measurement of radioactivity. One curie (Ci) is that quantity of radioactive material which decays at the rate of 2.2 x 10<sup>12</sup> disintegrations per minute (dpm).

- (i) One millicurie (mCi) = 10<sup>-3</sup>Ci
- (ii) One microcurie (uCi) = 10<sup>-6</sup>Ci
- (iii) One nanocurie (nCi) = 10<sup>-9</sup>Ci
- (iv) One picocurie (pCi) = 10<sup>-12</sup>Ci

(2) Nuclear Regulatory Commission licensees—NRC contractors operating NRC plants and facilities.

(a) Any employer who possesses or uses source material, byproduct material, or special nuclear material, as defined in the Atomic Energy Act of 1954, as amended, under a license issued by the Nuclear Regulatory Commission and in accordance with the requirements of chapter 402-24 WAC shall be deemed to be in compliance with the requirements of this section with respect to such possession and use.

(b) NRC contractors operating NRC plants and facilities: Any employer who possesses or uses source material, byproduct material, special nuclear material, or other radiation sources under a contract with the Nuclear Regulatory Commission for the operation of NRC plants and facilities and in accordance with the standards, procedures, and other requirements for radiation protection established by the commission for such contract pursuant to the Atomic Energy Act of 1954 as amended (42 U.S.C. 2011 et seq.) shall be deemed to be in compliance with the requirements of this section with respect to such possession and use.

(c) State licensees or registrants:

(i) Atomic Energy Act sources. Any employer who possesses or uses source material, byproduct material, or special nuclear material, as defined in the Atomic Energy Act of

1954, as amended (42 U.S.C. 2011 et seq.), and has registered such sources with the state (~~shall~~) **must** be deemed to be in compliance with the radiation requirements of this section, insofar as his possession and use of such material is concerned.

(ii) Other sources. Any employer who possesses or uses radiation sources other than source material, byproduct material, or special nuclear material, as defined in the Atomic Energy Act of 1954, as amended (42 U.S.C. 2011 et seq.), and has registered such sources with the state (~~shall~~) **must** be deemed to be in compliance with the radiation requirements of this section insofar as his possession and use of such material is concerned.

(3) Exposure of individuals to radiation in restricted areas.

(a) Except as provided in subdivision (b) of this subsection, no employer shall possess, use, or transfer sources of ionizing radiation in such a manner as to cause any individual in a restricted area to receive in any period of one calendar quarter from sources in the employer's possession or control a dose in excess of the limits specified in the following table:

	<b>Rems per Calendar Quarter</b>
<b>EXPOSURE IN RESTRICTED AREAS</b>	
Whole body: Head and trunk; active blood-forming organs; lens of eyes; or gonads.....	1 1/4
Hand and forearms; feet and ankles.....	18 3/4
Skin of whole body.....	7 1/2

(b) An employer may permit an individual in a restricted area to receive doses to the whole body greater than those permitted under subdivision (a) of this subsection, so long as:

(i) During any calendar quarter the dose to the whole body shall not exceed 3 rems; and

(ii) The dose to the whole body, when added to the accumulated occupational dose to the whole body, shall not exceed 5 (N-18) rems, where "N" equals the individual's age in years at his last birthday; and

(iii) The employer maintains adequate past and current exposure records which show that the addition of such a dose will not cause the individual to exceed the amount authorized in this subdivision. As used in this subdivision "Dose to the whole body" (~~shall~~) **must** be deemed to include any dose to the whole body, gonad, active blood-forming organs, head and trunk, or lens of the eye.

(c) No employer (~~shall~~) **must** permit any employee who is under eighteen years of age to receive in any period of one calendar quarter a dose in excess of ten percent of the limits specified in the preceding table entitled "exposure in restricted areas."

(d) (~~"Calendar quarter" means~~) **Calendar quarter.** Any three-month period determined as follows:

(i) The first period of any year may begin on any date in January: Provided, That the second, third and fourth periods accordingly begin on the same date in April, July, and October, respectively, and that the fourth period extends into January of the succeeding year, if necessary to complete a three-month quarter. During the first year of use of this method of

determination, the first period for that year ~~((shall))~~ must also include any additional days in January preceding the starting date for the first period; or

(ii) The first period in a calendar year of thirteen complete, consecutive calendar weeks; the second period in a calendar year of thirteen complete consecutive weeks; the third period in a calendar year of thirteen complete, consecutive calendar weeks; the fourth period in a calendar year of thirteen complete, consecutive calendar weeks. If at the end of a calendar year there are any days not falling within a complete calendar week of that year, such days ~~((shall))~~ must be included within the last complete calendar week of that year. If at the beginning of any calendar year there are days not falling within a complete calendar week of that year, such days shall be included within the last complete calendar week of the previous year; or

(iii) The four periods in a calendar year may consist of the first 14 complete, consecutive calendar weeks; the next twelve complete, consecutive calendar weeks, the next fourteen complete, consecutive calendar weeks, and the last twelve complete, consecutive calendar weeks. If at the end of a calendar year there are any days not falling within a complete calendar week of that year, such days ~~((shall))~~ must be included (for purposes of this section) within the last complete calendar week of the year. If at the beginning of any calendar year there are days not falling within a complete calendar week of that year, such days ~~((shall))~~ must be included (for purposes of this section) within the last complete week of the previous year.

(e) No employer ~~((shall))~~ must change the method used by him to determine calendar quarters except at the beginning of a calendar year.

(4) Exposure to airborne radioactive material.

(a) No employer ~~((shall))~~ must possess, use or transport radioactive material in such a manner as to cause any employee, within a restricted area, to be exposed to airborne radioactive material in an average concentration in excess of the limits specified in Table I of WAC 402-24-220, Appendix A. The limits given in Table I are for exposure to the concentrations specified for forty hours in any workweek of seven consecutive days. In any such period where the number of hours of exposure is less than 40 the limits specified in the table may be increased proportionately. In any such period where the number of hours of exposure is greater than forty, the limits specified in the table shall be decreased proportionately.

(b) No employer shall possess, use, or transfer radioactive material in such a manner as to cause any individual within a restricted area, who is under eighteen years of age, to be exposed to airborne radioactive material in an average concentration in excess of the limits specified in Table II of WAC 402-24-220, Appendix A.

For purposes of this subdivision, concentrations may be averaged over periods not greater than 1 week.

(c) "Exposed" as used in this subdivision means that the individual is present in an airborne concentration. No allowance shall be made for the use of protective clothing or equipment, or particle size.

(5) Precautionary procedures and personal monitoring.

(a) Every employer ~~((shall))~~ must make such surveys as may be necessary for him to comply with the provisions in this section. "Survey" means an evaluation of the radiation hazards incident to the production, use, release, disposal, or presence of radioactive materials or other sources of radiation under a specific set of conditions. When appropriate, such evaluation includes a physical survey of the location of materials and equipment, and measurements of levels of radiation or concentrations of radioactive material present.

(b) Every employer ~~((shall))~~ must supply appropriate personnel monitoring equipment, such as film badges, pocket chambers, pocket dosimeters, or film rings, to, and ~~((shall))~~ must require the use of such equipment by:

(i) Each employee who enters a restricted area under such circumstances that he receives, or is likely to receive, a dose in any calendar quarter in excess of twenty-five percent of the applicable value specified in subsection (3)(a) of this section; and

(ii) Each employee under eighteen years of age who enters a restricted area under such circumstances that he receives, or is likely to receive a dose in any calendar quarter in excess of five percent of the applicable value specified in subsection (3)(a) of this section; and

(iii) Each employee who enters a high radiation area.

(c) As used in this section:

(i) (~~("Personnel monitoring equipment" means)~~) **Personnel monitoring equipment.** Devices designed to be worn or carried by an individual for the purpose of measuring the dose received (e.g., film badges, pocket chambers, pocket dosimeters, film rings, etc.);

(ii) (~~("Radiation area" means)~~) **Radiation area.** Any area, accessible to personnel, in which there exists radiation at such levels that a major portion of the body could receive in any 1 hour a dose in excess of 5 millirem, or in any five consecutive days a dose in excess of 100 millirem; and

(iii) (~~("High radiation area" means)~~) **High radiation area.** Any area, accessible to personnel, in which there exists radiation at such levels that a major portion of the body could receive in any one hour a dose in excess of 100 millirem.

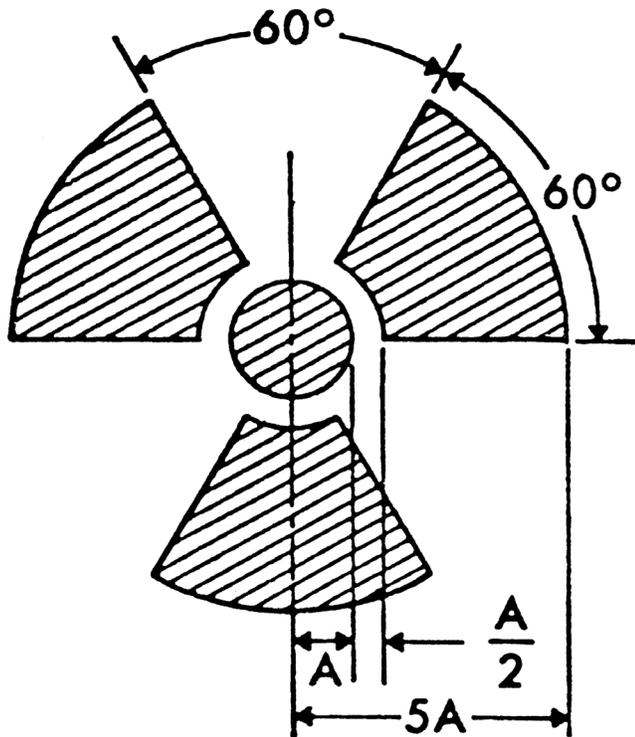
(6) Caution signs, labels and signals.

(a) General.

(i) Symbols prescribed by this subsection ~~((shall))~~ must use the conventional radiation caution colors (magenta or purple on yellow background). The symbol prescribed by this subsection is the conventional three-bladed design:

RADIATION SYMBOL

1. Cross-hatched area is to be magenta or purple.
2. Background is to be yellow.



(ii) In addition to the contents of signs and labels prescribed in this subsection, employers may provide on or near such signs and labels any additional information which may be appropriate in aiding individuals to minimize exposure to radiation or to radioactive material.

(b) Radiation area. Each radiation area ((~~shall~~)) must be conspicuously posted with a sign or signs bearing the radiation caution symbol described in subdivision (a) of this subsection and the words:

CAUTION  
RADIATION AREA

(c) High radiation area.

(i) Each high radiation area ((~~shall~~)) must be conspicuously posted with a sign or signs bearing the radiation caution symbol and the words:

CAUTION  
HIGH RADIATION AREA

(ii) Each high radiation area ((~~shall~~)) must be equipped with a control device which ((~~shall~~)) must either cause the level of radiation to be reduced below that at which an individual might receive a dose of 100 millirems in one hour upon entry into the area or ((~~shall~~)) must energize a conspicuous visible or audible alarm signal in such a manner that the individual entering and the employer or a supervisor of the activity are made aware of the entry. In the case of a high radiation area established for a period of thirty days or less, such control device is not required.

(d) Airborne radioactivity area.

(i) As used in the provisions of this section, "airborne radioactivity area" means:

(A) Any room, enclosure, or operating area in which airborne radioactive materials, composed wholly or partly of radioactive material, exist in concentrations in excess of the amounts specified in column 1 of Table I of WAC 402-24-220, Appendix A.

(B) Any room, enclosure, or operating area in which airborne radioactive materials exist in concentrations which, averaged over the number of hours in any week during which individuals are in the area, exceed twenty-five percent of the amounts specified in column 1 of Table I of WAC 402-24-220, Appendix A.

(ii) Each airborne radioactivity area ((~~shall~~)) must be conspicuously posted with a sign or signs bearing the radiation caution symbol described in subdivision (a) of this subsection and the words:

CAUTION  
AIRBORNE RADIOACTIVITY AREA

(e) Additional requirements.

(i) Each area or room in which radioactive material is used or stored and which contains any radioactive material (other than natural uranium or thorium) in any amount exceeding ten times the quantity of such material specified in WAC 402-24-230, Appendix B ((~~shall~~)) must be conspicuously posted with a sign or signs bearing the radiation caution symbol described in subdivision (a) of this subsection and the words:

CAUTION  
RADIOACTIVE MATERIALS

(ii) Each area or room in which natural uranium or thorium is used or stored in an amount exceeding one hundred times the quantity of such material specified in chapter 402-24 WAC ((~~shall~~)) must be conspicuously posted with a sign or signs bearing the radiation caution symbol described in subdivision (a) of this subsection and the words:

CAUTION  
RADIOACTIVE MATERIALS

(f) Containers.

(i) Each container in which is transported, stored, or used a quantity of any radioactive material (other than natural uranium or thorium) greater than the quantity of such material specified in WAC 402-24-230, Appendix B ((~~shall~~)) must bear a durable, clearly visible label bearing the radiation caution symbol described in subdivision (a) of this subsection and the words:

CAUTION  
RADIOACTIVE MATERIALS

(ii) Each container in which natural uranium or thorium is transported, stored, or used in a quantity greater than ten times the quantity specified in WAC 402-24-230, Appendix B ((~~shall~~)) must bear a durable, clearly visible label bearing the radiation caution symbol described in subdivision (a) of this subsection and the words:

CAUTION  
RADIOACTIVE MATERIALS

(iii) Notwithstanding the provisions of items (i) and (ii) of this subdivision a label shall not be required:

(A) If the concentration of the material in the container does not exceed that specified in column 2 of Table I of WAC 402-24-220, Appendix A.

(B) For laboratory containers, such as beakers, flasks, and test tubes, used transiently in laboratory procedures, when the user is present.

(iv) Where containers are used for storage, the labels required in this subdivision ~~((shall))~~ must state also the quantities and kinds of radioactive materials in the containers and the date of measurement of the quantities.

(7) Immediate evacuation warning signal.

(a) Signal characteristics.

(i) The signal ~~((shall))~~ must be a midfrequency complex sound wave amplitude modulated at a subsonic frequency. The complex sound wave in free space ~~((shall))~~ must have a fundamental frequency  $f_1$  between 450 and 500 hertz (Hz) modulated at a subsonic rate between 4 and 5 hertz.

(ii) The signal generator ~~((shall))~~ must not be less than 75 decibels at every location where an individual may be present whose immediate, rapid, and complete evacuation is essential.

(iii) A sufficient number of signal units ~~((shall))~~ must be installed such that the requirements of item (i) of this subdivision are met at every location where an individual may be present whose immediate, rapid, and complete evacuation is essential.

(iv) The signal ~~((shall))~~ must be unique in the plant or facility in which it is installed.

(v) The minimum duration of the signal ~~((shall))~~ must be sufficient to insure that all affected persons hear the signal.

(vi) The signal-generating system ~~((shall))~~ must respond automatically to an initiating event without requiring any human action to sound the signal.

(b) Design objectives.

(i) The signal-generating system ~~((shall))~~ must be designed to incorporate components which enable the system to produce the desired signal each time it is activated within one-half second of activation.

(ii) The signal-generating system ~~((shall))~~ must be provided with an automatically activated secondary power supply which is adequate to simultaneously power all emergency equipment to which it is connected, if operation during power failure is necessary, except in those systems using batteries as the primary source of power.

(iii) All components of the signal-generating system ~~((shall))~~ must be located to provide maximum practicable protection against damage in case of fire, explosion, corrosive atmosphere, or other environmental extremes consistent with adequate system performance.

(iv) The signal-generating system ~~((shall))~~ must be designed with the minimum number of components necessary to make it function as intended, and should utilize components which do not require frequent servicing such as lubrication or cleaning.

(v) Where several activating devices feed activating information to a central signal generator, failure of any acti-

vating device ~~((shall))~~ must not render the signal-generator system inoperable to activating information from the remaining devices.

(vi) The signal-generating system ~~((shall))~~ must be designed to enhance the probability that alarm occurs only when immediate evacuation is warranted. The number of false alarms ~~((shall))~~ must not be so great that the signal will come to be disregarded and shall be low enough to minimize personal injuries or excessive property damage that might result from such evacuation.

(c) Testing.

(i) Initial tests, inspections, and checks of the signal-generating system ~~((shall))~~ must be made to verify that the fabrication and installation were made in accordance with design plans and specifications and to develop a thorough knowledge of the performance of the system and all components under normal and hostile conditions.

(ii) Once the system has been placed in service, periodic tests, inspections, and checks ~~((shall))~~ must be made to minimize the possibility of malfunction.

(iii) Following significant alterations or revisions to the system, tests and checks similar to the initial installation tests ~~((shall))~~ must be made.

(iv) Tests ~~((shall))~~ must be designed to minimize hazards while conducting the tests.

(v) Prior to normal operation the signal-generating system shall be checked physically and functionally to ~~((assure))~~ ensure reliability and to demonstrate accuracy and performance. Specific tests ~~((shall))~~ must include:

(A) All power sources.

(B) Calibration and calibration stability.

(C) Trip levels and stability.

(D) Continuity of function with loss and return of required services such as AC or DC power, air pressure, etc.

(E) All indicators.

(F) Trouble indicator circuits and signals, where used.

(G) Air pressure (if used).

(H) Determine that sound level of the signal is within the limit of item (a)(ii) of this subsection at all points that require immediate evacuation.

(vi) In addition to the initial startup and operating tests, periodic scheduled performance tests and status checks must be made to ~~((insure))~~ ensure that the system is at all times operating within design limits and capable of the required response. Specific periodic tests or checks or both ~~((shall))~~ must include:

(A) Adequacy of signal activation device.

(B) All power sources.

(C) Function of all alarm circuits and trouble indicator circuits including trip levels.

(D) Air pressure (if used).

(E) Function of entire system including operation without power where required.

(F) Complete operational tests including sounding of the signal and determination that sound levels are adequate.

(vii) Periodic tests ~~((shall))~~ must be scheduled on the basis of need, experience, difficulty, and disruption of operations. The entire system should be operationally tested at least quarterly.

(viii) All employees whose work may necessitate their presence in an area covered by the signal shall be made familiar with the actual sound of the signal—preferably as it sounds at their work location. Before placing the system into operation, all employees normally working in the area ~~((shall))~~ must be made acquainted with the signal by actual demonstration at their work locations.

(8) Exceptions from posting requirements. Notwithstanding the provisions of subsection (6) of this section:

(a) A room or area is not required to be posted with a caution sign because of the presence of a sealed source, provided the radiation level twelve inches from the surface of the source container or housing does not exceed 5 millirem per hour.

(b) Rooms or other areas in onsite medical facilities are not required to be posted with caution signs because of the presence of patients containing radioactive material, provided that there are personnel in attendance who ~~((shall))~~ must take the precautions necessary to prevent the exposure of any individual to radiation or radioactive material in excess of the limits established in the provisions of this section.

(c) Caution signs are not required to be posted at areas or rooms containing radioactive materials for periods of less than 8 hours: Provided, that

(i) The materials are constantly attended during such periods by an individual who ~~((shall))~~ must take the precautions necessary to prevent the exposure of any individual to radiation or radioactive materials in excess of the limits established in the provisions of this section; and

(ii) Such area or room is subject to the employer's control.

(9) Exemptions for radioactive materials packaged for shipment. Radioactive materials packaged and labeled in accordance with regulations of the Department of Transportation published in 49 C.F.R. Chapter I, are exempt from the labeling and posting requirements of this section during shipment, provided that the inside containers are labeled in accordance with the provisions of subsection (6) of this section.

(10) Instruction of personnel, posting.

(a) Employers regulated by the Nuclear Regulatory Commission shall be governed by 10 C.F.R. Part 20 standards. Employers conducting business in Washington state ~~((shall))~~ must be governed by the requirements of the laws and regulations of the state. All other employers ~~((shall))~~ must be regulated by the following:

(b) All individuals working in or frequenting any portion of a radiation area ~~((shall))~~ must be informed of the occurrence of radioactive materials or of radiation in such portions of the radiation area; ~~((shall))~~ must be instructed in the safety problems associated with exposure to such materials or radiation and in precautions or devices to minimize exposure; ~~((shall))~~ must be instructed in the applicable provisions of this section for the protection of employees from exposure to radiation or radioactive materials; and ~~((shall))~~ must be advised of reports of radiation exposure which employees may request pursuant to the regulations in this section.

(c) Each employer to whom this section applies ~~((shall))~~ must post a current copy of its provisions and a copy of the operating procedures applicable to the work conspicuously in

such locations as to ~~((insure))~~ ensure that employees working in or frequenting radiation areas will observe these documents on the way to and from their place of employment, or ~~((shall))~~ must keep such documents available for examination of employees upon request.

(11) Storage of radioactive materials. Radioactive materials stored in a nonradiation area ~~((shall))~~ must be secured against unauthorized removal from the place of storage.

(12) Waste disposal. No employer ~~((shall))~~ must dispose of radioactive material except as provided for in WAC 402-24-130.

(13) Notification of incidents.

(a) Immediate notification. Each employer ~~((shall))~~ must immediately notify the industrial hygiene section, division of industrial safety and health for employees not protected by the Nuclear Regulatory Commission by means of 10 C.F.R. Part 20; subsection (2)(b) of this section by telephone or telegraph of any incident involving radiation which may have caused or threatens to cause:

(i) Exposure of the whole body of any individual to 25 rems or more of radiation; exposure of the skin of the whole body of any individual to 150 rems or more of radiation; or exposure of the feet, ankles, hands, or forearms of any individual to 375 rems or more of radiation; or

(ii) The release of radioactive material in concentrations which, if averaged over a period of twenty-four hours, would exceed 5,000 times the limit specified for such materials in Table II of WAC 402-24-220, Appendix A.

(iii) A loss of 1 working week or more of the operation of any facilities affected; or

(iv) Damage to property in excess of \$100,000.

(b) Twenty-four hour notification. Each employer ~~((shall))~~ must within twenty-four hours following its occurrence notify the industrial hygiene section, division of industrial safety and health, for employees not protected by the Nuclear Regulatory Commission by means of 10 C.F.R. Part 20; subsection (2)(b) of this section, by telephone or telegraph of any incident involving radiation which may have caused or threatens to cause:

(i) Exposure of the whole body of any individual to 5 rems or more of radiation; exposure of the skin of the whole body of any individual to 30 rems or more of radiation; or exposure of the feet, ankles, hands, or forearms to 75 rems or more of radiation; or

(ii) A loss of one day or more of the operation of any facilities; or

(iii) Damage to property in excess of \$10,000.

(14) Reports of overexposure and excessive levels and concentrations.

(a) In addition to any notification required by subsection (13) of this section each employer ~~((shall))~~ must make a report in writing within thirty days to the industrial hygiene section division of industrial safety and health, for employees not protected by the Nuclear Regulatory Commission by means of 10 C.F.R. Part 20; or under subsection (2)(b) of this section, of each exposure of an individual to radiation or concentrations of radioactive material in excess of any applicable limit in this section. Each report required under this subdivision ~~((shall))~~ must describe the extent of exposure of persons to radiation or to radioactive material; levels of radiation and

concentration of radioactive material involved, the cause of the exposure, levels of concentrations; and corrective steps taken or planned to ((~~assure~~)) ensure against a recurrence.

(b) In any case where an employer is required pursuant to the provisions of this subsection to report to the industrial hygiene section, division of industrial safety and health, any exposure of an individual to radiation or to concentrations of radioactive material, the employer ((~~shall~~)) must also notify such individual of the nature and extent of exposure. Such notice ((~~shall~~)) must be in writing and ((~~shall~~)) must contain the following statement: "You should preserve this report for future reference."

(15) Records.

(a) Every employer ((~~shall~~)) must maintain records of the radiation exposure of all employees for whom personnel monitoring is required under subsection (5) of this section and advise each of his employees of his individual exposure on at least an annual basis.

(b) Every employer ((~~shall~~)) must maintain records in the same units used in tables in subsection (2) of this section and WAC 402-24-220, Appendix A.

(16) Disclosure to former employee of individual employee's record.

(a) At the request of a former employee an employer ((~~shall~~)) must furnish to the employee a report of the employee's exposure to radiation as shown in records maintained by the employer pursuant to subdivision (15)(a) of this section. Such report ((~~shall~~)) must be furnished within thirty days from the time the request is made, and ((~~shall~~)) must cover each calendar quarter of the individual's employment involving exposure to radiation or such lesser period as may be requested by the employee. The report ((~~shall~~)) must also include the results of any calculations and analysis of radioactive material deposited in the body of the employee. The report ((~~shall~~)) must be in writing and contain the following statement: "You should preserve this report for future reference."

(b) The former employee's request should include appropriate identifying data, such as Social Security number and dates and locations of employment.

(17) (Reserved)

(18) Radiation standards for mining.

(a) For the purpose of this subsection, a "working level" is defined as any combination of radon daughters in 1 liter of air which will result in the ultimate emission of  $1.3 \times 10^5$  million electron volts of potential alpha energy. The numerical value of the "working level" is derived from the alpha energy released by the total decay of short-lived radon daughter products in equilibrium with 100 picocuries of radon 222 per liter of air. A working level month is defined as the exposure received by a worker breathing air at one working level concentration for 4-1/3 weeks of forty hours each.

(b) Occupational exposure to radon daughters in mines ((~~shall~~)) must be controlled so that no individual will receive an exposure of more than two working level months in any calendar quarter and no more than four working level months in any calendar year. Actual exposures ((~~shall~~)) must be kept as far below these values as practicable.

(c)(i) For uranium mines, records of environmental concentrations in the occupied parts of the mine, and of the time

spent in each area by each person involved in an underground work ((~~shall~~)) must be established and maintained. These records ((~~shall~~)) must be in sufficient detail to permit calculations of the exposures, in units of working level months, of the individuals and shall be available for inspection by the industrial hygiene section, division of safety and health or their authorized representatives.

(ii) For other than uranium mines and for surface workers in all mines, item (i) of this subdivision will be applicable: Provided, however, That if no environmental sample shows a concentration greater than 0.33 working level in any occupied part of the mine, the maintenance of individual occupancy records and the calculation of individual exposures will not be required.

(d)(i) At the request of an employee (or former employee) a report of the employee's exposure to radiation as shown in records maintained by the employer pursuant to subdivision (c) of this subsection ((~~shall~~)) must be furnished to ((~~him~~)) them. The report ((~~shall~~)) must be in writing and contain the following statement:

"This report is furnished to you under the provisions of the state of Washington, Ionizing Radiation Safety and Health Standards (chapter 296-62 WAC). You should preserve this report for future reference."

(ii) The former employee's request should include appropriate identifying data, such as Social Security number and dates and locations of employment. See tables in WAC 402-24-220, Appendix A and 402-24-230, Appendix B.

**AMENDATORY SECTION** (Amending WSR 92-22-067, filed 10/30/92, effective 12/8/92)

**WAC 296-62-09005 Nonionizing radiation.** (1) Introduction. Employees ((~~shall~~)) must be protected from exposure to hazardous levels of nonionizing radiation. Health standards have been established for ultraviolet, radiofrequency/microwave, and laser radiations which ((~~shall~~)) must be used to promote a healthful working environment. These standards refer to levels of nonionizing radiation and represent conditions under which it is believed that nearly all workers may be repeatedly exposed day after day without adverse effects. They are based on the best available information from experimental studies. Because of the wide variations in individual susceptibility, exposure of an occasional individual at, or even below, the permissible limit, may result in discomfort, aggravation of a preexisting condition, or physiological damage.

(a) Permissible exposure limits (PELs) refer to a time weighted average (TWA) of exposure for an eight-hour work day within a forty-hour workweek. Exceptions are those limits which are given a ceiling value.

(b) These PELs should be interpreted and applied only by technically qualified persons.

(c) Ceiling value. There are nonionizing radiations which produce physiological responses from short intense exposure and the PELs for these radiations are more appropriately based on this particular hazard. Nonionizing radiations with this type of hazard are best controlled by a ceiling value which is a maximum level of exposure which ((~~shall~~)) must not be exceeded.

(2) The employer ((shall)) must establish and maintain a program for the control and monitoring of nonionizing radiation hazards. This program ((shall)) must provide employees adequate supervision, training, facilities, equipment, and supplies, for the control and assessment of nonionizing radiation hazards.

(3) Radiofrequency/microwave radiation permissible exposure limits.

(a) Definition(= "Partial body exposure" means). **Partial body exposure.** The case in which only the hands and forearms or the feet and legs below the knee are exposed.

(b) Warning symbol.

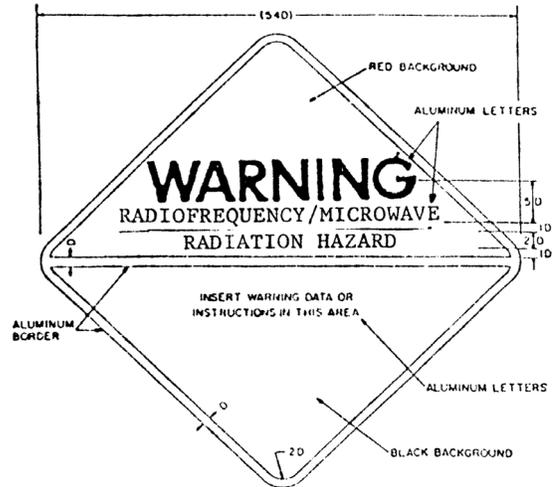
(i) The warning symbol for radiofrequency/microwave radiation ((shall)) must consist of a red isosceles triangle above an inverted black isosceles triangle, separated and outlined by an aluminum color border. The words "Warning - Radiofrequency/microwave radiation hazard" ((shall)) must appear in the upper triangle. See Figure 1.

(ii) All areas where entry may result in an exposure to radiofrequency/microwave radiation in excess of the PEL ((shall)) must have a warning symbol prominently displayed at their entrance.

(iii) American National Standard Safety Color Code for Marking Physical Hazards and the Identification of Certain Equipment, Z53.1-1953, ((shall)) must be used for color specification. All lettering and the border ((shall)) must be of aluminum color.

(iv) The inclusion and choice of warning information or precautionary instructions is at the discretion of the user. If such information is included it ((shall)) must appear in the lower triangle of the warning symbol.

((



1. Place handling and mounting instructions on reverse side.
2. D = Scaling Unit.
3. Lettering: Ratio of letter height to thickness of letter lines.
 

Upper triangle:	5 to 1 Large
	6 to 1 Medium
Lower triangle:	4 to 1 Small
	6 to 1 Medium
4. Symbol is square, triangles are right-angle isosceles.

Figure 1

Radiofrequency/Microwave Radiation Hazard Warning Symbol

((



1. Place handling and mounting instructions on reverse side.
2. D = Scaling Unit.
3. Lettering: Ratio of letter height to thickness of letter lines.
 

Upper triangle:	5 to 1 Large
	6 to 1 Medium
Lower triangle:	4 to 1 Small
	6 to 1 Medium
4. Symbol is square, triangles are right-angle isosceles.

Figure 1

Radiofrequency/Microwave Radiation Hazard Warning Symbol

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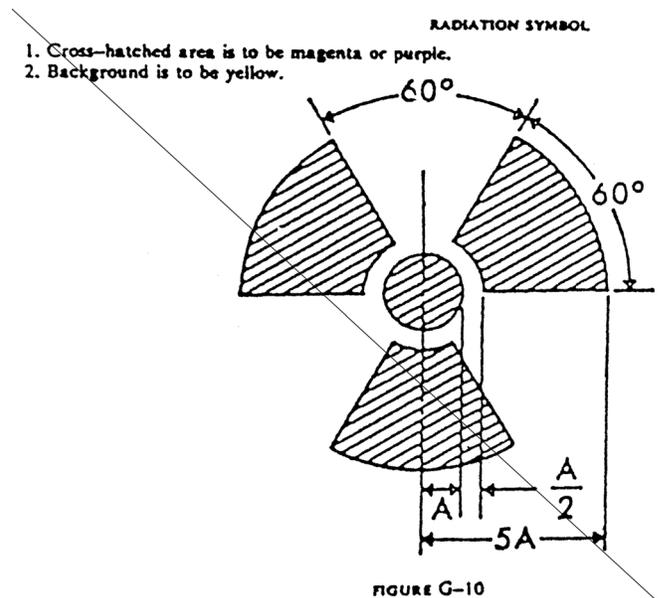
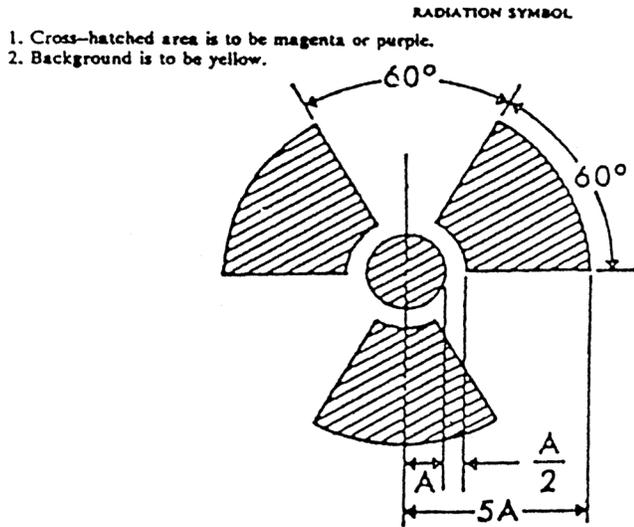


FIGURE G-10

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(c) These PELs refer to radiofrequency/microwave radiation exposures in the frequency range of 300 kHz to 100 GHz. Based on current knowledge, it is believed that workers may be exposed at these PELs without adverse health effects.

(i) Table I gives the PELs in terms of the mean squared electric ( $E^2$ ) and magnetic ( $H^2$ ) field strengths and in terms of the equivalent plane-wave free-space power density, as a function of frequency.

(ii) The average exposure for any six minute (0.1 hour) period ~~((shall))~~ **must** not exceed the PEL.

(iii) Measurements ~~((shall))~~ **must** be made at distances of 5 cm or greater from any object.

(iv) For mixed or broadband fields at a number of frequencies for which there are different PELs, the fraction of the PEL incurred within each frequency interval ~~((shall))~~ **must** be determined and the sum of these fractions ~~((shall))~~ **must** not exceed unity.

(v) PELs given in Table I for frequencies between 300 kHz and 1 GHz may be exceeded for partial body exposures if the output power of the radiating device is 7 watts or less.

Table I. Radiofrequency/Microwave Radiation  
Permissible Exposure Limits (PELs).

Frequency(f)	Power Density*	Electric Field	Magnetic Field
		Strength Squared*	Strength Squared*
	mW/cm <sup>2</sup>	V <sup>2</sup> /m <sup>2</sup>	A <sup>2</sup> /m <sup>2</sup>
0.3 to 3 MHz	100	400,000	2.5
3 to 30 MHz	900/f <sup>2</sup>	4000(900/f <sup>2</sup> )	0.025(900/f <sup>2</sup> )
30 to 300 MHz	1.0	4000	0.025
300 to 1500 MHz	f/300	4000(f/300)	0.025(f/300)
1.5 to 100 GHz	5.0	20,000	0.125

Note: f = frequency (MHz)

\*Ceiling value

(4) Laser radiation permissible exposure limits.

(a) Definitions.

(i) (~~((shall))~~ **Diffuse reflection**) **Diffuse reflection.** A change of the spatial distribution of a beam of radiation when it is reflected in many directions by a surface or medium.

(ii) (~~((shall))~~ **Specular reflection**) **Specular reflection.** A mirrorlike reflection.

(iii) (~~((shall))~~ **Accessible radiation**) **Accessible radiation.** Laser radiation to which human access is possible.

(b) All lasers and laser systems ~~((shall))~~ **must** be classified in accordance with the Federal Laser Product Performance Standards (21 C.F.R. 1040.10) or, if manufactured prior to August 2, 1976, in accordance with ANSI Z136.1-1980.

(i) Class I. Laser systems that are considered to be incapable of producing damaging radiation levels and are thereby exempt from control measures. This is a no hazard category.

(ii) Class II. Visible wavelength laser systems that have a low hazard potential because of the expected aversion response. There is some possibility of injury if stared at. This is a low hazard category.

(iii) Class III. Laser systems in which intrabeam viewing of the direct beam or specular reflections of the beam may be hazardous. This class is further subdivided into IIIa and IIIb. This is a moderate hazard category.

(iv) Class IV. Laser systems whose direct or diffusely reflected radiation may be hazardous and where the beam may constitute a fire hazard. Class IV systems require the use of controls that prevent exposure of the eye and skin to specular or diffuse reflections of the beam. This is a high hazard category.

(c) Warning signs and classification labels ~~((shall))~~ **must** be prepared in accordance with 21 C.F.R. 1040.10 when classifying lasers and laser systems, and ANSI Z136.1 - 1980 when using classified lasers and laser systems. All signs and labels ~~((shall))~~ **must** be conspicuously displayed.

(i) The signal word "CAUTION" ~~((shall))~~ **must** be used with all signs and labels associated with Class II and Class IIIa lasers and laser systems.

(ii) The signal word "DANGER" ~~((shall))~~ **must** be used with all signs and labels associated with Class IIIb and Class IV lasers and laser systems.

(d) Personal protective equipment ~~((shall))~~ **must** be provided at no cost to the employee and ~~((shall))~~ **must** be worn whenever operational conditions or maintenance of lasers may result in a potentially hazardous exposure.

(i) Protective eyewear ~~((shall))~~ **must** be specifically designed for protection against radiation of the wavelength and radiant energy of the laser or laser system. Ocular exposure shall not exceed the recommendations of ANSI Z136.1 - 1980.

(ii) For Class IV lasers and laser systems protective eyewear ~~((shall))~~ **must** be worn for all operational conditions or maintenance which may result in exposures to laser radiation.

(e) Engineering controls ~~((shall))~~ **must** be used whenever feasible to reduce the accessible radiation levels for Class IV lasers and laser systems to a lower classification level. These controls may include, but are not limited to: Protective housings, interlocks, optical system attenuators, enclosed beam

paths, remote controls, beam stops, and emission delays with audible warnings.

(f) All employees who may be exposed to laser radiation shall receive laser safety training. The training ~~((shall))~~ must ensure that the employees are knowledgeable of the potential hazards and control measures for the laser equipment in use.

(5) Ultraviolet radiation.

(a) These permissible exposure limits refer to ultraviolet radiation in the spectral region between 200 and 400 nanometer (nm) and represent conditions under which it is believed that nearly all workers may be repeatedly exposed without adverse effect. These values for exposure of the eye or the skin apply to ultraviolet radiation from arcs, gas, and vapor discharges, and incandescent sources, but do not apply to ultraviolet lasers or solar radiation. These levels should not be used for determining exposure of photosensitive individuals to ultraviolet radiation. These values ~~((shall))~~ must be used in the control of exposure to continuous sources where the exposure relation ~~((shall))~~ must not be less than 0.1 sec.

(b) The permissible exposure limit for occupational exposure to ultraviolet radiation incident upon skin or eye where irradiance values are known and exposure time is controlled are as follows:

(i) For the near ultraviolet spectral region (320 to 400 nanometer (nm)), total irradiance incident upon the unprotected skin or eye ~~((shall))~~ must not exceed 1.0 milliwatt/sq. centimeter for periods greater than 10<sup>3</sup> seconds (approximately 16 minutes) and for exposure times less than 10<sup>3</sup> seconds shall not exceed one Joule/sq. centimeter.

(ii) For the actinic ultraviolet spectral region (200 - 315 nm), radiant exposure incident upon the unprotected skin or eye ~~((shall))~~ must not exceed the values given in Table 4 within an 8-hour period.

(iii) To determine the effective irradiance of a broadband source weighted against the peak of the spectral effectiveness curve (270 nanometer (nm)), the following weighting formulas shall be used.

$$E_{\text{eff}} = \sum (E\text{-Lambda}) (S\text{-Lambda}) (\Delta\text{-Lambda})$$

Where:

- $E_{\text{eff}}$  = effective irradiance relative to a monochromatic source at 270nm
- E-Lambda = spectral irradiance in Watts/sq. centimeter/nanometer.
- S-Lambda = relative spectral effectiveness (unitless)
- Delta-Lambda = band width in nanometers

(iv) Permissible exposure time in seconds for exposure to actinic ultraviolet radiation incident upon the unprotected skin or eye may be computed by dividing 0.003 Joules/sq. centimeter by  $E_{\text{eff}}$  in Watts/sq. centimeter. The exposure time may also be determined using Table 5 which provides exposure times corresponding to effective irradiances in  $\mu\text{W}/\text{cm}^2$ .

TABLE 4

Wavelength nanometer	PEL millijoules/sq. centimeters	Relative Spectral Effectiveness S Lambda
200	100	0.03
210	40	0.075
220	25	0.12
230	16	0.19
240	10	0.30
250	7.0	0.43
254	6.0	0.5
260	4.6	0.65
270	3.0	1.0
280	3.4	0.88
290	4.7	0.64
300	10	0.30
305	50	0.06
310	200	0.015
315	1000	0.003

TABLE 5

Duration of Exposure Per Day	Effective Irradiance $E_{\text{eff}}$ ( $\mu\text{W}/\text{cm}^2$ )
8 hrs.	0.1
4 hrs.	0.2
2 hrs.	0.4
1 hr.	0.8
1/2 hr.	1.7
15 min.	3.3
10 min.	5
5 min.	10
1 min.	50
30 sec.	100
10 sec.	300
1 sec.	3,000
0.5 sec.	6,000
0.1 sec.	30,000

TABLE 6

Densities and Transmissions (in Percent); also Tolerances in Densities and Transmissions of Various Shades of Glasses for Protection Against Injurious Rays

(Shades 3 to 8, inclusive, are for use in goggles, shades 10 to 14, inclusive, for welder's helmets and face shields)

[CODIFICATION NOTE: The graphic presentation of this table has been varied slightly in order that it would fall within the printing specifications for the Washington Administrative Code. In the following table, the original table had columns relating to (1) "Optical Density" which is now "Part 1," (2) "Total Visible Luminous Transmittance" and "Maximum total Infrared" which are now "Part 2," (3) "Maximum Ultraviolet Transmission" which is now "Part 3," and (4) "Recommended Uses" which is now "Part 4." These columns were all positioned side by side. In the new WAC format these are split up into four separate tables.]

TABLE 6—Part 1

Shade No.	Optical Density		
	Minimum [C]O.D.	Standard O.D.	Maximum O.D.
3.0	.64	.857	1.06
4.0	1.07	1.286	1.49
5.0	1.50	1.714	1.92
6.0	1.93	2.143	2.35
7.0	2.36	2.572	2.78
8	2.79	3.000	3.21
9	3.22	3.429	3.63
10	3.64	3.857	4.06
11	4.07	4.286	4.49
12	4.50	4.715	4.92
13	4.93	5.143	5.35
14	5.36	5.571	5.78

TABLE 6—Part 2

Shade No.	Total Visible Luminous Transmittance			Maximum Total Infrared %
	Maximum %	Standard %	Minimum %	
3.0	22.9	13.9	8.70	9.0
4.0	8.51	5.18	3.24	5.0
5.0	3.16	1.93	1.20	2.5
6.0	1.18	.72	.45	1.5
7.0	.44	.27	.17	1.3
8	.162	.100	.062	1.0
9	.060	.037	.023	.8
10	.0229	.0139	.0087	.6
11	.0085	.0052	.0033	.5
12	.0032	.0019	.0012	.5
13	.00118	.00072	.00045	.4
14	.00044	.00027	.00017	.3

TABLE 6—Part 3

Maximum Ultraviolet Transmission

Shade No.	313mu %	334mu %	365mu %	405mu %
3.0	.2	.2	.5	1.0
4.0	.2	.2	.5	1.0
5.0	.2	.2	.2	.5
6.0	.1	.1	.1	.5
7.0	.1	.1	.1	.5
8	.1	.1	.1	.5
9	.1	.1	.1	.5
10	.1	.1	.1	.5
11	.05	.05	.05	.1
12	.05	.05	.05	.1
13	.05	.05	.05	.1
14	.05	.05	.05	.1

TABLE 6—Part 4

Shade No.	Recommended Uses
3.0	Glare of reflected sunlight from snow, water, sand, etc., stray light from cutting and welding metal pouring and work around furnaces and foundries.
4.0	
5.0	Light acetylene cutting and welding; light electric spot welding.
6.0	
7.0	Acetylene cutting and medium welding; arc welding up to 30 amperes.
8	
9	Heavy acetylene welding; arc cutting and welding between 30 and 75 amperes.
10	
11	Arc cutting and welding between 75 and 200 amperes.
12	
13	Arc cutting and welding between 200 and 400 amperes.
14	Arc cutting and welding above 400 amperes.

- a. American Standard Safety Code for the Protection of Heads, Eyes, and Respiratory Organs.
- b. Standard density is defined as the logarithms (base 10) of the reciprocal of the transmission. Shade number is determined by the density according to the relations:

Shade number = 7/3 density + 1 with tolerances as given in the table.

Note: Safety glasses are available with lenses which protect the eyes against ultraviolet radiation.

**Reviser's note:** The brackets and enclosed material in the text of the above section occurred in the copy filed by the agency and appear in the Register pursuant to the requirements of RCW 34.08.040.

**AMENDATORY SECTION** (Amending WSR 91-11-070, filed 5/20/91, effective 6/20/91)

**WAC 296-62-09007 Pressure.** (1) Employees exposed to pressures above normal atmospheric pressure which may produce physiological injury ~~((shall))~~ must adhere to decompression schedules or other tables as are or may be adopted by the department of labor and industries: for example, state of Washington "safety standards for compressed air work" and "safety standards for commercial diving operations." The employer ~~((shall))~~ must provide and supervise the use of decompression equipment and schedules in accordance with applicable requirements.

(2) If no specific requirements prevail for an unusual condition, a plan based on the recommendations of professionally qualified advisors, experienced with hazards associated with such exposures, ~~((shall))~~ must be followed by both the employer and employee.

**AMENDATORY SECTION** (Amending Order 73-3, filed 5/7/73)

**WAC 296-62-09009 Vibration.** Reasonable precautions ~~((shall))~~ must be taken to protect workmen against the hazardous effects of unavoidable exposure to vibrations.

**AMENDATORY SECTION** (Amending Order 73-3, filed 5/7/73)

**WAC 296-62-09013 Temperature, radiant heat, or temperature-humidity combinations.** ~~((+))~~ Workmen subjected to temperature extremes, radiant heat, humidity, or air velocity combinations which, over a period of time, are likely to produce physiological responses which are harmful ~~((shall))~~ must be afforded protection by use of adequate controls, methods or procedures, or protective clothing. This ~~((shall))~~ must not be construed to apply to normal occupations under atmospheric conditions which may be expected in the area except that special provisions which are required by other regulations for certain areas or occupations ~~((shall))~~ must prevail.

**AMENDATORY SECTION** (Amending WSR 08-12-109, filed 6/4/08, effective 7/5/08)

**WAC 296-62-09510 Scope and purpose.** (1) WAC 296-62-095 through 296-62-09560 applies to all employers with employees performing work in an outdoor environment.

(2) The requirements of WAC 296-62-095 through 296-62-09560 apply to outdoor work environments from May 1 through September 30, annually, only when employees are exposed to outdoor heat at or above an applicable temperature listed in Table 1.

**Table 1**

To determine which temperature applies to each worksite, select the temperature associated with the general type of clothing or personal protective equipment (PPE) each employee is required to wear.

Outdoor Temperature Action Levels

All other clothing	89°
Double-layer woven clothes including coveralls, jackets and sweatshirts	77°
Nonbreathing clothes including vapor barrier clothing or PPE such as chemical resistant suits	52°

**Note:** There is no requirement to maintain temperature records. The temperatures in Table 1 were developed based on Washington state data and are not applicable to other states.

(3) WAC 296-62-095 through 296-62-09560 does not apply to incidental exposure which exists when an employee is not required to perform a work activity outdoors for more than fifteen minutes in any sixty-minute period. This exception may be applied every hour during the work shift.

(4) WAC 296-62-095 through 296-62-09560 supplement all industry-specific standards with related requirements. Where the requirements under these sections provide more specific or greater protection than the industry-specific standards, the employer ~~((shall))~~ must comply with the requirements under these sections. Additional related requirements are found in chapter 296-305 WAC, Safety standards for firefighters and chapter 296-307 WAC, Safety standards for agriculture.

**AMENDATORY SECTION** (Amending WSR 08-12-109, filed 6/4/08, effective 7/5/08)

**WAC 296-62-09520 Definitions.** ~~((+))~~ **Acclimatization** ~~((means))~~ The body's temporary adaptation to work in heat that occurs as a person is exposed to it over time.

~~((2))~~ **Double-layer woven clothing** ~~((means))~~ Clothing worn in two layers allowing air to reach the skin. For example, coveralls worn on top of regular work clothes.

~~((3))~~ **Drinking water** ~~((means))~~ Potable water that is suitable to drink. Drinking water packaged as a consumer product and electrolyte-replenishing beverages (i.e., sports drinks) that do not contain caffeine are acceptable.

~~((4))~~ **Engineering controls** ~~((means))~~ The use of devices to reduce exposure and aid cooling (i.e., air conditioning).

~~((5))~~ **Environmental factors for heat-related illness** ~~((means))~~ Working conditions that increase susceptibility for heat-related illness such as air temperature, relative humidity, radiant heat from the sun and other sources, conductive heat sources such as the ground, air movement, workload (i.e., heavy, medium, or low) and duration, and personal protective equipment worn by employees. Measurement of environmental factors is not required by WAC 296-62-095.

~~((6))~~ **Heat-related illness** ~~((means))~~ A medical condition resulting from the body's inability to cope with a particular heat load, and includes, but is not limited to, heat cramps, heat rash, heat exhaustion, fainting, and heat stroke.

~~((7))~~ **Outdoor environment** ~~((means))~~. An environment where work activities are conducted outside. Work environments such as inside vehicle cabs, sheds, and tents or other structures may be considered an outdoor environment if the environmental factors affecting temperature are not managed by engineering controls. Construction activity is considered to be work in an indoor environment when performed inside a structure after the outside walls and roof are erected.

~~((8))~~ **Vapor barrier clothing** ~~((means))~~. Clothing that significantly inhibits or completely prevents sweat produced by the body from evaporating into the outside air. Such clothing includes encapsulating suits, various forms of chemical resistant suits used for PPE, and other forms of nonbreathing clothing.

AMENDATORY SECTION (Amending WSR 99-10-071, filed 5/4/99, effective 9/1/99)

**WAC 296-62-11019 Spray-finishing operations.** (1) Definitions.

(a) ~~("Spray finishing operations" means)~~ **Spray-finishing operations.** Employment of methods wherein organic or inorganic materials are utilized in dispersed form from deposit on surfaces to be coated, treated or cleaned. Such methods of deposit may involve either automatic, manual, or electrostatic deposition but do not include metal spraying or metallizing, dipping, flow coating, roller coating, tumbling, centrifuging, or spray washing and degreasing as conducted in self-contained washing and degreasing machines or systems.

(b) ~~("")~~ **Spray booth** ~~("")~~. Spray booths are defined and described in WAC 296-24-370 through 296-24-37007. (See sections 103, 104, and 105 of the Standard for Spray Finishing Using Flammable and Combustible Materials, NFPA No. 33-1969.)

(c) ~~("")~~ **Spray room** ~~("means")~~. A room in which spray-finishing operations not conducted in a spray booth are performed separately from other areas.

(d) ~~("Minimum maintained velocity" means)~~ **Minimum maintained velocity.** The velocity of air movement which must be maintained in order to meet minimum specifications for health and safety.

(2) Location and application. Spray booths or spray rooms are to be used to enclose or confine all operations. Spray-finishing operations ~~((shall))~~ **must** be located as provided in sections 201 through 206 of the Standard for Spray Finishing Using Flammable and Combustible Materials, NFPA No. 33-1969.

(3) Design and construction of spray booths.

(a) Spray booths ~~((shall))~~ **must** be designed and constructed in accordance with WAC 296-24-370 through 296-24-37007 (see sections 301-304 and 306-310 of the Standard for Spray Finishing Using Flammable and Combustible Materials, NFPA No. 33-1969), for general construction specifications.

Note: For a more detailed discussion of fundamentals relating to this subject, see ANSI Z9.2-1960.

(i) Lights, motors, electrical equipment and other sources of ignition ~~((shall))~~ **must** conform to the requirements of WAC 296-24-370. (See section 310 and chapter 4 of the

Standard for Spray Finishing Using Flammable and Combustible Materials, NFPA No. 33-1969.)

(ii) In no case ~~((shall))~~ **must** combustible material be used in the construction of a spray booth and supply or exhaust duct connected to it.

(b) Unobstructed walkways ~~((shall))~~ **must** not be less than 6 1/2 feet high and ~~((shall))~~ **must** be maintained clear of obstruction from any work location in the booth to a booth exit or open booth front. In booths where the open front is the only exit, such exits ~~((shall))~~ **must** be not less than 3 feet wide. In booths having multiple exits, such exits ~~((shall))~~ **must** not be less than 2 feet wide, provided that the maximum distance from the work location to the exit is 25 feet or less. Where booth exits are provided with doors, such doors shall open outward from the booth.

(c) Baffles, distribution plates, and dry-type overspray collectors ~~((shall))~~ **must** conform to the requirements of WAC 296-24-370. (See sections 304 and 305 of the Standard for Spray Finishing Using Flammable and Combustible Materials, NFPA No. 33-1969.)

(i) Overspray filters ~~((shall))~~ **must** be installed and maintained in accordance with the requirements of WAC 296-24-370, (See section 305 of the Standard for Spray Finishing Using Flammable and Combustible Materials, NFPA No. 33-1969), and ~~((shall))~~ **must** only be in a location easily accessible for inspection, cleaning, or replacement.

(ii) Where effective means, independent of the overspray filters are installed which will result in design air distribution across the booth cross section, it is permissible to operate the booth without the filters in place.

(d)(i) For wet or water-wash spray booths, the water-chamber enclosure, within which intimate contact of contaminated air and cleaning water or other cleaning medium is maintained, if made of steel, ~~((shall))~~ **must** be 18 gauge or heavier and adequately protected against corrosion.

(ii) Chambers may include scrubber spray nozzles, headers, troughs, or other devices. Chambers ~~((shall))~~ **must** be provided with adequate means for creating and maintaining scrubbing action for removal of particulate matter from the exhaust air stream.

(e) Collecting tanks ~~((shall))~~ **must** be of welded steel construction or other suitable noncombustible material. If pits are used as collecting tanks, they ~~((shall))~~ **must** be concrete, masonry, or other material having similar properties.

(i) Tanks ~~((shall))~~ **must** be provided with weirs, skimmer plates, or screens to prevent sludge and floating paint from entering the pump suction box. Means for automatically maintaining the proper water level ~~((shall))~~ **must** also be provided. Fresh water inlets ~~((shall))~~ **must** not be submerged. They ~~((shall))~~ **must** terminate at least one pipe diameter above the safety overflow level of the tank.

(ii) Tanks ~~((shall))~~ **must** be so constructed as to discourage accumulation of hazardous deposits.

(f) Pump manifolds, risers, and headers ~~((shall))~~ **must** be adequately sized to insure sufficient water flow to provide efficient operation of the water chamber.

(4) Design and construction of spray rooms.

(a) Spray rooms, including floors, ~~((shall))~~ **must** be constructed of masonry, concrete, or other noncombustible material.

(b) Spray rooms ((shall)) must have noncombustible fire doors and shutters.

(c) Spray rooms ((shall)) must be adequately ventilated so that the atmosphere in the breathing zone of the operator ((shall)) must be maintained in accordance with the requirements of (6)(b) of this section.

(d) Spray rooms used for production spray-finishing operations ((shall)) must conform to the requirements of spray booths.

(5) Ventilation.

(a) Ventilation ((shall)) must be provided in accordance with provisions of WAC 296-24-370, (See chapter 5 of the Standard for Spray Finishing Using Flammable or Combustible Materials, NFPA No. 33-1969), and in accordance with the following:

(i) Where a fan plenum is used to equalize or control the distribution of exhaust air movement through the booth, it ((shall)) must be of sufficient strength or rigidity to withstand the differential air pressure or other superficially imposed loads for which the equipment is designed and also to facilitate cleaning. Construction specifications ((shall)) must be at least equivalent to those of (5)(c) of this section.

(ii) All fan ratings ((shall)) must be in accordance with Air Moving and Conditioning Association Standard Test Code for Testing Air Moving Devices, Bulletin 210, April 1962.

(b) Inlet or supply ductwork used to transport makeup air to spray booths or surrounding areas ((shall)) must be constructed of noncombustible materials.

(i) If negative pressure exists within inlet ductwork, all seams and joints ((shall)) must be sealed if there is a possibility of infiltration of harmful quantities of noxious gases, fumes, or mists from areas through which ductwork passes.

(ii) Inlet ductwork ((shall)) must be sized in accordance with volume flow requirements and provide design air requirements at the spray booth.

(iii) Inlet ductwork ((shall)) must be so supported throughout its length to sustain at least its own weight plus any negative pressure which is exerted upon it under normal operating conditions.

(c) Ducts ((shall)) must be so constructed as to provide structural strength and stability at least equivalent to sheet steel of not less than the following thickness:

DIAMETER OR GREATER DIMENSION	(U.S. gauge)
Up to 8 inches inclusive . . . . .	No. 24
Over 8 inches to 18 inches inclusive . . . . .	No. 22
Over 18 inches to 30 inches inclusive . . . . .	No. 20
Over 30 inches . . . . .	No. 18

(i) Exhaust ductwork ((shall)) must be adequately supported throughout its length to sustain its weight plus any normal accumulation in interior during normal operating conditions and any negative pressure exerted upon it.

(ii) Exhaust ductwork ((shall)) must be sized in accordance with good design practice which shall include consideration of fan capacity, length of duct, number of turns and

elbows, variation in size, volume, and character of materials being exhausted. See American National Standard Z9.2-1960 for further details and explanation concerning elements of design.

(iii) Longitudinal joints in sheet steel ductwork ((shall)) must be either lock-seamed, riveted, or welded. For other than steel construction, equivalent securing of joints ((shall)) must be provided.

(iv) Circumferential joints in ductwork ((shall)) must be substantially fastened together and lapped in the direction of airflow. At least every fourth joint ((shall)) must be provided with connecting flanges, bolted together or of equivalent fastening security.

(v) Inspection or clean-out doors ((shall)) must be provided for every nine to twelve feet of running length for ducts up to twelve inches in diameter, but the distance between clean-out doors may be greater for larger pipes. (See 8.3.21 of American National Standard Z9.1-1960.) A clean-out door or doors ((shall)) must be provided for servicing the fan, and where necessary, a drain shall be provided.

(vi) Where ductwork passes through a combustible roof or wall, the roof or wall ((shall)) must be protected at the point of penetration by open space or fire-resistive material between the duct and the roof or wall. When ducts pass through fire-walls, they ((shall)) must be provided with automatic fire dampers on both sides of the wall, except that three-eighth-inch steel plates may be used in lieu of automatic fire dampers for ducts not exceeding 18 inches in diameter.

(vii) Ductwork used for ventilating any process covered in this standard ((shall)) must not be connected to ducts ventilating any other process or any chimney or flue used for conveying any products of combustion.

(6) Velocity and air flow requirements.

(a) Except where a spray booth has an adequate air replacement system, the velocity of air into all openings of a spray booth ((shall)) must be not less than that specified in Table 14 for the operating conditions specified. An adequate air replacement system is one which introduces replacement air upstream or above the object being sprayed and is so designed that the velocity of air in the booth cross section is not less than that specified in Table 14 when measured upstream or above the object being sprayed.

**TABLE 14**  
MINIMUM MAINTAINED VELOCITIES  
INTO SPRAY BOOTHS

Operating Airflow conditions for object completely inside booth	Crossdraft f.p.m.	Velocities, f.p.m.	
		Design	Range
Electrostatic and automatic airless operation contained in booth without operator.	Negligible . . .	50 large booth	50-75
		100 small booth	75-125
Air-operated guns, manual or automatic	Up to 50 . . .	100 large booth	75-125
		150 small booth	125-175
Air-operated guns, manual or automatic	Up to 100 . . .	150 large booth	125-175
		200 small booth	150-250

Notes:

- (1) Attention is invited to the fact that the effectiveness of the spray booth is dependent upon the relationship of the depth of the booth to its height and width.
- (2) Crossdrafts can be eliminated through proper design and such design should be sought. Crossdrafts in excess of 100 fpm (feet per minute) should not be permitted.
- (3) Excessive air pressures result in loss of both efficiency and material waste in addition to creating a backlash that may carry overspray and fumes into adjacent work areas.
- (4) Booths should be designed with velocity shown in the column headed "Design." However, booths operating with velocities shown in the column headed "Range" are in compliance with this standard.

(b) In addition to the requirements in (6)(a) of this section the total air volume exhausted through a spray booth ((shall)) must be such as to dilute solvent vapor to at least 25 percent of the lower explosive limit of the solvent being sprayed. An example of the method of calculating this volume is given below.

Example: To determine the lower explosive limits of the most common solvents used in spray finishing, see Table 15. Column 1 gives the number of cubic feet of vapor per gallon of solvent and column 2 gives the lower explosive limit (LEL) in percentage by volume of air. Note that the quantity of solvent will be diminished by the quantity of solids and nonflammable contained in the finish.

To determine the volume of air in cubic feet necessary to dilute the vapor from 1 gallon of solvent to 25 percent of the lower explosive limit, apply the following formula:

$$\text{Dilution volume required per gallon of solvent} = \frac{4 (100\text{-LEL})}{\text{LEL}} \text{ (cubic feet of vapor per gallon)}$$

Using toluene as the solvent.

- (1) LEL of toluene from Table 15, column 2, is 1.4 percent.
- (2) Cubic feet of vapor per gallon from Table 15, column 1, is 30.4 cubic feet per gallon.
- (3) Dilution volume required =

$$\frac{4 (100\text{-}1.4) 30.4}{1.4} = 8,564 \text{ cubic feet.}$$

(4) To convert to cubic feet per minute of required ventilation, multiply the dilution volume required per gallon of solvent by the number of gallons of solvent evaporated per minute.

**TABLE 15**  
LOWER EXPLOSIVE LIMIT OF SOME  
COMMONLY USED SOLVENTS

Solvent	Lower explosive limit in percent by volume of air at 70°F.	
	Cubic feet of vapor per gallon of liquid at 70°F.	
	Column 1	Column 2
Acetone . . . . .	44.0	2.6
Amyl Acetate (iso) . . . . .	21.6	1.0 <sup>1</sup>
Amyl Alcohol (n) . . . . .	29.6	1.2
Amyl Alcohol (iso) . . . . .	29.6	1.2

Solvent	Cubic feet of vapor per gallon of liquid at 70°F.	Lower explosive limit in percent by volume of air at 70°F.
Benzene . . . . .	36.8	1.4 <sup>1</sup>
Butyl Acetate (n) . . . . .	24.8	1.7
Butyl Alcohol (n) . . . . .	35.2	1.4
Butyl Cellosolve . . . . .	24.8	1.1
Cellosolve . . . . .	33.6	1.8
Cellosolve Acetate . . . . .	23.2	1.7
Cyclohexanone . . . . .	31.2	1.1 <sup>1</sup>
1,1 Dichloroethylene . . . . .	42.4	5.6
1,2 Dichloroethylene . . . . .	42.4	9.7
Ethyl Acetate . . . . .	32.8	2.5
Ethyl Alcohol . . . . .	55.2	4.3
Ethyl Lactate . . . . .	28.0	1.5 <sup>1</sup>
Methyl Acetate . . . . .	40.0	3.1
Methyl Alcohol . . . . .	80.8	7.3
Methyl Cellosolve . . . . .	40.8	2.5
Methyl Ethyl Ketone . . . . .	36.0	1.8
Methyl n-Propyl Ketone . . . . .	30.4	1.5
Naphtha (VM&P) (76° Naphtha) . . . . .	22.4	0.9
Naphtha (100° Flash) Safety Solvent-Stoddard Solvent . . . . .	23.2	1.1
Propyl Acetate (n) . . . . .	27.2	2.0
Propyl Acetate (iso) . . . . .	28.0	1.8
Propyl Alcohol (n) . . . . .	44.8	2.1
Propyl Alcohol (iso) . . . . .	44.0	2.0
Toluene . . . . .	30.4	1.4
Turpentine . . . . .	20.8	0.8
Xylene (o) . . . . .	26.4	1.0

<sup>1</sup> At 212°F.

(c)(i) When an operator is in a booth downstream of the object being sprayed, an air-supplied respirator or other type of respirator certified by NIOSH under 42 C.F.R. part 84 for the material being sprayed should be used by the operator.

(ii) Where downdraft booths are provided with doors, such doors ((shall)) must be closed when spray painting.

(7) Make-up air.

(a) Clean fresh air, free of contamination from adjacent industrial exhaust systems, chimneys, stacks, or vents, ((shall)) must be supplied to a spray booth or room in quantities equal to the volume of air exhausted through the spray booth.

(b) Where a spray booth or room receives make-up air through self-closing doors, dampers, or louvers, they ((shall)) must be fully open at all times when the booth or room is in use for spraying. The velocity of air through such doors, dampers, or louvers ((shall)) must not exceed 200 feet per minute. If the fan characteristics are such that the required air

flow through the booth will be provided, higher velocities through the doors, dampers, or louvers may be used.

(c)(i) Where the air supply to a spray booth or room is filtered, the fan static pressure ~~((shall))~~ must be calculated on the assumption that the filters are dirty to the extent that they require cleaning or replacement.

(ii) The rating of filters ~~((shall))~~ must be governed by test data supplied by the manufacturer of the filter. A pressure gauge ~~((shall))~~ must be installed to show the pressure drop across the filters. This gauge ~~((shall))~~ must be marked to show the pressure drop at which the filters require cleaning or replacement. Filters ~~((shall))~~ must be replaced or cleaned whenever the pressure drop across them becomes excessive or whenever the air flow through the face of the booth falls below that specified in Table 14.

(d)(i) Means of heating make-up air to any spray booth or room, before or at the time spraying is normally performed, ~~((shall))~~ must be provided in all places where the outdoor temperature may be expected to remain below 55°F. for appreciable periods of time during the operation of the booth except where adequate and safe means of radiant heating for all operating personnel affected is provided. The replacement air during the heating seasons ~~((shall))~~ must be maintained at not less than 65°F. at the point of entry into the spray booth or spray room. When otherwise unheated make-up air would be at a temperature of more than 10°F. below room temperature, its temperature ~~((shall))~~ must be regulated as provided in section 3.6 of ANSI Z9.2-1960.

(ii) As an alternative to an air replacement system complying with the preceding section, general heating of the building in which the spray room or booth is located may be employed provided that all occupied parts of the building are maintained at not less than 65°F. when the exhaust system is in operation or the general heating system supplemented by other sources of heat may be employed to meet this requirement.

(iii) No means of heating make-up air ~~((shall))~~ must be located in a spray booth.

(iv) Where make-up air is heated by coal or oil, the products of combustion ~~((shall))~~ must not be allowed to mix with the make-up air, and the products of combustion ~~((shall))~~ must be conducted outside the building through a flue terminating at a point remote from all points where make-up air enters the building.

(v) Where make-up air is heated by gas, and the products of combustion are not mixed with the make-up air but are conducted through an independent flue to a point outside the building remote from all points where make-up air enters the building, it is not necessary to comply with (7)(d)(vi) of this section.

(vi) Where make-up air to any manually operated spray booth or room is heated by gas and the products of combustion are allowed to mix with the supply air, the following precautions must be taken:

(A) The gas must have a distinctive and strong enough odor to warn workmen in a spray booth or room of its presence if in an unburned state in the make-up air.

(B) The maximum rate of gas supply to the make-up air heater burners must not exceed that which would yield in excess of 200 p.p.m. (parts per million) of carbon monoxide

or 2,000 p.p.m. of total combustible gases in the mixture if the unburned gas upon the occurrence of flame failure were mixed with all of the make-up air supplied.

(C) A fan must be provided to deliver the mixture of heated air and products of combustion from the plenum chamber housing the gas burners to the spray booth or room.

(8) Scope. Spray booths or spray rooms are to be used to enclose or confine all spray finishing operations covered by this paragraph. This paragraph does not apply to the spraying of the exteriors of buildings, fixed tanks, or similar structures, nor to small portable spraying apparatus not used repeatedly in the same location.

AMENDATORY SECTION (Amending WSR 07-23-072, filed 11/19/07, effective 1/2/08)

**WAC 296-62-135 Oxygen deficient atmospheres. (1)**

**Definition.** A lack of sufficient oxygen is deemed to exist if the atmosphere at sea level has less than 19.5% oxygen by volume or has a partial pressure of oxygen of 148 millimeters of mercury (mm Hg) or less. This may deviate when working at higher elevations and should be determined for an individual location. Factors such as acclimatization, physical conditions of the persons involved, etc., must be considered for such circumstances and conditions.

(2) **Entering areas with possible oxygen deficient atmospheres.** Workers entering any area where a lack of sufficient oxygen is probable ~~((shall))~~ must be supplied with and ~~((shall))~~ must use approved equipment (for specific requirements see applicable provisions of chapters 296-62, 296-307 (Part-U3), 296-809 and 296-841 WAC) capable of providing safe respirable air, or prior to entry and at all times when workers are in such areas a sufficient supply of safe, respirable air ~~((shall))~~ must be provided. All workers so exposed ~~((shall))~~ must be under constant observation. If the oxygen content is unknown or may change during occupation, tests ~~((shall))~~ must be required prior to and during occupation of questionable areas.

AMENDATORY SECTION (Amending WSR 07-23-072, filed 11/19/07, effective 1/2/08)

**WAC 296-62-13605 Definition.** Ventilation shall mean the provision, circulation or exhausting of air into or from an area or space.

~~((1)) "Local exhaust ventilation" shall mean the mechanical removal of contaminated air from the point where the contaminant is being generated or liberated.~~

~~((2)) "Dilution ventilation" means inducing and mixing uncontaminated air with contaminated air in such quantities that the resultant mixture in the breathing zone will not exceed the permissible exposure limit (PEL) specified for any contaminant.~~

~~((3)) "Exhaust ventilation" means the general movement of air out of the area or permit-required confined space by mechanical or natural means.~~

~~((4)) "Tempered make-up air" means air which has been conditioned by changing its heat content to obtain a specific desired temperature.)~~ **Dilution ventilation.** Inducing and mixing uncontaminated air with contaminated air in such quantities that the resultant mixture in the breathing zone will

not exceed the permissible exposure limit (PEL) specified for any contaminant.

**Exhaust ventilation.** The general movement of air out of the area or permit-required confined space by mechanical or natural means.

**Local exhaust ventilation.** The mechanical removal of contaminated air from the point where the contaminant is being generated or liberated.

**Tempered make-up air.** Air which has been conditioned by changing its heat content to obtain a specific desired temperature.

**AMENDATORY SECTION** (Amending WSR 07-23-072, filed 11/19/07, effective 1/2/08)

**WAC 296-62-13615 Adequate system.** Adequate ventilation systems (~~shall~~) must be installed as needed to control concentrations of airborne contaminants below applicable threshold limit values.

**AMENDATORY SECTION** (Amending WSR 07-23-072, filed 11/19/07, effective 1/2/08)

**WAC 296-62-13620 Exhaust.** Exhaust from ventilation systems (~~shall~~) must discharge in such a manner that the contaminated air being exhausted will not present a health hazard to any workman or reenter buildings in harmful amounts.

**AMENDATORY SECTION** (Amending WSR 07-23-072, filed 11/19/07, effective 1/2/08)

**WAC 296-62-13625 Make-up air quantity.** Make-up air (~~shall~~) must be of ample quantity to replace the exhausted air and shall be tempered when necessary.

**AMENDATORY SECTION** (Amending WSR 07-23-072, filed 11/19/07, effective 1/2/08)

**WAC 296-62-13630 Design and operation.** Ventilation systems (~~shall~~) must be designed and operated in such a manner that employees will not be subjected to excessive air velocities.

**AMENDATORY SECTION** (Amending WSR 07-23-072, filed 11/19/07, effective 1/2/08)

**WAC 296-62-13635 Compatibility of systems.** Make-up air systems (~~shall~~) must be designed and operated in such a manner that they will not interfere with the effectiveness of the exhaust air system.

**AMENDATORY SECTION** (Amending WSR 14-07-086, filed 3/18/14, effective 5/1/14)

**WAC 296-62-14533 Cotton dust.** (1) Scope and application.

(a) This section, in its entirety, applies to the control of employee exposure to cotton dust in all workplaces where employees engage in yarn manufacturing, engage in slashing

and weaving operations, or work in waste houses for textile operations.

(b) This section does not apply to the handling or processing of woven or knitted materials; to maritime operations covered by chapters 296-56 and 296-304 WAC; to harvesting or ginning of cotton; or to the construction industry.

(c) Only subsection (8) of this section, Medical surveillance, subsection (11)(b) of this section, Medical surveillance, subsection (11)(c) of this section, Availability, subsection (11)(d) of this section, Transfer of records, and Appendices B, C, and D of this section apply in all work places where employees exposed to cotton dust engage in cottonseed processing or waste processing operations.

(d) This section applies to yarn manufacturing and slashing and weaving operations exclusively using washed cotton (as defined by subsection (14) of this section) only to the extent specified by subsection (14) of this section.

(e) This section, in its entirety, applies to the control of all employees exposure to the cotton dust generated in the preparation of washed cotton from opening until the cotton is thoroughly wetted.

(f) This section does not apply to knitting, classing or warehousing operations except that employers with these operations, if requested by WISHA, (~~shall~~) must grant WISHA access to their employees and workplaces for exposure monitoring and medical examinations for purposes of a health study to be performed by WISHA on a sampling basis.

(2) Definitions applicable to this section:

(a) (~~"Blow down"~~) **Blow down.** The cleaning of equipment and surfaces with compressed air.

(b) (~~"Blow off"~~) **Blow off.** The use of compressed air for cleaning of short duration and usually for a specific machine or any portion of a machine.

(c) (~~"Cotton dust"~~) **Cotton dust.** Dust present in the air during the handling or processing of cotton, which may contain a mixture of many substances including ground-up plant matter, fiber, bacteria, fungi, soil, pesticides, noncotton plant matter and other contaminants which may have accumulated with the cotton during the growing, harvesting and subsequent processing or storage periods. Any dust present during the handling and processing of cotton through the weaving or knitting of fabrics, and dust present in other operations or manufacturing processes using raw or waste cotton fibers or cotton fiber by-products from textile mills are considered cotton dust within this definition. Lubricating oil mist associated with weaving operations is not considered cotton dust.

(d) (~~"Director"~~) **Director.** The director of labor and industries or (~~his~~) their authorized representative.

(e) (~~"Equivalent instrument"~~) **Equivalent instrument.** A cotton dust sampling device that meets the vertical elutriator equivalency requirements as described in subsection (4)(a)(iii) of this section.

(f) (~~"Lint free respirable cotton dust"~~) **Lint free respirable cotton dust.** Particles of cotton dust of approximately 15 microns or less aerodynamic equivalent diameter.

(g) (~~"Vertical elutriator cotton dust sampler" or "vertical elutriator"~~) **Vertical elutriator cotton dust sampler or vertical elutriator.** A dust sampler which has a particle size cut-off at approximately 15 microns aerodynamic equivalent

diameter when operating at the flow rate of  $7.4 \pm 0.2$  liters per minute.

(h) (~~("Waste processing")~~) **Waste processing.** Waste recycling (sorting, blending, cleaning and willowing) and garnetting.

(i) (~~("Yarn manufacturing")~~) **Yarn manufacturing.** All textile mill operations from opening to, but not including, slashing and weaving.

(3) Permissible exposure limits and action levels.

(a) Permissible exposure limits (PEL).

(i) The employer (~~(shall assure)~~) **must ensure** that no employee who is exposed to cotton dust in yarn manufacturing and cotton washing operations is exposed to airborne concentrations of lint-free respirable cotton dust greater than  $200 \mu\text{g}/\text{m}^3$  mean concentration, averaged over an eight-hour period, as measured by a vertical elutriator or an equivalent instrument.

(ii) The employer (~~(shall assure)~~) **must ensure** that no employee who is exposed to cotton dust in textile mill waste house operations or is exposed in yarn manufacturing to dust from "lower grade washed cotton" as defined in subsection (14)(e) of this section is exposed to airborne concentrations of lint-free respirable cotton dust greater than  $500 \mu\text{g}/\text{m}^3$  mean concentration, averaged over an eight-hour period, as measured by a vertical elutriator or an equivalent instrument.

(iii) The employer (~~(shall assure)~~) **must ensure** that no employee who is exposed to cotton dust in the textile processes known as slashing and weaving is exposed to airborne concentrations of lint-free respirable cotton dust greater than  $750 \mu\text{g}/\text{m}^3$  mean concentration, averaged over an eight-hour period, as measured by a vertical elutriator or an equivalent instrument.

(b) Action levels.

(i) The action level for yarn manufacturing and cotton washing operations is an airborne concentration of lint-free respirable cotton dust of  $100 \mu\text{g}/\text{m}^3$  mean concentration, averaged over an eight-hour period, as measured by a vertical elutriator or an equivalent instrument.

(ii) The action level for waste houses for textile operations is an airborne concentration of lint-free respirable cotton dust of  $250 \mu\text{g}/\text{m}^3$  mean concentration, averaged over an eight-hour period, as measured by a vertical elutriator or an equivalent instrument.

(iii) The action level for the textile processes known as slashing and weaving is an airborne concentration of lint-free respirable cotton dust of  $375 \mu\text{g}/\text{m}^3$  mean concentration, averaged over an eight-hour period, as measured by a vertical elutriator or an equivalent instrument.

(4) Exposure monitoring and measurement.

(a) General.

(i) For the purposes of this section, employee exposure is that exposure which would occur if the employee were not using a respirator.

(ii) The sampling device to be used (~~(shall)~~) **must** be either the vertical elutriator cotton dust sampler or an equivalent instrument.

(iii) If an alternative to the vertical elutriator cotton dust sampler is used, the employer (~~(shall)~~) **must** establish equivalency by demonstrating that the alternative sampling devices:

(A) It collects respirable particulates in the same range as the vertical elutriator (approximately 15 microns);

(B) Replicate exposure data used to establish equivalency are collected in side-by-side field and laboratory comparisons; and

(C) A minimum of 100 samples over the range of 0.5 to 2 times the permissible exposure limit are collected, and ninety percent of these samples have an accuracy range of plus or minus twenty-five percent of the vertical elutriator reading with a ninety-five percent confidence level as demonstrated by a statistically valid protocol. (An acceptable protocol for demonstrating equivalency is described in Appendix E of this section.)

(iv) WISHA will issue a written opinion stating that an instrument is equivalent to a vertical elutriator cotton dust sampler if:

(A) A manufacturer or employer requests an opinion in writing and supplies the following information:

(I) Sufficient test data to demonstrate that the instrument meets the requirements specified in this paragraph and the protocol specified in Appendix E of this section;

(II) Any other relevant information about the instrument and its testing requested by WISHA; and

(III) A certification by the manufacturer or employer that the information supplied is accurate; and

(B) If WISHA finds, based on information submitted about the instrument, that the instrument meets the requirements for equivalency specified by this subsection.

(b) Initial monitoring. Each employer who has a place of employment within the scope of subsection ~~(1)~~(1)(a), (d) or (e) of this section (~~(shall)~~) **must** conduct monitoring by obtaining measurements which are representative of the exposure of all employees to airborne concentrations of lint-free respirable cotton dust over an eight-hour period. The sampling program (~~(shall)~~) **must** include at least one determination during each shift for each work area.

(c) Periodic monitoring.

(i) If the initial monitoring required by (4)(b) of this section or any subsequent monitoring reveals employee exposure to be at or below the permissible exposure limit, the employer shall repeat the monitoring for those employees at least annually.

(ii) If the initial monitoring required by (4)(b) of this section or any subsequent monitoring reveals employee exposure to be above the PEL, the employer (~~(shall)~~) **must** repeat the monitoring for those employees at least every six months.

(iii) Whenever there has been a production, process, or control change which may result in new or additional exposure to cotton dust, or whenever the employer has any other reason to suspect an increase in employee exposure, the employer (~~(shall)~~) **must** repeat the monitoring and measurements for those employees affected by the change or increase.

(d) Employee notification.

(i) Within fifteen working days after the receipt of monitoring results, the employer (~~(shall)~~) **must** notify each employee in writing of the exposure measurements which represent that employee's exposure.

(ii) Whenever the results indicate that the employee's exposure exceeds the applicable permissible exposure limit

specified in subsection (3) of this section, the employer ((shall)) must include in the written notice a statement that the permissible exposure limit was exceeded and a description of the corrective action taken to reduce exposure below the permissible exposure limit.

(5) Methods of compliance.

(a) Engineering and work practice controls. The employer ((shall)) must institute engineering and work practice controls to reduce and maintain employee exposure to cotton dust at or below the permissible exposure limit specified in subsection (3) of this section, except to the extent that the employer can establish that such controls are not feasible.

(b) Whenever feasible engineering and work practice controls are not sufficient to reduce employee exposure to or below the permissible exposure limit, the employer ((shall)) must nonetheless institute these controls to immediately reduce exposure to the lowest feasible level, and ((shall)) must supplement these controls with the use of respirators which ((shall)) must comply with the provisions of subsection (6) of this section.

(c) Compliance program.

(i) Where the most recent exposure monitoring data indicates that any employee is exposed to cotton dust levels greater than the permissible exposure limit, the employer ((shall)) must establish and implement a written program sufficient to reduce exposures to or below the permissible exposure limit solely by means of engineering controls and work practices as required by (a) of this subsection.

(ii) The written program ((shall)) must include at least the following:

(A) A description of each operation or process resulting in employee exposure to cotton dust;

(B) Engineering plans and other studies used to determine the controls for each process;

(C) A report of the technology considered in meeting the permissible exposure limit;

(D) Monitoring data obtained in accordance with subsection (4) of this section;

(E) A detailed schedule for development and implementation of engineering and work practice controls, including exposure levels projected to be achieved by such controls;

(F) Work practice program; and

(G) Other relevant information.

(iii) The employer's schedule as set forth in the compliance program, ((shall)) must project completion of the implementation of the compliance program no later than March 27, 1984 or as soon as possible if monitoring after March 27, 1984 reveals exposures over the PEL, except as provided in subsection (13)(b)(ii)(B) of this section.

(iv) The employer ((shall)) must complete the steps set forth in his program by the dates in the schedule.

(v) Written programs ((shall)) must be submitted, upon request, to the director, and ((shall)) must be available at the worksite for examination and copying by the director, and any affected employee or their designated representatives.

(vi) The written programs required under subsection (5)(c) of this section ((shall)) must be revised and updated at least every six months to reflect the current status of the program and current exposure levels.

(d) Mechanical ventilation. When mechanical ventilation is used to control exposure, measurements which demonstrate the effectiveness of the system to control exposure, such as capture velocity, duct velocity, or static pressure ((shall)) must be made at reasonable intervals.

(6) Use of respirators.

(a) General. For employees who are required to use respirators by this section, the employer must provide each employee an appropriate respirator that complies with the requirements of this section. Respirators must be used during:

(i) Periods necessary to install or implement feasible engineering controls and work-practice controls;

(ii) Maintenance and repair activities for which engineering and work-practice controls are not feasible;

(iii) Work operations for which feasible engineering and work-practice controls are not yet sufficient to reduce employee exposure to or below the permissible exposure limits;

(iv) Work operations specified under subsection (7)(a) of this section;

(v) Periods for which an employee requests a respirator.

(b) Respirator program.

(i) The employer must develop, implement and maintain a respiratory protection program as required by chapter 296-842 WAC, Respirators, which covers each employee required by this chapter to use a respirator.

(ii) Whenever a physician determines that an employee who works in an area in which the cotton-dust concentration exceeds the PEL is unable to use a respirator, including a powered air-purifying respirator, the employee must be given the opportunity to transfer to an available position, or to a position that becomes available later, that has a cotton-dust concentration at or below the PEL. The employer must ensure that such employees retain their current wage rate or other benefits as a result of the transfer.

(c) Respirator selection. The employer must:

(i) Select and provide to employees the appropriate respirators by following requirements in this section and WAC 296-842-13005, found in the respirator rule.

(ii) Provide employees with a powered air-purifying respirator (PAPR) when the employee chooses to use a PAPR instead of a negative-pressure air-purifying respirator, and the PAPR will provide adequate protection.

(iii) Limit the use of filtering facepiece respirators for protection against cotton dust to concentrations less than or equal to five times (5x) the PEL.

(iv) Provide high-efficiency particulate air (HEPA) filters or N-, R-, or P-100 series filters for powered air-purifying respirators (PAPRs) and negative-pressure air-purifying respirators when used in cotton dust concentrations greater than ten times (10x) the PEL.

(7) Work practices. Each employer ((shall)) must, regardless of the level of employee exposure, immediately establish and implement a written program of work practices which ((shall)) must minimize cotton dust exposure. The following ((shall)) must be included where applicable:

(a) Compressed air "blow down" cleaning shall be prohibited, where alternative means are feasible. Where compressed air is used for cleaning, the employees performing the "blow down" or "blow off" ((shall)) must wear suitable

respirators. Employees whose presence is not required to perform "blow down" or "blow off" (~~shall be required to~~) must leave the area affected by the "blow down" or "blow off" during this cleaning operation.

(b) Cleaning of clothing or floors with compressed air (~~shall~~) must be prohibited.

(c) Floor sweeping (~~shall~~) must be performed with a vacuum or with methods designed to minimize dispersal of dust.

(d) In areas where employees are exposed to concentrations of cotton dust greater than the permissible exposure limit, cotton and cotton waste (~~shall~~) must be stacked, sorted, baled, dumped, removed or otherwise handled by mechanical means, except where the employer can show that it is infeasible to do so. Where infeasible, the method used for handling cotton and cotton waste (~~shall~~) must be the method which reduces exposure to the lowest level feasible.

(8) Medical surveillance.

(a) General.

(i) Each employer covered by the standard (~~shall~~) must institute a program of medical surveillance for all employees exposed to cotton dust.

(ii) The employer (~~shall assure~~) must ensure that all medical examinations and procedures are performed by or under the supervision of a licensed physician and are provided without cost to the employee.

(iii) Persons other than licensed physicians, who administer the pulmonary function testing required by this section (~~shall~~) must have completed a NIOSH approved training course in spirometry.

(b) Initial examinations. The employer (~~shall~~) must provide medical surveillance to each employee who is or may be exposed to cotton dust. For new employees' this examination (~~shall~~) must be provided prior to initial assignment. The medical surveillance (~~shall~~) must include at least the following:

(i) A medical history;

(ii) The standardized questionnaire contained in WAC 296-62-14537; and

(iii) A pulmonary function measurement, including a determination of forced vital capacity (FVC) and forced expiratory volume in one second (FEV<sub>1</sub>), the FEV<sub>1</sub>/FVC ratio, and the percentage that the measured values of FEV<sub>1</sub> and FVC differ from the predicted values, using the standard tables in WAC 296-62-14539. These determinations (~~shall~~) must be made for each employee before the employee enters the workplace on the first day of the work week, preceded by at least thirty-five hours of no exposure to cotton dust. The tests (~~shall~~) must be repeated during the shift, no less than four hours and no more than ten hours after the beginning of the work shift; and, in any event, no more than one hour after cessation of exposure. Such exposure (~~shall~~) must be typical of the employee's usual workplace exposure. The predicted FEV<sub>1</sub> and FVC for blacks (~~shall~~) must be multiplied by 0.85 to adjust for ethnic differences.

(iv) Based upon the questionnaire results, each employee (~~shall~~) must be graded according to Schilling's byssinosis classification system.

(c) Periodic examinations.

(i) The employer (~~shall~~) must provide at least annual medical surveillance for all employees exposed to cotton dust above the action level in yarn manufacturing, slashing and weaving, cotton washing and waste house operations. The employer (~~shall~~) must provide medical surveillance at least every two years for all employees exposed to cotton dust at or below the action level, for all employees exposed to cotton dust from washed cotton (except from washed cotton defined in subsection (9)(c) of this section), and for all employees exposed to cotton dust in cottonseed processing and waste processing operations. Periodic medical surveillance (~~shall~~) must include at least an update of the medical history, standardized questionnaire (Appendix B-111), Schilling byssinosis grade, and the pulmonary function measurements in (b)(iii) of this subsection.

(ii) Medical surveillance as required in (c)(i) of this subsection (~~shall~~) must be provided every six months for all employees in the following categories:

(A) An FEV<sub>1</sub> of greater than eighty percent of the predicted value, but with an FEV<sub>1</sub> decrement of five percent or 200 ml. on a first working day;

(B) An FEV<sub>1</sub> of less than eighty percent of the predicted value; or

(C) Where, in the opinion of the physician, any significant change in questionnaire findings, pulmonary function results, or other diagnostic tests have occurred.

(iii) An employee whose FEV<sub>1</sub> is less than sixty percent of the predicted value (~~shall~~) must be referred to a physician for a detailed pulmonary examination.

(iv) A comparison (~~shall~~) must be made between the current examination results and those of previous examinations and a determination made by the physician as to whether there has been a significant change.

(d) Information provided to the physician. The employer (~~shall~~) must provide the following information to the examining physician:

(i) A copy of this regulation and its appendices;

(ii) A description of the affected employee's duties as they relate to the employee's exposure;

(iii) The employee's exposure level or anticipated exposure level;

(iv) A description of any personal protective equipment used or to be used; and

(v) Information from previous medical examinations of the affected employee which is not readily available to the examining physician.

(e) Physician's written opinion.

(i) The employer (~~shall~~) must obtain and furnish the employee with a copy of a written opinion from the examining physician containing the following:

(A) The results of the medical examination and tests including the FEV<sub>1</sub>, FVC, and FEV<sub>1</sub>/FVC ratio;

(B) The physician's opinion as to whether the employee has any detected medical conditions which would place the employee at increased risk of material impairment of the employee's health from exposure to cotton dust;

(C) The physician's recommended limitations upon the employee's exposure to cotton dust or upon the employee's

use of respirators including a determination of whether an employee can wear a negative pressure respirator, and where the employee cannot, a determination of the employee's ability to wear a powered air purifying respirator; and

(D) A statement that the employee has been informed by the physician of the results of the medical examination and any medical conditions which require further examination or treatment.

(ii) The written opinion obtained by the employer ~~((shall))~~ must not reveal specific findings or diagnoses unrelated to occupational exposure.

(9) Employee education and training.

(a) Training program.

(i) The employer ~~((shall))~~ must train each employee exposed to cotton dust in accordance with the requirements of this section and ~~((shall assure))~~ must ensure that each employee is informed of the following:

(A) The acute and long term health hazards associated with exposure to cotton dust;

(B) The names and descriptions of jobs and processes which could result in exposure to cotton dust at or above the PEL;

(C) The measures, including work practices required by subsection (7) of this section, necessary to protect the employee from exposures in excess of the permissible exposure limit;

(D) The purpose, proper use, limitations, and other training requirements for respiratory protection as required by subsection (6) of this section and chapter 296-842 WAC (see WAC 296-842-11005, 296-842-16005 and 296-842-19005);

(E) The purpose for and a description of the medical surveillance program required by subsection (8) of this section and other information which will aid exposed employees in understanding the hazards of cotton dust exposure; and

(F) The contents of this standard and its appendices.

(ii) The training program ~~((shall))~~ must be provided prior to initial assignment and ~~((shall))~~ must be repeated annually for each employee exposed to cotton dust, when job assignments or work processes change and when employee performance indicates a need for retraining.

(b) Access to training materials.

(i) Each employer ~~((shall))~~ must post a copy of this section with its appendices in a public location at the workplace, and ~~((shall))~~ must, upon request, make copies available to employees.

(ii) The employer ~~((shall))~~ must provide all materials relating to the employee training and information program to the director upon request.

(10) Signs.

~~((a))~~ The employer ~~((shall))~~ must post the following warning sign in each work area where the permissible exposure limit for cotton dust is exceeded:

DANGER  
COTTON DUST  
CAUSES DAMAGE TO LUNGS  
(BYSSINOSIS)  
WEAR RESPIRATORY PROTECTION IN THIS AREA

~~((b))~~ Prior to June 1, 2016, employers may use the following legend in lieu of that specified in (a) of this subsection:

WARNING  
COTTON DUST WORK AREA  
MAY CAUSE ACUTE OR DELAYED LUNG INJURY  
(BYSSINOSIS)  
RESPIRATORS REQUIRED IN THIS AREA))

(11) Recordkeeping.

(a) Exposure measurements.

(i) The employer ~~((shall))~~ must establish and maintain an accurate record of all measurements required by subsection (4) of this section.

(ii) The record ~~((shall))~~ must include:

(A) A log containing the items listed in WAC 296-62-14535 (4)(a), and the dates, number, duration, and results of each of the samples taken, including a description of the procedure used to determine representative employee exposures;

(B) The type of protective devices worn, if any, and length of time worn; and

(C) The names, Social Security number, job classifications, and exposure levels of employees whose exposure the measurement is intended to represent.

(iii) The employer ~~((shall))~~ must maintain this record for at least twenty years.

(b) Medical surveillance.

(i) The employer ~~((shall))~~ must establish and maintain an accurate medical record for each employee subject to medical surveillance required by subsection (8) of this section.

(ii) The record ~~((shall))~~ must include:

(A) The name and Social Security number and description of the duties of the employee;

(B) A copy of the medical examination results including the medical history, questionnaire response, results of all tests, and the physician's recommendation;

(C) A copy of the physician's written opinion;

(D) Any employee medical complaints related to exposure to cotton dust;

(E) A copy of this standard and its appendices, except that the employer may keep one copy of the standard and the appendices for all employees, provided that he references the standard and appendices in the medical surveillance record of each employee; and

(F) A copy of the information provided to the physician as required by subsection (8)(d) of this section.

(iii) The employer ~~((shall))~~ must maintain this record for at least twenty years.

(c) Availability.

(i) The employer ~~((shall))~~ must make all records required to be maintained by subsection (11) of this section available to the director for examination and copying.

(ii) Employee exposure measurement records and employee medical records required by this subsection ~~((shall))~~ must be provided upon request to employees, designated representatives, and the assistant director in accordance with chapter 296-802 WAC.

(d) Transfer of records.

(i) Whenever the employer ceases to do business, the successor employer ~~((shall))~~ must receive and retain all records required to be maintained by subsection (11) of this section.

(ii) The employer ((~~shall~~)) must also comply with any additional requirements involving transfer of records set forth in WAC 296-802-60005.

(12) Observation of monitoring.

(a) The employer ((~~shall~~)) must provide affected employees or their designated representatives an opportunity to observe any measuring or monitoring of employee exposure to cotton dust conducted pursuant to subsection (4) of this section.

(b) Whenever observation of the measuring or monitoring of employee exposure to cotton dust requires entry into an area where the use of personal protective equipment is required, the employer ((~~shall~~)) must provide the observer with and assure the use of such equipment and ((~~shall~~)) must require the observer to comply with all other applicable safety and health procedures.

(c) Without interfering with the measurement, observers ((~~shall~~)) must be entitled to:

(i) An explanation of the measurement procedures;

(ii) An opportunity to observe all steps related to the measurement of airborne concentrations of cotton dust performed at the place of exposure; and

(iii) An opportunity to record the results obtained.

(13) Washed cotton.

(a) Exemptions. Cotton, after it has been washed by the processes described in this section is exempt from all or parts of this section as specified if the requirements of this section are met.

(b) Initial requirements.

(i) In order for an employer to qualify as exempt or partially exempt from this standard for operations using washed cotton, the employer must demonstrate that the cotton was washed in a facility which is open to inspection by the director and the employer must provide sufficient accurate documentary evidence to demonstrate that the washing methods utilized meet the requirements of this section.

(ii) An employer who handles or processes cotton which has been washed in a facility not under the employer's control and claims an exemption or partial exemption under this paragraph, must obtain from the cotton washer and make available at the worksite, to the director, or ((~~his~~)) their designated representative, to any affected employee, or to their designated representative the following:

(A) A certification by the washer of the cotton of the grade of cotton, the type of washing process, and that the batch meets the requirements of this section:

(B) Sufficient accurate documentation by the washer of the cotton grades and washing process; and

(C) An authorization by the washer that the director may inspect the washer's washing facilities and documentation of the process.

(c) Medical and dyed cotton. Medical grade (USP) cotton, cotton that has been scoured, bleached and dyed, and mercerized yarn ((~~shall~~)) must be exempt from all provisions of this standard.

(d) Higher grade washed cotton. The handling or processing of cotton classed as "low middling light spotted or better" (color grade 52 or better and leaf grade code 5 or better according to the 1993 USDA classification system) ((~~shall~~)) must be exempt from all provisions of the standard

except requirements of subsection (8) of this section, medical surveillance; subsection (11)(b) through (d) of this section, recordkeeping-medical records, and Appendices B, C, and D of this section, if they have been washed on one of the following systems:

(i) On a continuous batt system or a rayon rinse system including the following conditions:

(A) With water;

(B) At a temperature of no less than 60°C;

(C) With a water-to-fiber ratio of no less than 40:1; and

(D) With the bacterial levels in the wash water controlled to limit bacterial contamination of the cotton.

(ii) On a batch kier washing system including the following conditions:

(A) With water;

(B) With cotton fiber mechanically opened and thoroughly pretwetted before forming the cake;

(C) For low-temperature processing, at a temperature of no less than 60°C with a water-to-fiber ratio of no less than 40:1; or, for high-temperature processing, at a temperature of no less than 93°C with a water-to-fiber ratio of no less than 15:1;

(D) With a minimum of one wash cycle followed by two rinse cycles for each batch, using fresh water in each cycle; and

(E) With bacterial levels in the wash water controlled to limit bacterial contamination of the cotton.

(e) Lower grade washed cotton. The handling and processing of cotton of grades lower than "low middling light spotted," that has been washed as specified in (d) of this subsection and has also been bleached, ((~~shall~~)) must be exempt from all provisions of the standard except the requirements of subsection (3)(a) of this section, Permissible exposure limits, subsection (4) of this section, Exposure monitoring and measurement, subsection (8) of this section, Medical surveillance, subsection (11) of this section, Recordkeeping, and Appendices B, C and D of this section.

(f) Mixed grades of washed cotton. If more than one grade of washed cotton is being handled or processed together, the requirements of the grade with the most stringent exposure limit, medical and monitoring requirements ((~~shall~~)) must be followed.

(14) Appendices.

(a) Appendix B (B-I, B-II and B-III), WAC 296-62-14537, Appendix C, WAC 296-62-14539 and Appendix D, WAC 296-62-14541 are incorporated as part of this chapter and the contents of these appendices are mandatory.

(b) Appendix A of this chapter, WAC 296-62-14535 contains information which is not intended to create any additional obligations not otherwise imposed or to detract from any existing obligations.

(c) Appendix E of this chapter is a protocol which may be followed in the validation of alternative measuring devices as equivalent to the vertical elutriator cotton dust sampler. Other protocols may be used if it is demonstrated that they are statistically valid, meet the requirements in subsection (4)(a)(iii) of this section, and are appropriate for demonstrating equivalency.

AMENDATORY SECTION (Amending WSR 80-17-014, filed 11/13/80)

**WAC 296-62-14535 Appendix A—Air sampling and analytical procedures for determining concentrations of cotton dust.** (1) Sampling locations. The sampling procedures must be designed so that samples of the actual dust concentrations are collected accurately and consistently and reflect the concentrations of dust at the place and time of sampling. Sufficient number of six-hour area samples in each distinct work area of the plant should be collected at locations which provide representative samples of air to which the worker is exposed. In order to avoid filter overloading, sampling time may be shortened when sampling in dusty areas. Samples in each work area should be gathered simultaneously or sequentially during a normal operating period. The daily time-weighted average (TWA) exposure of each worker can then be determined by using the following formula:

$$\frac{\text{Summation of hours spent in each location and the dust concentration in that location.}}{\text{Total hours spent}}$$

A time-weighted average concentration should be computed for each worker and properly logged and maintained on file for review.

(2) Sampling equipment.

(a) Sampler. The instrument selected for monitoring is the Lumsden-Lynch vertical elutriator. It should operate at a flow rate of  $7.4 \pm 0.2$  liters/minute. The samplers should be cleaned prior to sampling. The pumps should be monitored during sampling.

(b) Filter holder. A three-piece cassette constructed of polystyrene designed to hold a 37-mm diameter filter should be used. Care must be exercised to insure that an adequate seal exists between elements of the cassette.

(c) Filters and support pads. The membrane filters used should be polyvinyl chloride with a 5-um pore size and 37-mm diameter. A support pad, commonly called a backup pad, should be used under the filter membrane in the field monitor cassette.

(d) Balance. A balance sensitive to 10 micrograms should be used.

(3) Instrument calibration procedure. Samplers (~~shall~~) must be calibrated when first received from the factory, after repair, and after receiving any abuse. The samplers should be calibrated in the laboratory both before they are used in the field and after they have been used to collect a large number of field samples. The primary standard, such as a spirometer or other standard calibrating instruments such as a wet test meter or a large bubble meter or dry gas meter, should be used. Instructions for calibration with the wet test meter follow. If another calibration device is selected, equivalent procedures should be used:

(a) Level wet test meter. Check the water level which should just touch the calibration point at the left side of the meter. If water level is low, add water 1-2°F. warmer than room temperature of till point. Run the meter for thirty minutes before calibration;

(b) Place the polyvinyl chloride membrane filter in the filter cassette;

(c) Assemble the calibration sampling train;

(d) Connect the wet test meter to the train.

The pointer on the meter should run clockwise and a pressure drop of not more than 1.0 inch of water indicated. If the pressure drop is greater than 1.0, disconnect and check the system;

(e) Operate the system for ten minutes before starting the calibration;

(f) Check the vacuum gauge on the pump to insure that the pressure drop across the orifice exceeds seventeen inches of mercury;

(g) Record the following on calibration data sheets:

(i) Wet test meter reading, start and finish;

(ii) Elapsed time, start and finish (at least two minutes);

(iii) Pressure drop at manometer;

(iv) Air temperature;

(v) Barometric pressure; and

(vi) Limiting orifice number.

(h) Calculate the flow rate and compare against the flow of  $7.4 \pm 0.2$  liters/minute. If flow is between these limits, perform calibration again, average results, and record orifice number and flow rate. If flow is not within these limits, discard or modify orifice and repeat procedure;

(i) Record the name of the person performing the calibration, the date, serial number of the wet test meter, and the number of the critical orifices being calibrated.

(4) Sampling procedure.

(a) Sampling data sheets should include a log of:

(i) The date of the sample collection;

(ii) The time of sampling;

(iii) The location of the sampler;

(iv) The sampler serial number;

(v) The cassette number;

(vi) The time of starting and stopping the sampling and the duration of sampling;

(vii) The weight of the filter before and after sampling;

(viii) The weight of dust collected (corrected for controls);

(ix) The dust concentration measured;

(x) Other pertinent information; and

(xi) Name of person taking sample.

(b) Assembly of filter cassette should be as follows:

(i) Loosely assemble three-piece cassette;

(ii) Number cassette;

(iii) Place absorbent pad in cassette;

(iv) Weigh filter to an accuracy of 10 µg;

(v) Place filter in cassette;

(vi) Record weight of filter in log, using cassette number for identification;

(vii) Fully assemble cassette, using pressure to force parts tightly together;

(viii) Install plugs top and bottom;

(ix) Put shrink band on cassette, covering joint between center and bottom parts of cassette; and

(x) Set cassette aside until shrink band dries thoroughly.

(c) Sampling collection should be performed as follows:

(i) Clean lint out of the motor and elutriator;

(ii) Install vertical elutriator in sampling locations specified above with inlet 4-1/2 to 5-1/2 feet from floor (breathing zone height);

(iii) Remove top section of cassette;

- (iv) Install cassette in ferrule of elutriator;
- (v) Tape cassette to ferrule with masking tape or similar material for air-tight seal;
- (vi) Remove bottom plug of cassette and attach hose containing critical orifice;
- (vii) Start elutriator pump and check to see if gauge reads above 17 in. of Hg vacuum;
- (viii) Record starting time, cassette number, and sampler number;
- (ix) At end of sampling period stop pump and record time; and
- (x) Controls with each batch of samples collected, two additional filter cassettes should be subjected to exactly the same handling as the samples, except that they are not opened. These control filters should be weighed in the same manner as the sample filters.

Any difference in weight in the control filters would indicate that the procedure for handling sample filters may not be adequate and should be evaluated to ascertain the cause of the difference, whether and what necessary corrections must be made, and whether additional samples must be collected.

(d) Shipping. The cassette with samples should be collected, along with the appropriate number of blanks, and shipped to the analytical laboratory in a suitable container to prevent damage in transit.

(e) Weighing of the sample should be achieved as follows:

- (i) Remove shrink band;
  - (ii) Remove top and middle sections of cassette and bottom plug;
  - (iii) Remove filter from cassette and weigh to an accuracy of 10  $\mu\text{g}$ ; and
  - (iv) Record weight in log against original weight.
- (f) Calculation of volume of air sampled should be determined as follows:

(i) From starting and stopping times of sampling period, determine length of time in minutes of sampling period; and

(ii) Multiply sampling time in minutes by flow rate of critical orifice in liters per minute and divide by 1000 to find air quantity in cubic meters.

(g) Calculation of dust concentrations should be made as follows:

(i) Subtract weight of clean filter from dirty filter and apply control correction to find actual weight of sample. Record this weight (in  $\mu\text{g}$ ) in log; and

(ii) Divide mass of sample in  $\mu\text{g}$  by air volume in cubic meters to find dust concentration in  $\mu\text{g}/\text{m}$ . Record in log.

AMENDATORY SECTION (Amending WSR 88-14-108, filed 7/6/88)

**WAC 296-62-14541 Appendix D—Pulmonary function standards for cotton dust standard.** The spirometric measurements of pulmonary function ~~((shall))~~ **must** conform to the following minimum standards, and these standards are not intended to preclude additional testing or alternate methods which can be determined to be superior.

**(1) Apparatus.**

(a) The instrument ~~((shall))~~ **must** be accurate to within  $\pm 50$  milliliters or within  $\pm 3$  percent of reading, whichever is greater.

(b) The instrument should be capable of measuring vital capacity from 0 to 7 liters BTPS.

(c) The instrument ~~((shall))~~ **must** have a low inertia and offer low resistance to airflow such that the resistance to airflow at 12 liters per second must be less than 1.5 cm.  $\text{H}_2\text{O}/\text{liter}/\text{sec}$ .

(d) The zero time point for the purpose of timing the  $\text{FEV}_1$  ~~((shall))~~ **must** be determined by extrapolating the steepest portion of the volume time curve back to the maximal inspiration volume (1, 2, 3, 4) or by an equivalent method.

(e) Instruments incorporating measurements of airflow to determine volume ~~((shall))~~ **must** conform to the same volume accuracy stated in (a) of this subsection when presented with flow rates from at least 0 to 12 liters per second.

(f) The instrument or user of the instrument must have means of correcting volumes to a body temperature saturated with water vapor (BTPS) under conditions of varying ambient spirometer temperatures and barometric pressures.

(g) The instrument used ~~((shall))~~ **must** provide a tracing or display of either flow versus volume or volume versus time during the entire forced expiration. A tracing or display is necessary to determine whether the patient has performed the test properly. The tracing must be stored and available for recall and must be of sufficient size that hand measurements may be made within requirement of (a) of this subsection. If a paper record is made it must have a paper speed of at least 2 cm/sec and a volume sensitivity of at least 10.0 mm of chart per liter of volume.

(h) The instrument ~~((shall))~~ **must** be capable of accumulating volume for a minimum of ten seconds and ~~((shall))~~ **must** not stop accumulating volume before (i) the volume change for a 0.5 second interval is less than 25 milliliters or (ii) the flow is less than 50 milliliters per second for a 0.5 second interval.

(i) The forced vital capacity (FVC) and forced expiratory volume in 1 second  $\text{FEV}_{1.0}$  measurements ~~((shall))~~ **must** comply with the accuracy requirements stated in (a) of this subsection. That is, they should be accurately measured to within  $\pm 50$  ml or within  $\pm 3$  percent of reading, whichever is greater.

(j) The instrument must be capable of being calibrated in the field with respect to the  $\text{FEV}_1$  and FVC. This calibration of the  $\text{FEV}_1$  and FVC may be either directly or indirectly through volume and time base measurements. The volume calibration source should provide a volume displacement of at least 2 liters and should be accurate to within  $\pm 30$  milliliters.

**(2) Technique for measurement of forced vital capacity maneuver.**

(a) Use of a nose clip is recommended but not required. The procedures ~~((shall))~~ **must** be explained in simple terms to the patient who ~~((shall))~~ **must** be instructed to loosen any tight clothing and stand in front of the apparatus. The subject may sit, but care should be taken on repeat testing that same position be used and, if possible, the same spirometer. Partic-

ular attention ~~((shall))~~ must be given to insure that the chin is slightly elevated with the neck slightly extended. The patient ~~((shall))~~ must be instructed to make a full inspiration from a normal breathing pattern and then blow into the apparatus, without interruption, as hard, fast, and completely as possible. At least three forced expirations ~~((shall))~~ must be carried out. During the maneuvers, the patient ~~((shall))~~ must be observed for compliance with instructions. The expirations ~~((shall))~~ must be checked visually for reproducibility from flow-volume or volume-time tracings or displays. The following efforts ~~((shall))~~ must be judged unacceptable when the patient:

- (i) Has not reached full inspiration preceding the forced expiration,
- (ii) Has not used maximal effort during the entire forced expiration,
- (iii) Has not continued the expiration for at least 5 seconds or until an obvious plateau in the volume time curve has occurred,
- (iv) Has coughed or closed his glottis,
- (v) Has an obstructed mouthpiece or a leak around the mouthpiece (obstruction due to tongue being placed in front of mouthpiece, false teeth falling in front of mouthpiece, etc.),
- (vi) Has an unsatisfactory start of expiration, one characterized by excessive hesitation (or false starts), and therefore not allowing back extrapolation of time 0 (extrapolated volume on the volume time tracing must be less than 10 percent of the FVC),
- (vii) Has an excessive variability between the three acceptable curves. The variation between the two largest FVC's and FEV<sub>1</sub>'s of the three satisfactory tracings should not exceed ten percent or  $\pm$  100 milliliters, whichever is greater.

(b) Periodic and routine recalibration of the instrument or method for recording FVC and FEV<sub>1.0</sub> should be performed using a syringe or other volume source of at least 2 liters.

### (3) Interpretation of spirogram.

(a) The first step in evaluating a spirogram should be to determine whether or not the patient has performed the test properly or as described in subsection (2) of this section. From the three satisfactory tracings, the forced vital capacity (FVC) and forced expiratory volume in one second (FEV<sub>1.0</sub>) ~~((shall))~~ must be measured and recorded. The largest observed FVC and largest observed FEV<sub>1.0</sub> ~~((shall))~~ must be used in the analysis regardless of the curve(s) on which they occur.

(b) The following guidelines are recommended by NIOSH for the evaluation and management of workers exposed to cotton dust. It is important to note that employees who show reductions in FEV<sub>1</sub>/FVC ratio below .75 or drops in Monday FEV<sub>1</sub> of five percent or greater on their initial screening exam, should be reevaluated within a month of the first exam. Those who show consistent decrease in lung function, as shown on the following table, should be managed as recommended.

### (4) Qualifications of personnel administering the test.

Technicians who perform pulmonary function testing should have the basic knowledge required to produce meaningful results. Training consisting of approximately sixteen hours of formal instruction should cover the following areas.

- (a) Basic physiology of the forced vital capacity maneuver and the determinants of airflow limitation with emphasis on the relation to reproducibility of results.
- (b) Instrumentation requirements including calibration procedures, sources of error and their correction.
- (c) Performance of the testing including subject coaching, recognition of improperly performed maneuvers and corrective actions.
- (d) Data quality with emphasis on reproducibility.
- (e) Actual use of the equipment under supervised conditions.
- (f) Measurement of tracings and calculations of results.

AMENDATORY SECTION (Amending Order 77-14, filed 7/25/77)

**WAC 296-62-20001 Definitions.** For the purpose of this section:

~~((1))~~ **Authorized person.**<sup>(1)</sup> Any person specifically authorized by the employer whose duties require the person to enter a regulated area, or any person entering such an area as a designated representative of employees for the purpose of exercising the opportunity to observe monitoring and measuring procedures under WAC 296-62-20025.

~~((2))~~ **Beehive oven.**<sup>(2)</sup> A coke oven in which the products of carbonization other than coke are not recovered, but are released into the ambient air.

~~((3))~~ **Coke oven.**<sup>(3)</sup> A retort in which coke is produced by the destructive distillation or carbonization of coal.

~~((4))~~ **Coke oven battery.**<sup>(4)</sup> A structure containing a number of slot-type coke ovens.

~~((5))~~ **Coke oven emissions.**<sup>(5)</sup> The benzenesoluble fraction of total particulate matter present during the destructive distillation or carbonization of coal for the production of coke.

~~((6))~~ **Director.**<sup>(6)</sup> The director of the department of labor and industries or ~~((his or her))~~ their authorized representative.

~~((7))~~ **Emergency.**<sup>(7)</sup> Any occurrence such as, but not limited to, equipment failure which is likely to, or does, result in any massive release of coke oven emissions.

~~((8))~~ **Existing coke oven battery.**<sup>(8)</sup> A battery in operation or under construction on January 20, 1977, and which is not rehabilitated.

~~((9))~~ **Green push.** Coke which when removed from the oven results in emissions due to the presence of unvolatilized coal.

**Pipeline charging.** Any apparatus used to introduce coal into an oven which uses a pipe or duct permanently mounted onto an oven and through which coal is charged.

**Rehabilitated coke oven battery.**<sup>(9)</sup> A battery which is rebuilt, overhauled, renovated, or restored such as from the pad up, after January 20, 1977.

~~((10))~~ **Sequential charging.** A procedure, usually automatically timed, by which a predetermined volume of

coal in each larry car hopper is introduced into an oven such that no more than two hoppers commence or finish discharging simultaneously although, at some point, all hoppers are discharging simultaneously.

**Stage charging.**<sup>(11)</sup> A procedure by which a predetermined volume of coal in each larry car hopper is introduced into an oven such that no more than two hoppers are discharging simultaneously.

~~((11) "Sequential charging." A procedure, usually automatically timed, by which a predetermined volume of coal in each larry car hopper is introduced into an oven such that no more than two hoppers commence or finish discharging simultaneously although, at some point, all hoppers are discharging simultaneously.~~

(12) "Pipeline charging." Any apparatus used to introduce coal into an oven which uses a pipe or duct permanently mounted onto an oven and through which coal is charged.

(13) "Green push." Coke which when removed from the oven results in emissions due to the presence of unvolatized coal.)

AMENDATORY SECTION (Amending Order 77-14, filed 7/25/77)

**WAC 296-62-2003 Permissible exposure limit.** The employer ~~((shall assure))~~ must ensure that no employee is exposed to coke oven emissions at concentrations greater than 150 micrograms per cubic meter of air (150 ug/m<sup>3</sup>), averaged over any 8-hour period.

AMENDATORY SECTION (Amending Order 77-14, filed 7/25/77)

**WAC 296-62-2005 Regulated areas.** (1) The employer ~~((shall))~~ must establish regulated areas and ~~((shall))~~ must limit access to them to authorized persons.

(2) The employer ~~((shall))~~ must establish the following as regulated areas:

(a) The coke oven battery including topside and its machinery, pushside and its machinery, coke side and its machinery, and the battery ends; the wharf; and the screening station;

(b) The beehive oven and its machinery.

AMENDATORY SECTION (Amending Order 77-14, filed 7/25/77)

**WAC 296-62-2007 Exposure monitoring and measurement.** (1) Monitoring program.

(a) Each employer who has a place of employment where coke oven emissions are present ~~((shall))~~ must monitor employees employed in the regulated area to measure their exposure to coke oven emissions.

(b) The employer ~~((shall))~~ must obtain measurements which are representative of each employee's exposure to coke oven emissions over an eight-hour period. All measurements ~~((shall))~~ must determine exposure without regard to the use of respiratory protection.

(c) The employer ~~((shall))~~ must collect full-shift (for at least seven continuous hours) personal samples, including at least one sample during each shift for each battery and each

job classification within the regulated areas including at least the following job classifications:

- (i) Lidman;
- (ii) Tar chaser;
- (iii) Larry car operator;
- (iv) Luterman;
- (v) Machine operator, coke side;
- (vi) Benchman, coke side;
- (vii) Benchman, pusher side;
- (viii) Heater;
- (ix) Quenching car operator;
- (x) Pusher machine operator;
- (xi) Screening station operator;
- (xii) Wharfman;
- (xiii) Oven patcher;
- (xiv) Oven repairman;
- (xv) Spellman; and
- (xvi) Maintenance personnel.

(d) The employer ~~((shall))~~ must repeat the monitoring and measurements required by subsection (1) of this section at least every three months.

(2) Redetermination. Whenever there has been a production, process, or control change which may result in new or additional exposure to coke oven emissions, or whenever the employer has any other reason to suspect an increase in employee exposure, the employer ~~((shall))~~ must repeat the monitoring and measurements required by subsection (1) of this section for those employees affected by such change or increase.

(3) Employee notification.

(a) The employer ~~((shall))~~ must notify each employee in writing of the exposure measurements which represent that employee's exposure within five working days after the receipt of the results of measurements required by subsection (1) and (2) of this section.

(b) Whenever such results indicate that the representative employee exposure exceeds the permissible exposure limit, the employer ~~((shall))~~ must, in such notification, inform each employee of that fact and of the corrective action being taken to reduce exposure to or below the permissible exposure limit.

(4) Accuracy of measurement. The employer ~~((shall))~~ must use a method of monitoring and measurement which has an accuracy (with a confidence level of 95%) of not less than plus or minus 35% for concentrations of coke oven emissions greater than or equal to 150 Ug/m<sup>3</sup>.

AMENDATORY SECTION (Amending WSR 88-23-054, filed 11/14/88)

**WAC 296-62-2009 Methods of compliance.** The employer ~~((shall))~~ must control employee exposure to coke oven emissions by the use of engineer controls, work practices and respiratory protection as follows:

(1) Priority of compliance methods.

(a) Existing coke oven batteries.

(i) The employer ~~((shall))~~ must institute the engineer and work practice controls listed in subsections (2), (3) and (4) of this section in existing coke oven batteries at the earliest possible time, but not later than January 20, 1980, except to the

extent that the employer can establish that such controls are not feasible. In determining the earliest possible time for institution of engineer and work practice controls, the requirement, effective August 27, 1971, to implement feasible administrative or engineer controls to reduce exposures to coal tar pitch volatiles, ~~((shall))~~ must be considered. Whenever the engineer and work practice controls which can be instituted are not sufficient to reduce employee exposures to or below the permissible exposure limit, the employer ~~((shall))~~ must nonetheless use them to reduce exposures to the lowest level achievable by these controls and ~~((shall))~~ must supplement them by the use of respiratory protection which complies with the requirements of WAC 296-62-20011.

(ii) The engineer and work practice controls required under subsections (2), (3) and (4) of this section are minimum requirements generally applicable to all existing coke oven batteries. If, after implementing all controls required by subsections (2), (3) and (4) of this section, or after January 20, 1980, whichever is sooner, employee exposures still exceed the permissible exposure limit, employers ~~((shall))~~ must implement any other engineer and work practice controls necessary to reduce exposure to or below the permissible exposure limit except to the extent that the employer can establish that such controls are not feasible. Whenever the engineer and work practice controls which can be instituted are not sufficient to reduce employee exposures to or below the permissible exposure limit, the employer ~~((shall))~~ must nonetheless use them to reduce exposures to the lowest level achievable by these controls and ~~((shall))~~ must supplement them by the use of respiratory protection which complies with the requirements of WAC 296-62-20011.

(b) New or rehabilitated coke oven batteries.

(i) The employer ~~((shall))~~ must institute the best available engineer and work practice controls on all new or rehabilitated coke oven batteries to reduce and maintain employee exposures at or below the permissible exposure limit, except to the extent that the employer can establish that such controls are not feasible. Whenever the engineer and work practice controls which can be instituted are not sufficient to reduce employee exposures to or below the permissible exposure limit, the employer ~~((shall))~~ must nonetheless use them to reduce exposures to the lowest level achievable by these controls and ~~((shall))~~ must supplement them by the use of respiratory protection which complies with the requirements of WAC 296-62-20011.

(ii) If, after implementing all the engineer and work practice controls required by (b)(i) of this subsection, employee exposures still exceed the permissible exposure limit, the employer ~~((shall))~~ must implement any other engineer and work practice controls necessary to reduce exposure to or below the permissible exposure limit except to the extent that the employer can establish that such controls are not feasible. Whenever the engineer and work practice controls which can be instituted are not sufficient to reduce employee exposures to or below the permissible exposure limit, the employer ~~((shall))~~ must nonetheless use them to reduce exposures to the lowest level achievable by these controls and ~~((shall))~~ must supplement them by the use of respiratory protection

which complies with the requirements of WAC 296-62-20011.

(c) Beehive ovens.

(i) The employer ~~((shall))~~ must institute engineer and work practice controls on all beehive ovens at the earliest possible time to reduce and maintain employee exposures at or below the permissible exposure limit, except to the extent that the employer can establish that such controls are not feasible. In determining the earliest possible time for institution of engineer and work practice controls, the requirement, effective August 27, 1971, to implement feasible administrative or engineer controls to reduce exposures to coal tar pitch volatiles, ~~((shall))~~ must be considered. Whenever the engineer and work practice controls which can be instituted are not sufficient to reduce employee exposures to or below the permissible exposure limit, the employer ~~((shall))~~ must nonetheless use them to reduce exposures to the lowest level achievable by these controls and ~~((shall))~~ must supplement them by the use of respiratory protection which complies with the requirements of WAC 296-62-20011.

(ii) If, after implementing all engineer and work practice controls required by (c)(i) of this subsection, employee exposures still exceed the permissible exposure limit, the employer ~~((shall))~~ must implement any other engineer and work practice controls necessary to reduce exposures to or below the permissible exposure limit except to the extent that the employer can establish that such controls are not feasible. Whenever the engineer and work practice controls which can be instituted are not sufficient to reduce employee exposures to or below the permissible exposure limit, the employer ~~((shall))~~ must nonetheless use them to reduce exposures to the lowest level achievable by these controls and ~~((shall))~~ must supplement them by the use of respiratory protection which complies with the requirements of WAC 296-62-20011.

(2) Engineer controls.

(a) Charging. The employer ~~((shall))~~ must equip and operate existing coke oven batteries with all of the following engineer controls to control coke oven emissions during charging operations:

(i) One of the following methods of charging:

(A) Stage charging as described in subsection (3)(a)(ii) of this section; or

(B) Sequential charging as described in subsection (3)(a)(ii) of this section except that subsection (3)(a)(ii) and (3)(d) of this section does not apply to sequential charging; or

(C) Pipeline charging or other forms of enclosed charging in accordance with (a) of this subsection, except (a)(ii), (iv), (v), (vi) and (viii) of this subsection do not apply.

(ii) Drafting from two or more points in the oven being charged, through the use of double collector mains, or a fixed or moveable jumper pipe system to another oven, to effectively remove the gases from the oven to the collector mains;

(iii) Aspiration systems designed and operated to provide sufficient negative pressure and flow volume to effectively move the gases evolved during charging into the collector mains, including sufficient steam pressure, and steam jets of sufficient diameter;

(iv) Mechanical volumetric controls on each larry car hopper to provide the proper amount of coal to be charged

through each charging hole so that the tunnel head will be sufficient to permit the gases to move from the oven into the collector mains;

(v) Devices to facilitate the rapid and continuous flow of coal into the oven being charged, such as stainless steel liners, coal vibrators or pneumatic shells;

(vi) Individually operated larry car drop sleeves and slide gates designed and maintained so that the gases are effectively removed from the oven into the collector mains;

(vii) Mechanized gooseneck and standpipe cleaners;

(viii) Air seals on the pusher machine leveler bars to control air infiltration during charging; and

(ix) Roof carbon cutters or a compressed air system or both on the pusher machine rams to remove roof carbon.

(b) Coking. The employer (~~shall~~) must equip and operate existing coke oven batteries with all of the following engineer controls to control coke oven emissions during coking operations:

(i) A pressure control system on each battery to obtain uniform collector main pressure;

(ii) Ready access to door repair facilities capable of prompt and efficient repair of doors, door sealing edges and all door parts;

(iii) An adequate number of spare doors available for replacement purposes;

(iv) Chuck door gaskets to control chuck door emissions until such door is repaired, or replaced; and

(v) Heat shields on door machines.

(3) Work practice controls.

(a) Charging. The employer (~~shall~~) must operate existing coke oven batteries with all of the following work practices to control coke oven emissions during the charging operation:

(i) Establishment and implementation of a detailed, written inspection and cleaning procedure for each battery consisting of at least the following elements:

(A) Prompt and effective repair or replacement of all engineer controls;

(B) Inspection and cleaning of goosenecks and standpipes prior to each charge to a specified minimum diameter sufficient to effectively move the evolved gases from the oven to the collector mains;

(C) Inspection for roof carbon build-up prior to each charge and removal of roof carbon as necessary to provide an adequate gas channel so that the gases are effectively moved from the oven into the collector mains;

(D) Inspection of the steam aspiration system prior to each charge so that sufficient pressure and volume is maintained to effectively move the gases from the oven to the collector mains;

(E) Inspection of steam nozzles and liquor sprays prior to each charge and cleaning as necessary so that the steam nozzles and liquor sprays are clean;

(F) Inspection of standpipe caps prior to each charge and cleaning and luting or both as necessary so that the gases are effectively moved from the oven to the collector mains; and

(G) Inspection of charging holes and lids for cracks, warpage and other defects prior to each charge and removal of carbon to prevent emissions, and application of luting

material to standpipe and charging hole lids where necessary to obtain a proper seal.

(ii) Establishment and implementation of a detailed written charging procedure, designed and operated to eliminate emissions during charging for each battery, consisting of at least the following elements:

(A) Larry car hoppers filled with coal to a predetermined level in accordance with the mechanical volumetric controls required under subsection (2)(a)(iv) of this section so as to maintain a sufficient gas passage in the oven to be charged;

(B) The larry car aligned over the oven to be charged, so that the drop sleeves fit tightly over the charging holes; and

(C) The oven charged in accordance with the following sequence of requirements:

(I) The aspiration system turned on;

(II) Coal charged through the outermost hoppers, either individually or together, depending on the capacity of the aspiration system to collect the gases involved;

(III) The charging holes used under (a)(ii) and (b) of this subsection relidged or otherwise sealed off to prevent leakage of coke oven emissions;

(IV) If four hoppers are used, the third hopper discharged and relidged or otherwise sealed off to prevent leakage of coke oven emissions;

(V) The final hopper discharged until the gas channel at the top of the oven is blocked and then the chuck door opened and the coal leveled;

(VI) When the coal from the final hopper is discharged and the leveling operation complete, the charging hole relidged or otherwise sealed off to prevent leakage of coke oven emissions; and

(VII) The aspiration system turned off only after the charging holes have been closed.

(VIII) Establishment and implementation of a detailed written charging procedure, designed and operated to eliminate emissions during charging of each pipeline or enclosed charged battery.

(b) Coking. The employer (~~shall~~) must operate existing coke oven batteries pursuant to a detailed written procedure established and implemented for the control of coke oven emissions during coking, consisting of at least the following elements:

(i) Checking oven back pressure controls to maintain uniform pressure conditions in the collecting main;

(ii) Repair, replacement and adjustment of oven doors and check doors and replacement of door jambs so as to provide a continuous metal-to-metal fit;

(iii) Cleaning of oven doors, chuck doors and door jambs each coking cycle so as to provide an effective seal;

(iv) An inspection system and corrective action program to control door emissions to the maximum extent possible; and

(v) Luting of doors that are sealed by luting each coking cycle and reluting, replacing or adjusting as necessary to control leakage.

(c) Pushing. The employer (~~shall~~) must operate existing coke oven batteries with the following work practices to control coke oven emissions during pushing operations:

(i) Coke and coal spillage quenched as soon as practicable and not shoveled into a heated oven; and

(ii) A detailed written procedure for each battery established and implemented for the control of emissions during pushing consisting of the following elements:

(A) Dampering off the ovens and removal of charging hole lids to effectively control coke oven emissions during the push;

(B) Heating of the coal charge uniformly for a sufficient period so as to obtain proper coking including preventing green pushes;

(C) Prevention of green pushes to the maximum extent possible;

(D) Inspection, adjustment and correction of heating flue temperatures and defective flues at least weekly and after any green push, so as to prevent green pushes;

(E) Cleaning of heating flues and related equipment to prevent green pushes, at least weekly and after any green push.

(d) Maintenance and repair. The employer ~~((shall))~~ must operate existing coke oven batteries pursuant to a detailed written procedure of maintenance and repair established and implemented for the effective control of coke oven emissions consisting of the following elements:

(i) Regular inspection of all controls, including goose-necks, standpipes, standpipe caps, charging hole lids and castings, jumper pipes and air seals for cracks, misalignment or other defects and prompt implementation of the necessary repairs as soon as possible;

(ii) Maintaining the regulated area in a neat, orderly condition free of coal and coke spillage and debris;

(iii) Regular inspection of the damper system, aspiration system and collector main for cracks or leakage, and prompt implementation of the necessary repairs;

(iv) Regular inspection of the heating system and prompt implementation of the necessary repairs;

(v) Prevention of miscellaneous fugitive topside emissions;

(vi) Regular inspection and patching of over brickwork;

(vii) Maintenance of battery equipment and controls in good working order;

(viii) Maintenance and repair of coke oven doors, chuck doors, door jambs and seals; and

(ix) Repairs instituted and completed as soon as possible, including temporary repair measures instituted and completed where necessary, including but not limited to:

(A) Prevention of miscellaneous fugitive topside emissions; and

(B) Chuck door gaskets, which ~~((shall))~~ must be installed prior to the start of the next coking cycle.

(4) Filtered air.

(a) The employer ~~((shall))~~ must provide positive-pressure, temperature controlled filtered air for larry car, pusher machine, door machine, and quench car cabs.

(b) The employer ~~((shall))~~ must provide standby pulpits on the battery topside, at the wharf, and at the screening station, equipped with positive-pressure, temperature controlled filtered air.

(5) Emergencies. Whenever an emergency occurs, the next coking cycle may not begin until the cause of the emergency is determined and corrected, unless the employer can

establish that it is necessary to initiate the next coking cycle in order to determine the cause of the emergency.

(6) Compliance program.

(a) Each employer ~~((shall))~~ must establish and implement a written program to reduce exposures solely by means of the engineer and work practice controls specified in subsections (2) through (4) of this section.

(b) The written program ~~((shall))~~ must include at least the following:

(i) A description of each coke oven operation by battery, including work force and operating crew, coking time, operating procedures and maintenance practices;

(ii) Engineer plans and other studies used to determine the controls for the coke battery;

(iii) A report of the technology considered in meeting the permissible exposure limit;

(iv) Monitoring data obtained in accordance with WAC 296-62-20007.

(v) A detailed schedule for the implementation of the engineer and work practice controls specified in subsections (2) through (4) of this section; and

(vi) Other relevant information.

(c) If, after implementing all controls required by subsections (2) through (4) of this section, or after January 20, 1980, whichever is sooner, or after completion of a new or rehabilitated battery the permissible exposure limit is still exceeded, the employer ~~((shall))~~ must develop a detailed written program and schedule for the implementation of any additional engineer controls and work practices necessary to reduce exposure to or below the permissible exposure limit.

(d) Written plans for such programs ~~((shall))~~ must be submitted, upon request, to the director, and ~~((shall))~~ must be available at the worksite for examination and copying by the director, and the authorized employee representative. The plans required under this subsection ~~((shall))~~ must be revised and updated at least every six months to reflect the current status of the program.

(7) Training in compliance procedures. The employer ~~((shall))~~ must incorporate all written procedures and schedules required under this section in the education and training program required under WAC 296-62-20019 and, where appropriate, post in the regulated area.

AMENDATORY SECTION (Amending WSR 01-11-038, filed 5/9/01, effective 9/1/01)

**WAC 296-62-20013 Protective clothing and equipment.** (1) Provision and Use. The employer ~~((shall))~~ must provide and ~~((assure))~~ ensure the use of appropriate protective clothing and equipment, such as but not limited to:

(a) Flame resistant jacket and pants;

(b) Flame resistant gloves;

(c) Face shields or vented goggles which comply with WAC 296-800-160;

(d) Footwear providing insulation from hot surfaces;

(e) Safety shoes which comply with WAC 296-800-160; and

(f) Protective helmets which comply with WAC 296-800-160.

## (2) Cleaning and Replacement.

(a) The employer (~~(shall)~~) must provide the protective clothing required by subsection (1)(a) and (b) of this section in a clean and dry condition at least weekly.

(b) The employer (~~(shall)~~) must clean, launder, or dispose of protective clothing required by subsection ~~((s))~~ (1)(a) and (b) of this section.

(c) The employer (~~(shall)~~) must repair or replace the protective clothing and equipment as needed to maintain their effectiveness.

(d) The employer (~~(shall assure))~~) must ensure that all protective clothing is removed at the completion of a work shift only in change rooms prescribed in WAC 296-62-20015.

(e) The employer (~~(shall assure))~~) must ensure that contaminated protective clothing which is to be cleaned, laundered, or disposed of, is placed in a closed container in the changeroom.

(f) The employer (~~(shall)~~) must inform any person who cleans or launders protective clothing required by this section, of the potentially harmful effects of exposure to coke oven emissions.

AMENDATORY SECTION (Amending WSR 03-18-090, filed 9/2/03, effective 11/1/03)

**WAC 296-62-20015 Hygiene facilities and practices.**

(1) Change rooms. The employer (~~(shall)~~) must provide clean change rooms equipped with storage facilities for street clothes and separate storage facilities for protective clothing and equipment whenever employees are required to wear protective clothing and equipment in accordance with WAC 296-62-20013.

## (2) Showers.

(a) The employer (~~(shall assure))~~) must ensure that employees working in the regulated area shower at the end of the work shift.

(b) The employer (~~(shall)~~) must provide shower facilities in accordance with WAC 296-800-230.

(3) Lunchrooms. The employer (~~(shall)~~) must provide lunchroom facilities which have a temperature controlled, positive pressure, filtered air supply, and which are readily accessible to employees working in the regulated area.

## (4) Lavatories.

(a) The employer (~~(shall assure))~~) must ensure that employees working in the regulated area wash their hands and face prior to eating.

(b) The employer (~~(shall)~~) must provide lavatory facilities in accordance with WAC 296-800-230.

## (5) Prohibition of activities in the regulated area.

(a) The employer (~~(shall assure))~~) must ensure that in the regulated area, food or beverages are not present or consumed, smoking products are not present or used, and cosmetics are not applied, except, that these activities may be conducted in the lunchrooms, change rooms and showers required under subsections ~~((+)-(3))~~ (1) through (3) of this section.

(b) Drinking water may be consumed in the regulated area.

AMENDATORY SECTION (Amending WSR 99-17-094, filed 8/17/99, effective 12/1/99)

**WAC 296-62-20017 Medical surveillance.** (1) General requirements.

(a) Each employer (~~(shall)~~) must institute a medical surveillance program for all employees who are employed in the regulated areas at least 30 days per year.

(b) This program (~~(shall)~~) must provide each employee covered under subsection (1)(a) of this section with an opportunity for medical examinations in accordance with this section.

(c) The employer (~~(shall)~~) must inform any employee who refuses any required medical examination of the possible health consequences of such refusal and (~~(shall)~~) must obtain a signed statement from the employee indicating that the employee understands the risk involved in the refusal to be examined.

(d) The employer (~~(shall assure))~~) must ensure that all medical examinations and procedures are performed by or under the supervision of a licensed physician, and are provided without cost to the employee.

(2) Initial examinations. At the time of initial assignment to a regulated area or upon the institution of the medical surveillance program, the employer (~~(shall)~~) must provide a medical examination including at least the following elements:

(a) A work history and medical history which (~~(shall)~~) must include smoking history and the presence and degree of respiratory symptoms, such as breathlessness, cough, sputum production, and wheezing;

(b) A 14" x 17" posterior-anterior chest X-ray and International Labour Office UICC/Cincinnati (ILO U/C) rating;

(c) Pulmonary function tests including forced vital capacity (FVC) and forced expiratory volume at one second (FEV 1.0) with recording of type of equipment used;

(d) Weight;

(e) A skin examination;

(f) Urinalysis for sugar, albumin, and hematuria; and

(g) A urinary cytology examination.

## (3) Periodic examinations.

(a) The employer (~~(shall)~~) must provide the examinations specified in subsection ~~((s)-(2)(a)-(f))~~ (2)(a) through (f) of this section at least annually for employees covered under subsection (1)(a) of this section.

(b) The employer (~~(shall)~~) must provide the examinations specified in subsection (2)(a) and ~~((e)-(g))~~ (c) through (g) of this section at least semi-annually for employees forty-five years of age or older or with five or more years employment in the regulated area.

(c) Whenever an employee who is forty-five years of age or older or with five or more years employment in the regulated area transfers or is transferred from employment in a regulated area, the employer (~~(shall)~~) must continue to provide the examinations specified in subsection ~~((s))~~ (2)(a) and ~~((e)-(g))~~ (c) through (g) of this section semi-annually, as long as that employee is employed by the same employer or a successor employer.

(d) The employer (~~(shall)~~) must provide the X-ray specified in subsection (2)(b) of this section at least annually for employees covered under this subsection.

(e) Whenever an employee has not taken the examination specified in subsection ~~((s)(3)(a)-(e))~~ (3)(a) through (c) of this section within the six months preceding the termination of employment, the employer ~~((shall))~~ must provide such examinations to the employee upon termination of employment.

(4) Information provided to the physician. The employer ~~((shall))~~ must provide the following information to the examining physician:

- (a) A copy of this regulation and its Appendixes;
- (b) A description of the affected employee's duties as they relate to the employee's exposure;
- (c) The employee's exposure level or anticipated exposure level;
- (d) A description of any personal protective equipment used or to be used; and
- (e) Information from previous medical examinations of the affected employee which is not readily available to the examining physician.

(5) Physician's written opinion.

(a) The employer ~~((shall))~~ must obtain a written opinion from the examining physician which shall include:

- (i) The results of the medical examinations;
- (ii) The physician's opinion as to whether the employee has any detected medical conditions which would place the employee at increased risk of material impairment of the employee's health from exposure to coke oven emissions;
- (iii) Any recommended limitations upon the employee's exposure to coke oven emissions or upon the use of protective clothing or equipment such as respirators; and
- (iv) A statement that the employee has been informed by the physician of the results of the medical examination and any medical conditions which require further explanation or treatment.

(b) The employer ~~((shall))~~ must instruct the physician not to reveal in the written opinion specific findings or diagnoses unrelated to occupational exposure.

(c) The employer ~~((shall))~~ must provide a copy of the written opinion to the affected employee.

AMENDATORY SECTION (Amending WSR 05-03-093, filed 1/18/05, effective 3/1/05)

**WAC 296-62-20019 Employee information and training.** (1) Training program.

(a) The employer ~~((shall))~~ must institute a training program for employees who are employed in the regulated area and shall assure their participation.

(b) The training program ~~((shall))~~ must be provided as of January 20, 1977, for employees who are employed in the regulated area at that time or at the time of initial assignment to a regulated area.

(c) The training program ~~((shall))~~ must be provided at least annually for all employees who are employed in the regulated area, except that training regarding the occupational safety and health hazards associated with exposure to coke oven emissions and the purpose, proper use, and limitations of respiratory protective devices ~~((shall))~~ must be provided at least quarterly until January 20, 1978.

(d) The training program ~~((shall))~~ must include informing each employee of:

(i) The information contained in the substance information sheet for coke oven emissions (Appendix A);

(ii) The purpose, proper use, and limitations of respiratory protective devices in addition to other information as required by chapter 296-842 WAC (see WAC 296-842-11005, 296-842-16005, and 296-842-19005).

(iii) The purpose for and a description of the medical surveillance program required by WAC 296-62-20017 including information on the occupational safety and health hazards associated with exposure to coke oven emissions;

(iv) A review of all written procedures and schedules required under WAC 296-62-20009; and

(v) A review of this standard.

(2) Access to training materials.

(a) The employer ~~((shall))~~ must make a copy of this standard and its appendixes readily available to all employees who are employed in the regulated area.

(b) The employer ~~((shall))~~ must provide all materials relating to the employee information and training program to the director.

AMENDATORY SECTION (Amending WSR 14-07-086, filed 3/18/14, effective 5/1/14)

**WAC 296-62-20021 Communication of hazards.** (1) Hazard communication - General. The employer ~~((shall))~~ must include coke oven emissions in the program established to comply with the Hazard Communication Standard (HCS), WAC 296-901-140. The employer ~~((shall))~~ must ensure that each employee has access to labels on containers of chemicals and substances associated with coke oven processes and to safety data sheets, and is trained in accordance with the provisions of HCS and WAC 296-62-20019. The employer ~~((shall))~~ must ensure that at least the following hazard is addressed: Cancer.

(2) Signs.

(a) The employer ~~((shall))~~ must post signs in the regulated area bearing the legends:

DANGER  
COKE OVEN EMISSIONS  
MAY CAUSE CANCER  
DO NOT EAT, DRINK OR SMOKE  
WEAR RESPIRATORY PROTECTION IN THIS AREA  
AUTHORIZED PERSONNEL ONLY

(b) In addition, the employer ~~((shall))~~ must post signs in the areas where the permissible exposure limit is exceeded bearing the legend:

WEAR RESPIRATORY PROTECTION IN THIS AREA

(c) The employer ~~((shall))~~ must ensure that no statement appears on or near any sign required by this section which contradicts or detracts from the effects of the required sign.

(d) The employer ~~((shall))~~ must ensure that signs required by this subsection are illuminated and cleaned as necessary so that the legend is readily visible.

~~((e) Prior to June 1, 2016, employers may use the following legend in lieu of that specified in (a) of this subsection:~~

DANGER  
CANCER HAZARD  
AUTHORIZED PERSONNEL ONLY  
NO SMOKING OR EATING

~~(f) Prior to June 1, 2016, employers may use the following legend in lieu of that specified in (b) of this subsection:~~

DANGER  
RESPIRATOR REQUIRED))

(3) Labels.

~~((a))~~ The employer ~~((shall))~~ must ensure that labels of contaminated protective clothing and equipment include the following information:

CONTAMINATED WITH COKE EMISSIONS  
MAY CAUSE CANCER  
DO NOT REMOVE DUST BY BLOWING OR SHAKING

~~((b) Prior to June 1, 2015, employers may include the following information on contaminated protective clothing and equipment in lieu of the labeling requirements in (a) of this subsection:~~

CAUTION  
CLOTHING CONTAMINATED WITH COKE  
EMISSIONS  
DO NOT REMOVE DUST BY BLOWING OR SHAKING))

AMENDATORY SECTION (Amending WSR 12-24-071, filed 12/4/12, effective 1/4/13)

**WAC 296-62-20023 Recordkeeping.** (1) Exposure measurements. The employer ~~((shall))~~ must establish and maintain an accurate record of all measurements taken to monitor employee exposure to coke oven emissions required in WAC 296-62-20007.

(a) This record ~~((shall))~~ must include:

- (i) Name, Social Security number, and job classification of the employees monitored;
- (ii) The date(s), number, duration and results of each of the samples taken, including a description of the sampling procedure used to determine representative employee exposure where applicable;
- (iii) The type of respiratory protective devices worn, if any;
- (iv) A description of the sampling and analytical methods used and evidence of their accuracy; and
- (v) The environment variables that could affect the measurement of employee exposure.

(b) The employer ~~((shall))~~ must maintain this record for at least forty years or for the duration of employment plus twenty years, whichever is longer.

(2) Medical surveillance. The employer ~~((shall))~~ must establish and maintain an accurate record for each employee subject to medical surveillance as required by WAC 296-62-20017.

(a) The record ~~((shall))~~ must include:

- (i) The name, Social Security number, and description of duties of the employee;
- (ii) A copy of the physician's written opinion;
- (iii) The signed statement of any refusal to take a medical examination under WAC 296-62-20017; and

(iv) Any employee medical complaints related to exposure to coke oven emissions.

(b) The employer ~~((shall))~~ must keep, or ~~((assure))~~ ensure that the examining physician keeps, the following medical records:

- (i) A copy of the medical examination results including medical and work history required under WAC 296-62-20017;
- (ii) A description of the laboratory procedures used and a copy of any standards or guidelines used to interpret the test results;
- (iii) The initial X-ray;
- (iv) The X-rays for the most recent five years;
- (v) Any X-ray with a demonstrated abnormality and all subsequent X-rays;
- (vi) The initial cytologic examination slide and written description;
- (vii) The cytologic examination slide and written description for the most recent ten years; and
- (viii) Any cytologic examination slides with demonstrated atypia, if such atypia persists for three years, and all subsequent slides and written descriptions.

(c) The employer ~~((shall))~~ must maintain medical records required under subsection (2) of this section for at least forty years, or for the duration of employment plus twenty years, whichever is longer.

(3) Availability.

(a) The employer ~~((shall))~~ must make available upon request all records required to be maintained by this section to the director for examination and copying.

(b) Employee exposure measurement records and employee medical records required by this subsection ~~((shall))~~ must be provided upon request to employees, designated representatives, and the assistant director in accordance with chapter 296-802 WAC.

(c) The employer ~~((shall))~~ must make available upon request employee medical records required to be maintained by subsection (2) of this section to a physician designated by the affected employee or former employee.

(4) Transfer of records.

(a) Whenever the employer ceases to do business, the successor employer ~~((shall))~~ must receive and retain all records required to be maintained by this section.

(b) The employer ~~((shall))~~ must also comply with any additional requirements involving transfer of records set forth in WAC 296-802-60005.

AMENDATORY SECTION (Amending Order 77-14, filed 7/25/77)

**WAC 296-62-20025 Observation of monitoring.** (1) Employee observation. The employer ~~((shall))~~ must provide affected employees or their representatives an opportunity to observe any measuring or monitoring of employee exposure to coke oven emissions conducted pursuant to WAC 296-62-20007.

(2) Observation procedures.

(a) Whenever observation of the measuring or monitoring of employee exposure to coke oven emissions requires entry into an area where the use of protective clothing or

equipment is required, the employer (~~(shall)~~) must provide the observer with and assure the use of such equipment and (~~(shall)~~) must require the observer to comply with all other applicable safety and health procedures.

(b) Without interfering with the measurement, observers shall be entitled to:

- (i) An explanation of the measurement procedures;
- (ii) Observe all steps related to the measurement of coke oven emissions performed at the place of exposure; and
- (iii) Record the results obtained.

**AMENDATORY SECTION** (Amending WSR 12-02-053, filed 1/3/12, effective 1/1/14)

**WAC 296-62-50005 Scope.** (1) This chapter applies to all employers in health care facilities regardless of the setting that have employees with occupational exposure to hazardous drugs.

(2) Chapter application.

(a) The requirements in this rule only apply to the hazardous drugs being used in the workplace.

(b) If hazardous drugs are being used in the workplace the requirements in this rule only apply if there is reasonably anticipated occupational exposure as defined in WAC 296-62-50010.

(c) If there is reasonably anticipated occupational exposure to one or more hazardous drugs, the employer must develop a hazardous drugs control program as required in section WAC 296-62-50015.

(d) For purposes of making the determinations in this section about scope and application, occupational exposure is that exposure which would be reasonably anticipated in the absence of engineering controls or PPE.

(3) The following lists jobs that may involve occupational exposure to hazardous drugs. This is not an exhaustive list and there may be other jobs that fall within the scope of this chapter:

- (\*) (a) Pharmacists and pharmacy technicians.
- (\*) (b) Physicians and physician assistants.
- (\*) (c) Nurses (ARNPs, RNs, LPNs).
- (\*) (d) Patient care assistive personnel (e.g., health care assistants, nursing assistants).
- (\*) (e) Operating room personnel.
- (\*) (f) Home health care workers.
- (\*) (g) Veterinarians and veterinary technicians.
- (\*) (h) Environmental services employees (e.g., house-keeping, laundry, and waste disposal) in health care facilities.
- (\*) (i) Employees in health care facilities who ship, or receive hazardous drugs from the manufacturer or distributor.

**AMENDATORY SECTION** (Amending WSR 16-10-083, filed 5/3/16, effective 6/3/16)

**WAC 296-62-50010 Definitions. Biological safety cabinet ((means)).** A ventilated cabinet for compounding pharmaceutical ingredients, personnel, product, and environmental protection having an open front with inward airflow for personnel protection, downward high-efficiency air (HEPA)-filtered laminar airflow for product protection, and HEPA-filtered exhausted air for environmental protection. For a complete description of the different types of biologic

safety cabinets see the Centers for Disease Control and Prevention (CDC)/National Institutes of Health (NIH) document *Primary Containment for Biohazards: Selection, Installation and Use of Biological Safety Cabinets*.

**Chemotherapy glove ((means)).** A medical glove that has been approved by the Food and Drug Administration (FDA) and that meets the permeability standards of the American Society for Testing Materials (ASTM) Standard D6978 - 05.

**Closed system drug-transfer device ((means)).** A drug-transfer device that mechanically prohibits the transfer of environmental contaminants into the system and the escape of hazardous drug or vapor concentrations outside of the system.

**Decontamination ((means)).** Inactivation, neutralization, or removal of toxic agents, usually by chemical means.

**Engineering controls ((means)).** Devices designed to eliminate or reduce worker exposure to hazards. Examples include biological safety cabinets, laboratory fume hoods, containment isolators, safer sharps devices, and safety interlocks.

**Hazardous drugs ((means)).** Any drug identified as hazardous by the National Institute for Occupational Safety and Health (NIOSH) at the Centers for Disease Control (CDC) or any drug that meets at least one of the following six criteria:

- ((\*) (a) Carcinogenicity.
- ((\*) (b) Teratogenicity or developmental toxicity.
- ((\*) (c) Reproductive toxicity in humans.
- ((\*) (d) Organ toxicity at low doses in humans or animals.
- ((\*) (e) Genotoxicity.
- ((\*) (f) New drugs that mimic existing hazardous drugs in structure and toxicity.

**Health care facilities ((means)).** All hospitals, clinics, nursing homes, laboratories, offices or similar places where a health care provider provides health care to patients. For purposes of this chapter this includes veterinary medicine, retail pharmacies, home health care agencies and also those research laboratories in settings where a health care provider provides health care to patients. It does not include the drug manufacturing sector or research laboratories where health care providers do not provide health care to patients.

**HEPA filter ((means)).** A high-efficiency particulate air filter rated 99.97% efficient in capturing 0.3-micron-diameter particles.

• **Isolator ((means)).** A device that is sealed or is supplied with air through a microbially retentive filtration system (HEPA minimum) and may be reproducibly decontaminated. When closed, an isolator uses only decontaminated interfaces (when necessary) or rapid transfer ports (RTPs) for materials transfer. When open, it allows for the ingress and/or egress of materials through defined openings that have been designed and validated to preclude the transfer of contaminants or unfiltered air to adjacent environments. An isolator can be used for aseptic processing, for containment of potent compounds, or for simultaneous asepsis and containment. Some isolator designs allow operations within the isolator to be conducted through attached rubber gloves without compromising asepsis and/or containment.

• **Aseptic isolator**~~((+))~~<sub>2</sub>. A ventilated isolator designed to exclude external contamination from entering the critical zone inside the isolator.

• **Aseptic containment isolator**~~((+))~~<sub>2</sub>. A ventilated isolator designed to meet the requirements of both an aseptic isolator and a containment isolator.

• **Containment isolator**~~((+))~~<sub>2</sub>. A ventilated isolator designed to prevent the toxic materials processed inside it from escaping to the surrounding environment.

**Occupational exposure** ~~((means))~~<sub>2</sub>. Reasonably anticipated inhalation, skin, ingestion, or injection contact with hazardous drugs as a result of the performance of an employee's duties. Some drugs defined as hazardous may not pose a significant risk of occupational exposure because of their dosage formulation (for example, coated tablets or capsules that are administered to patients without modifying the formulation). However, they may pose a risk if altered (for example, if tablets are crushed or dissolved, or if capsules are pierced or opened).

**Safety data sheet (SDS)** ~~((means))~~<sub>2</sub>. A summary provided by the manufacturer to describe the chemical properties and hazards of specific chemicals and ways in which workers can protect themselves from exposure to these chemicals.

**Ventilated cabinet** ~~((means))~~<sub>2</sub>. A type of engineering control designed for purposes of worker protection. These devices are designed to minimize worker exposures by controlling emissions of airborne contaminants through the following:

~~((+))~~ (a) The full or partial enclosure of a potential contaminant source.

~~((+))~~ (b) The use of airflow capture velocities to capture and remove airborne contaminants near their point of generation.

~~((+))~~ (c) The use of air pressure relationships that define the direction of airflow into the cabinet.

Examples of ventilated cabinets include biological safety cabinets and containment isolators.

**AMENDATORY SECTION** (Amending WSR 12-02-053, filed 1/3/12, effective 1/1/14)

**WAC 296-62-50055 Implementation plan.** ~~((+))~~  
Effective dates.

~~((a))~~ The written hazardous drugs control program must be completed and implemented by January 1, 2014, with the exception of (b) and (c) of this subsection.

~~((b))~~ Employee training must be implemented by July 1, 2014.

~~((c))~~ Installation of appropriate ventilated cabinets must be completed by January 1, 2015.

~~((2))~~ The department will work with stakeholders to implement this chapter by doing the following:

~~((+))~~ (1) Establish a hazardous drugs advisory committee to discuss new NIOSH recommendations, scientific and technological developments and other unanticipated issues related to rule implementation. This committee will include employer and employee representatives of the health care industry and representatives of affected state agencies. It may provide recommendations to the department regarding appropriate actions.

~~((+))~~ (2) Work with trade associations, labor unions and other representatives from the health care industry to develop model programs for implementation of these rules in a variety of health care facilities and settings. The department will provide education, training and consultation services to ensure that these model programs are widely distributed and can be effectively utilized.

~~((+))~~ (3) Establish a hazardous drugs web page, and post relevant resources, sample programs and forms.

**WSR 19-01-095**  
**PERMANENT RULES**  
**DEPARTMENT OF**  
**LABOR AND INDUSTRIES**

[Filed December 18, 2018, 10:00 a.m., effective July 1, 2019]

Effective Date of Rule: July 1, 2019.

Purpose: The purpose of this rule making is to promote better communication to injured workers, create greater certainty in rule for employers and to reduce dependency on department adjudication and improve alignment with existing statutes.

Citation of Rules Affected by this Order: New WAC 296-15-425; repealing WAC 296-15-200; and amending WAC 296-15-266, 296-15-320, 296-15-330, 296-15-340, 296-15-350, 296-15-360, 296-15-400, 296-15-405, 296-15-420, 296-15-450, and 296-15-4316.

Statutory Authority for Adoption: RCW 51.04.020.

Adopted under notice filed as WSR 18-18-080 on September 4, 2018.

Changes Other than Editing from Proposed to Adopted Version: WAC 296-15-340 has been updated to reflect that adding an electronic statement may be provided if authorized by the worker.

WAC 296-15-360 (2)(c) has been updated and the sentence, "The department will report the results, identify and consider feasible alternative methods of test delivery, make any recommendations for improvements, seek comments from stakeholders, and subsequently make a determination on methods for further administration of the testing processes," has been modified to, "The department will report the results, identify and consider feasible alternative methods of test delivery, make any recommendations for improvements if appropriate and seek comments from stakeholders." Subsection (6)(a)(iv) of the section has been updated and the sentence, "Credits may also be earned in injury prevention and safety, in addition to credits for injury recovery and claims administration," has been modified to, "Credits may also be earned in injury prevention and safety, in addition to credits for injury recovery and claims administration, but not to exceed five of the forty-five credits in three years.["]

WAC 296-15-425 has been updated to indicate that a department-developed template must be completed and sent to the worker when starting, stopping, or denying loss of earning power.

A final cost-benefit analysis is available by contacting LaNae Lien, P.O. Box 44890, Olympia, WA 98504-4890,

phone 360-902-6968, fax 360-902-6977, email lanae.lien@lni.wa.gov.

Number of Sections Adopted in Order to Comply with Federal Statute: New 0, Amended 0, Repealed 0; Federal Rules or Standards: New 0, Amended 0, Repealed 0; or Recently Enacted State Statutes: New 0, Amended 0, Repealed 0.

Number of Sections Adopted at the Request of a Non-governmental Entity: New 0, Amended 0, Repealed 0.

Number of Sections Adopted on the Agency's own Initiative: New 1, Amended 11, Repealed 1.

Number of Sections Adopted in Order to Clarify, Streamline, or Reform Agency Procedures: New 1, Amended 11, Repealed 1.

Number of Sections Adopted using Negotiated Rule Making: New 0, Amended 0, Repealed 0; Pilot Rule Making: New 0, Amended 0, Repealed 0; or Other Alternative Rule Making: New 0, Amended 0, Repealed 0.

Date Adopted: December 18, 2018.

Joel Sacks  
Director

**AMENDATORY SECTION** (Amending WSR 15-01-162, filed 12/23/14, effective 1/23/15)

**WAC 296-15-266 Penalties.** (1) **Under what circumstances will the department consider assessing a penalty for an unreasonable delay of benefits, when requested by a worker?** Upon a worker's request, the department will consider assessment of an unreasonable delay of benefits penalty for:

(a) Time-loss compensation benefits: The department will issue an unreasonable delay order, and assess associated penalties based on the unreasonably delayed time-loss as determined by the department, if a self-insurer:

(i) Has written medical certification based on objective findings from the attending medical provider authorized to treat that the claimant is unable to work because of conditions proximately caused by the industrial injury or occupational disease, or the claimant is participating in a department-approved vocational plan; and

(ii) Fails to make the first time-loss payment to the claimant within fourteen calendar days of notice that there is a claim\*, or fails to continue time-loss payments on regular intervals as required by RCW 51.32.190(3); and

(iii) Fails to ((request, with supporting medical evidence and within thirty days of receiving written notice of a newly ~~contended medical condition related to the industrial injury or occupational disease, that the department settle a dispute about the covered conditions or eligibility for time loss compensation. For good cause, in the department's sole discretion, a sixty day extension may be granted~~)) take action per WAC 296-15-425.

\* Notice of claim is provided to the self-insured employer when all the elements of a claim are met. The elements of a claim are:

- Description of incident. Examples: Self-Insurance Form 2 (SIF-2), physician's initial report (PIR), employer incident report.
- Diagnosis of the medical condition. Examples: PIR, on-site medical facility records if supervised by provider qualified to diagnose.

- Treatment provided or treatment recommendations. Examples: PIR, on-site medical facility records if supervised by provider qualified to treat.
- Application for benefits. Examples: SIF-2, PIR, or other signed written communication that evinces intent to apply.

(b) Unreasonable delays of loss of earning power compensation payments or permanent partial disability award payments will also be subject to penalty.

(c) ~~Unreasonable delays of payment of medical treatment benefits((The department will issue an unreasonable delay order, and assess associated penalties based on the department's fee schedule, order, and accrued principal and interest, if a self-insurer fails to pay all fees and medical charges within sixty days of receiving a proper billing, as defined in WAC 296-20-125 through 296-20-17004, or sixty days after the claim is allowed per RCW 51.36.080.~~

~~(i) If the self-insurer believes that it should not pay the billing, or if the self-insurer believes that the treatment is not for a condition proximately caused by the industrial injury or occupational disease, the self-insurer must, within sixty calendar days of receiving a billing, clearly state in writing to the worker and the medical provider why the payment is denied.~~

~~(ii) If a denial is disputed by the worker or medical provider and the self-insurer does not allow the bill, the self-insurer must notify the department within thirty days, and the department will review the reasons provided by the self-insurer and will make a decision by order within thirty days)) will also be subject to penalty.~~

(d) ~~Unreasonable delays of authorization of ((emergent or life-saving)) medical treatment benefits((The department will issue an unreasonable delay order, and assess associated penalties, based on the department's fee schedule, order, and accrued principal and interest, if a self-insurer fails to respond to requests to authorize emergent or life-saving treatment within fourteen days after receiving written notice of the request for treatment.~~

~~(i) If the request is denied, the self-insured employer must clearly tell the medical provider and the claimant, in writing, why the request is being denied.~~

~~(ii) If the medical provider or claimant disagrees with the self-insurer's decision, either of them may file a dispute with the department)) will also be subject to penalty.~~

(e) Failure to pay benefits without cause: The department will issue an order determining an unreasonable refusal to pay benefits, and assess associated penalties, based on the department's calculation of benefits or fee schedule, if a self-insurer fails to pay a benefit such as time-loss compensation, ~~((loss of earning power))~~ loss of earning power compensation, permanent partial disability award payments, or medical treatment when there is no medical, vocational, or legal doubt about whether the self-insurer should pay the benefit. Accrued principal and interest will apply to nonpayment of medical benefits.

(f) Paying benefits during an appeal to the board of industrial insurance appeals: The department will issue an unreasonable delay order, and assess associated penalties, based on the department's calculation of benefits or fee schedule, if a self-insurer appeals a department order to the board of industrial insurance appeals, and fails to provide the benefits required by the order on appeal within fourteen calendar days of the date of the order, and thereafter at regular

fourteen day or semi-monthly intervals, as applicable, until or unless the board of industrial insurance appeals grants a stay of the department order, or until and unless the department reassumes jurisdiction and places the order on appeal in abeyance, or until the claimant returns to work, or the department issues a subsequent order terminating the benefits under appeal.

(g) Benefits will not be considered unreasonably delayed if paid within three calendar days of the statutory due date. In addition, if benefits are delayed due to an underpayment from the monthly wage calculation for time-loss compensation under RCW 51.08.178, then the department shall presume the benefits are not unreasonably delayed if:

(i) The self-insurer sent a written copy of the wage calculation to the injured worker on a department-developed template; and

(ii) The self-insurer informed the worker, in writing, on a department-developed template that the worker should contact the self-insurer with any questions; and

(iii) The self-insurer notified the worker, in writing, on a department-developed template to write to the department within sixty days if the worker disputed the calculation.

This presumption may be rebutted by a showing of action without foundation or unsupported by evidence demonstrating an unreasonable delay of benefits despite the notification to the worker and the worker's failure to dispute.

Provided, (g)(i) through (iii) of this subsection will not apply to payments for statutory cost-of-living adjustments, payments that do not use the amount stated in the department-developed template, or a refusal to make payments ordered by the department.

**(2) How is a penalty request created and processed?**

(a) An injured worker may request a penalty against his or her self-insured employer by:

(i) Completing the appropriate self-insurance form or sending a written request providing the reasons for requesting the penalty;

(ii) Attaching supporting documents (optional).

(b) Within ten working days of receipt of a certified request, the self-insured employer must send its claim file to the department. Failure to timely respond may subject the self-insured employer to a rule violation penalty under RCW 51.48.080. The employer may attach supporting documents, or indicate, in writing, if the employer will be providing further supporting documents, which must be received by the department within five additional working days. If the employer fails to timely respond to the penalty request, the department will issue an order in response to the injured worker's request based on the available information.

(c) The department will issue an order within thirty days after receiving a complete written request for penalty per (a) of this subsection. The department's review during the thirty-day period for responding to the injured worker's request will include only the claim file records and supporting documents provided by the worker and the employer per (a) and (b) of this subsection.

(d) In deciding whether to assess a penalty, the department will consider only the underlying record and supporting documents at the time of the request which will include documents listed in (a) and (b) of this subsection, if timely avail-

able, to determine if the alleged untimely benefit was appropriately requested and if the employer timely responded.

(e) The department order issued under (c) of this subsection is subject to request for reconsideration or appeal under the provisions of RCW 51.52.050 and 51.52.060.

AMENDATORY SECTION (Amending WSR 06-06-066, filed 2/28/06, effective 4/1/06)

**WAC 296-15-320 Reporting of injuries. What elements must a self-insurer have in place to ensure the reporting of injuries?** Every self-insurer must:

(1) Establish procedures to assist injured workers in reporting and filing claims.

~~((2))~~ (a) Immediately provide a Self-Insurer Accident Report (SIF-2) form F207-002-000 to every worker who makes a request, or upon the self-insurer's first knowledge of the existence of an industrial injury or occupational disease, whichever occurs first. ~~((Only department provided SIF-2 forms may be used. Copies or reproductions are not acceptable.~~

~~(3))~~

(b) Establish procedures for ensuring the timely delivery of completed SIF-2s to the claims management entity.

~~((4))~~ (2) Designate individuals as resources to address employee questions. These resources must:

(a) Have sufficient knowledge to answer routine questions; and

(b) Have responsibility for seeking answers to more complex problems; and

(c) Have detailed knowledge of the self-insurer's claim filing process; and

(d) Be reasonably accessible to employees ~~((at every work location.~~

~~(5) Maintain a claims log of all workers' compensation claims filed.~~

~~(a) For each claim, the log must consist of only the following information:~~

~~(i) The complete first and last name of the injured worker (no initials or abbreviations);~~

~~(ii) The date of injury, or for an occupational disease, the date of manifestation;~~

~~(iii) The claim number found on the department's Self-Insurer Accident Report (SIF-2, form F207-002-000);~~

~~(iv) The date the claim is closed;~~

~~(v) Whether the claim is a time loss claim or medical only.~~

~~(b) The self-insurer must designate the location of the official claims log.~~

~~(i) The self-insurer may maintain the log on its premises; or~~

~~(ii) The self-insurer may elect to have its third-party administrator maintain the claims log on its behalf. If this option is selected, there must be a written agreement between the self-insurer and the third-party administrator acknowledging that the official claims log is maintained by the third-party administrator.~~

~~The self-insurer must notify the department in writing of the location of their official claims log. If the option in (b)(ii) of this subsection is selected, a copy of the written agreement~~

between the self-insurer and the third-party administrator must be provided to)).

(3) Upon request, produce a report of all workers' compensation claims filed in a format required by the department.

AMENDATORY SECTION (Amending WSR 13-09-023, filed 4/9/13, effective 5/10/13)

**WAC 296-15-330 Authorization of medical care. What are the requirements for authorization of medical care?** Every self-insurer must:

(1) Authorize treatment and pay bills in accordance with Title 51 RCW and the medical aid rules and fee schedules of the state of Washington.

(2) Provide a written explanation of benefits (EOB) to the provider, with a copy to the worker if requested, for each bill adjustment. A written explanation is not required if the adjustment was made solely to conform to the maximum allowable fees as set by the department.

(3) Provide a written explanation to the worker and provider(s) regarding any denied bill. Bills returned to the provider because a proper bill was not submitted under WAC 296-20-125 do not require a written explanation.

(4) Establish procedures to ensure prompt responses to inquiries regarding authorization decisions and bill adjustments.

~~((4))~~ (5) Comply with the requirements of the health care provider network. This includes:

(a) Utilizing only those providers approved for the provider network, except when the provider specialty or geographic location is not yet covered by the network;

(b) Providing information to workers about the requirement for providers to be enrolled in the network in order to treat injured workers and information on how a worker can find network providers. This information must be included in publications used by self-insurers to comply with WAC 296-15-400 (2)(a);

(c) Ensuring, when applicable, that only network providers are paid for care after the initial office or emergency room visit; and

(d) Promptly assisting workers who are being treated by a nonnetwork provider to transfer their care to a network provider of their choice; including, at a minimum, notification to the worker within forty-five days of receipt of the first bill from a nonnetwork provider that the provider will not be paid for treatment beyond the initial visit on the claim and information about how to find network providers.

AMENDATORY SECTION (Amending WSR 06-06-066, filed 2/28/06, effective 4/1/06)

**WAC 296-15-340 Payment of compensation. What are the requirements for payment of compensation?** Every self-insurer must:

(1) Pay time-loss compensation in accordance with Title 51 RCW and the rules and regulations of the department.

(2) ~~((Select one method for payment of ongoing time loss compensation, either semimonthly or biweekly, and report the selected method to the department.~~

(3) ~~Provide the department with a detailed written description of any practice of paying workers' regular wages~~

~~in lieu of time loss compensation, or of paying workers any benefits including sick leave, health and welfare insurance benefits, or any other compensation in conjunction with time loss compensation.)) Provide to workers a statement of benefits with each time-loss payment, to include the type of benefit paid and the period paid with from and to dates. If authorized by the worker, an electronic statement may be provided. In addition, provide to workers a statement of benefits with payments for reimbursements to workers.~~

(3) When payable, time-loss must continue at regular semi-monthly or bi-weekly intervals. When making an initial payment, an employer may adjust the date for payment of time-loss to align with a worker's normal date for payment of wages; however, the payment must be made within ten days of the entitlement period.

AMENDATORY SECTION (Amending WSR 14-02-121, filed 1/2/14, effective 2/2/14)

**WAC 296-15-350 Handling of claims. What elements must a self-insurer have in place to ensure appropriate handling of claims?** Every self-insurer must:

(1) Establish procedures for securing the confidentiality of claim information.

(2) Have sufficient numbers of certified claims administrators to ensure uninterrupted administration of claims. In this regard:

(a) There must be at least one certified claims administrator involved in the daily management of the employer's claims.

(b) If claims are administered in more than one location, there must be at least one certified claims administrator in each location where claims are managed. Effective July 1, 2020, to ensure consistent application and delivery of benefits pursuant to Washington laws, every person making claim decisions outside the state of Washington must be a certified claims administrator and maintain core business office hours for Pacific Standard Time. For the purposes of this section, every person making claim decisions includes:

(i) Those persons who manage claims directly; and

(ii) Who request to allow or deny claims under WAC 296-15-420;

(iii) Take action on claims under WAC 296-15-425; or

(iv) Close claims under WAC 296-15-450.

(c) Excluded from the requirement of (b) of this subsection are those persons who manage operations indirectly in support of claims administrators, such as, human resources, accounting, or executive management.

(d) When a new person is hired by the out-of-state employer to make claims decisions, if the new person is not already a certified claims administrator, then the new person must begin working toward achievement of certification through a comprehensive goal-oriented curriculum approved by the department to achieve certification within two years. While in process of meeting educational needs, the employer must ensure mentoring is provided by a Washington certified claims administrator and maintain a minimum of one Washington certified employee at each out-of-state location where claims are managed. Providers of the comprehensive goal-oriented curriculum will conduct regular training courses to

allow for a new person in the process of completing the training to successfully manage Washington claims and achieve Washington certification within two years. This will include considering online alternatives, when feasible.

(e) When a certified claims administrator leaves the hire of an employer or third-party administrator, whether in-state or out-of-state, and this results in an employer temporarily not meeting the qualifications for a certified claims administrator, the employer may apply for a temporary waiver for up to six months pending hiring of a replacement.

(3) Designate one certified claims administrator as the department's primary contact person for claim issues.

(4) Designate one address for the mailing of all claims-related correspondence. The self-insurer is responsible for forwarding documents to the appropriate location if an employer's claims are managed by more than one organization.

(5) Establish procedures to answer questions and address concerns raised by workers, providers, or the department.

(6) Ensure claims management personnel are informed of new developments in workers' compensation due to changes in statute, case law, rule, or department policy.

(7) Include the department's claim number in all claim-related communications with workers, providers, and the department.

(8) Legibly date stamp incoming correspondence, identifying both the date received and the location or entity that received it.

(9) Ensure a means of communicating with all injured workers.

AMENDATORY SECTION (Amending WSR 14-02-121, filed 1/2/14, effective 2/2/14)

**WAC 296-15-360 Qualifications of personnel—Certified claims administrators.** (1) **What is a certified claims administrator?** An experienced adjudicator who has been certified by the department to meet the requirements of WAC 296-15-350(2).

(2) **How do I become a certified claims administrator for self-insured claims?**

(a) Have a minimum of ~~((three))~~ two years of experience, at least twenty hours per week, in the administration or oversight of time-loss claims under Title 51 RCW. The experience must have occurred within the five years immediately prior to your filing of the application to take the "self-insurance claims administrator" test ~~((; and))~~.

(b) Have completed:

(i) A comprehensive goal-oriented curriculum approved by the department and resulting in a worker's compensation professional designation; or

(ii) An approved training program within the department.

(c) Take and pass the department's "self-insurance claims administrator" test. The department will provide annual reports to stakeholders. The department will report the results, identify and consider feasible alternative methods of test delivery, make any recommendations for improvements if appropriate and seek comments from stakeholders.

(i) If you have the requisite experience under (a) of this subsection, you may take the test without completing the training required under (b)(i) or (ii) of this subsection. If you do not pass the test, then you must wait a minimum of three months to retake the test at a date and time scheduled by the department. The provision to take the test for certification without completing the requisite training will expire two years from the effective date of this rule.

(ii) If you have already passed the test and are a certified claims administrator, you will maintain your certified claims administrator designation without completing the training required under (b)(i) or (ii) of this subsection, and you will need to fulfill the continuing education credits under subsection (6) of this section.

After passing the test, you are designated a certified claims administrator. ~~((The initial))~~ This is a lifetime certification ((is valid for five years)), provided that continuing education requirements are met.

(3) **How do I receive approval to take the test?** To be approved to take the "self-insurance claims administrator" test, you must apply using the department's online database no less than forty-five days prior to the next scheduled test date.

The department will review your application and determine if you meet the minimum requirements to take the test. ~~((We))~~ The department will respond to your application no less than fourteen days prior to the next scheduled test date.

(4) **What happens if I fail the test?** You may retest six months after the failed test.

If you are a certified claims administrator and you fail the test, your certification will be terminated until you retest and pass.

(5) **What must a department-approved comprehensive goal-oriented curriculum for a worker's compensation professional designation include?** The curriculum must include:

(a) All phases of basic, intermediate, and advanced claim validity issues, including injury during the course of employment, occupational exposure and illness or disease, causal relationship of injury or illness, prima facie consideration, and submittal of claims to department;

(b) All phases of basic, intermediate, and advanced medical benefit management, including treatment authorization, surgery approval, aggravation of conditions, segregation of conditions, use of consultations and independent medical examinations (IMEs), and department medical guidelines;

(c) All phases of basic, intermediate, and advanced compensation management, including determining the wage as the basis of compensation, payment of temporary total disability payments, permanent partial disability payments, and loss of earning power compensation; and

(d) All phases of basic, intermediate, and advanced work disability prevention, including worker-centric return to work practices, modified or light duty jobs, other vocational recovery interventions, and medical provider collaboration on return to work, activity prescription forms, and job analyses.

(e) Training must include at least seventy-two credit hours as provided in subsection (6)(b) of this section.

(f) Curriculum submitters must provide their written core curriculum plan to the department with a table of con-

tents listing the courses in the curriculum, and a detailed description of the content for each course. The curriculum advisory committee will review the submitters' proposed curriculum content and advise of any recommended adjustments, and the department will determine and provide notice of approval or denial within ninety days, or extend the time for approval or denial of the plan for another ninety days. The department may request additional materials, and require adjustments in the core curriculum plan prior to approval, as it deems necessary.

A department-approved curriculum must be reapproved every three years.

**(6) How does a certified claims administrator maintain their certified status ((beyond the initial five-year designation))?** A certified claims administrator may maintain certified status by((: (a) Retaking and passing the "self-insurance claims administrator" test as outlined in subsections (2) and (3) of this section;

~~or~~

~~(b) Remaining employed for a minimum of three of the last five years in the administration or oversight of claims under Title 51 RCW;~~

~~and) earning the required continuing education credits as outlined in this subsection ((6) of this section;~~

~~and~~

~~Applying to the department for renewal.~~

**(6) What is required if I choose to maintain my certified status using continuing education credits?**

~~(a) You must earn ((a minimum of seventy-five)) forty-five credits ((and submit your renewal application prior to lapse of the certified status. Extensions will not be granted)) every three years.~~

Credits earned within five years prior to the effective date of this rule may be carried forward and applied toward meeting the required continuing education credits for three years following the effective date of this rule up to a maximum of forty-five credits.

Credits ~~((must))~~ may be earned in the following ~~((categories))~~ areas:

~~(i) ((Forty claims management credits, defined as:~~

~~Instruction on any complex claim adjudication activity that is geared to an experienced adjudicator, containing information that goes beyond known, common everyday practices, including instruction on complex medical issues related to the adjudication of claims under Title 51 RCW;~~

~~and~~

~~That is not specific to the legal category.~~

~~(ii) Twenty legal credits, defined as:~~

~~Instruction on any recent changes to: Title 51 RCW, the *Washington Administrative Code*, significant board decisions, and case law. "Recent" will generally be considered decisions and changes that occurred within the eighteen-month period prior to course submittal.~~

~~(iii) Fifteen general claims education credits, defined as:~~

~~Instruction on common everyday claims and related practices such as refresher classes, industry specific training, safety, and injury prevention courses. For this category only, credit will be awarded one credit for every hour of instruction.~~

~~Excess claims management or legal credits may be applied toward the general claims education credit requirement.)) Instruction on relevant workers' compensation subjects that help injured workers heal and return to work, and focus on areas of recovery such as, but not limited to, medical benefit management, payment of compensation, and vocational services;~~

~~(ii) Instruction on existing or historical workers' compensation statutes, case law, rule, or departmental policy, which may assist with managing claims, answering questions, and addressing concerns in accordance with WAC 296-15-350(5);~~

~~(iii) Instruction on new developments in workers' compensation such as, but not limited to, changes in statute, case law, rule, or departmental policy, which may assist claims management personnel in remaining current in accordance with WAC 296-15-350(6); or~~

~~(iv) Credits may also be earned in injury prevention and safety, in addition to credits for injury recovery and claims administration, but not to exceed five of the forty-five credits in three years.~~

The ~~((seventy-five))~~ forty-five credits must include any training designated as mandatory by the department. All training must be specific to Washington law, or describe in detail how the training is relevant to administering Washington law. If you fail to earn sufficient continuing education credits, you will be required to retake the written test to maintain your certified status.

~~(b) Continuing education providers must submit a training plan with a detailed outline of each area of training to the department when courses are offered. The curriculum advisory committee will review the submitters' proposed training plan and advise of any recommended adjustments, and assignment of course credit will be determined by the ((curriculum review committee)) department as follows: A maximum of one credit per hour of training will be awarded ((if all of the material submitted meets the definition of that category)). Credit will be assigned based on 0.5 increments; no credit will be awarded for increments less than 0.5((The curriculum review committee's decision will be final)).~~

~~(c) ((Courses approved for elective credits prior to the effective date of this rule change will be applied as general claims education credits.)) Department-approved continuing education courses must be reapproved biannually (every two years).~~

~~(d) You must track and report earned credits at the department's online database. You must obtain and retain signed verification of courses attended. Verification of earned credits must be received by the department by the date the certified claims administrator's certification expires. Extensions will not be granted. If your certification lapses, you will not need to complete the comprehensive goal-oriented curriculum if you apply for reinstatement within two years of the lapse, and then take and pass the department's "self-insurance claims administrator" test.~~

~~(e) The department may audit the reported credits of any certified claims administrator at random, or "for cause." Falsification of reported credits will result in revocation of the individual's certified claims administrator status, and may~~

result in the department's refusal of future applications to take the self-insurance claims administrator test.

(7) **How often must certified claims administrators notify the department of changes to their contact information?** Certified claims administrators must notify the department within thirty calendar days of the effective date of a change in mailing address, work location, or name. Changes must be reported using the department's online database.

AMENDATORY SECTION (Amending WSR 98-24-121, filed 12/2/98, effective 1/2/99)

**WAC 296-15-400 Self-insured workers' rights and obligations. How must a self-insurer notify its workers of their rights and obligations under the industrial insurance laws?**

Self-insurers must notify workers of their industrial insurance rights and obligations at the following times:

(1) Within thirty days of hire, provide a form substantially similar to the one page Workers' Compensation Filing Information L&I form F207-155-000, or if authorized by the worker provide a link to the form giving electronic access online in lieu of a paper form.

(2) When a worker files a claim, provide the following information in writing:

(a) The current edition of the department's (~~pamphlet Employees of Self-Insured Businesses Guide to Industrial Insurance Benefits L&I~~) pamphlet P207-085-000 (~~or this same information in substantially similar format~~), A Guide to Workers' Compensation Benefits for Employees of Self-Insured Businesses, or if authorized by the worker provide a

link to the pamphlet giving electronic access online in lieu of a paper pamphlet; and

(b) The name, address, and phone number of the person or organization handling the worker's claim.

AMENDATORY SECTION (Amending WSR 98-24-121, filed 12/2/98, effective 1/2/99)

**WAC 296-15-405 Filing a self-insured claim. (1) What form is used to report a self-insured worker's industrial injury or occupational illness?**

The reporting form for a self-insured worker's industrial injury or occupational illness is the Self-Insurer Accident Report (SIF-2) L&I form F207-002-000. Self-insurers must obtain these forms from the department and must report their workers' industrial injuries and illnesses to the department with SIF-2s. The department tracks the claim numbers assigned to self-insurers.

When notified of injury or illness, the self-insurer must provide the worker with this prenumbered form and assistance in filing a claim. The self-insurer must provide the worker the designated copy of the completed SIF-2 (which includes an explanation of the worker's rights and responsibilities) within five working days of completion.

**(2) What form does a (~~doctor~~) health care provider use to report a self-insured worker's industrial accident or occupational illness?**

Physicians should report a self-insured claim with a (~~Physician's~~) Provider's Initial Report (PIR) L&I form F207-028-000 when a self-insured worker has an industrial injury or is notified of an occupational illness. Replacements are acceptable.

AMENDATORY SECTION (Amending WSR 06-06-066, filed 2/28/06, effective 4/1/06)

**WAC 296-15-420 (~~After a self-insured claim is filed~~) Requesting allowance or denial, or interlocutory order from the department—Providing claim file. (~~(1) What must a self-insurer do when beginning time loss (TL) benefits on a claim?~~**

<b>When</b>	<b>Send to the worker</b>	<b>Send to the department</b>	<b>The department will</b>
On the date of the first TL payment.	A complete and accurate SIF-5 <sup>1</sup> and SIF-5A <sup>2</sup> .		
Within 5 working days of first TL payment.		Copies of the SIF-2, SIF-5, and SIF-5A.	Allow the claim UNLESS a request for interlocutory order (see subsection (2)) or denial (see subsection (3)) has been received.
If kept on salary <sup>3</sup> , within 5 working days of the date the first TL payment would have been due.	A complete and accurate SIF-5 and SIF-5A.	Copies of the SIF-2, SIF-5, and SIF-5A.	Allow the claim UNLESS a request for interlocutory order (see subsection (2) of this section) or denial (see subsection (3) of this section) has been received.

<sup>1</sup> The SIF-5 is the Self-Insurer's Report on Occupational Injury or Disease. Use a form substantially similar to L&I form F207-005-000.

<sup>2</sup> The SIF-5A is the Time Loss Calculation Rate Notice. Use a form substantially similar to L&I form F207-156-000.

<sup>3</sup> If the worker is kept on salary, report the amount of time loss the worker would have been entitled to on the SIF-5.

**(2) How must a self-insurer request an interlocutory<sup>1</sup> order?**

When requesting an interlocutory order from the department, a self-insurer must:

When	Send to the worker	Send to the department	The department will	And the self-insurer pays
Within 60 <sup>2</sup> -days of claim filing.	A complete and accurate SIF-5 and SIF-5A if TL was paid or if worker was kept on salary.	Copies of the SIF-2, SIF-5 (with the interlocutory order box checked), SIF-5A, AND all records excluding bills AND a reasonable explanation why an interlocutory order is needed.	If it agrees, issue an interlocutory order.	Provisional TL if the worker is eligible AND other benefits as entitled. Ongoing medical treatment and vocational services are NOT PAYABLE unless the claim is allowed.
			If it disagrees, issue an allowance order if the facts show the claim should be allowed.	TL if the worker is eligible, and other entitled benefits.

<sup>1</sup> An interlocutory order places a claim in provisional status while the self-insurer investigates the validity of the claim.

<sup>2</sup> When not specified, time is in calendar days.

**(3) How must a self-insurer request claim denial from the department?**

When requesting claim denial from the department, a self-insurer must:

When	Send to the worker	Send to the department	The department will	And the self-insurer pays
Within 60 days of claim filing.	SIF-4. <sup>1</sup> Copy to the attending or treating doctor.	SIF-4 AND all records excluding bills.	If it agrees, issue a denial order.  The denial order will restate the self-insurer's right to request reimbursement of provisional TL from the worker.	For all medical evaluations and diagnostic studies used to make the determination.
			If it finds insufficient information to make a decision, issue an interlocutory order AND direct the employer to obtain the necessary information.	Provisional TL if the worker is eligible and other benefits as entitled.  Ongoing medical treatment and vocational services are NOT PAYABLE unless the claim is allowed.
			If it disagrees, issue an allowance order if the facts show the claim should be allowed.	TL if the worker is eligible AND other entitled benefits.

<sup>1</sup> The SIF-4 is the Self-Insured Employer's Notice of Denial of Claim. Use a form substantially similar to L&I form F207-163-000.)

**(1) How must a self-insurer request claim allowance on a time-loss compensation claim?**

Within sixty days of notice of claim, a self-insurer must:

(a) Send a department-developed form<sup>1</sup> requesting allowance to the department (may be submitted electronically or paper copy), and attach copies of the SIF-2 and SIF-5A<sup>2</sup>. The department will allow the claim unless a request for interlocutory order (see subsection (2) of this section) or denial (see subsection (3) of this section) has been received.

(b) If the injured worker is kept on salary, send copies of the department-developed form<sup>3</sup> and SIF-5A within five working days of the date the first time-loss payment would have been due. The department will allow the claim UNLESS a request for interlocutory order (see subsection (2) of this section) or denial (see subsection (3) of this section) has been received.

<sup>1</sup>The department-developed form is the form used to request allowance (formerly SIF-5).

<sup>2</sup>The SIF-5A is the time-loss calculation rate notice. Use a form substantially similar to L&I form F207-156-000.

<sup>3</sup>If the worker is kept on salary, report the amount of time-loss the worker would have been entitled to on the department-developed form.

**(2) How must a self-insurer request an interlocutory order?**

Within sixty days of notice of claim, a self-insurer must send the department:

(a) A department-developed form requesting interlocutory status to the department (may be submitted electronically or paper copy), and attach copies of the SIF-2, and SIF-5A;

(b) The entire claim file excluding medical bills; and

(c) A reasonable explanation why an interlocutory order is needed.

A self-insurer must pay provisional time-loss if worker is eligible AND other benefits as entitled. Ongoing medical treatment and vocational services are NOT PAYABLE unless the claim is allowed. If the department disagrees with the request for an interlocutory order, it will issue an allowance order if the facts show the claim should be allowed.

<sup>1</sup>An interlocutory order places a claim in provisional status while the self-insurer investigates the validity of the claim.

**(3) How must a self-insurer request claim denial?**

(a) Within sixty days of notice of claim, a self-insurer must:

(i) Send a department-developed form<sup>1</sup> requesting denial to the department (may be submitted electronically or paper copy) AND submit the entire claim file excluding bills. The employer will also notify the worker when a request for denial of the claim is sent to the department.

(ii) Pay for all medical evaluations and diagnostic studies used to make the determination.

(iii) Pay provisional time-loss if the worker is eligible and other benefits as entitled. Ongoing medical treatment and vocational services are NOT PAYABLE unless the claim is allowed.

(b) Upon receipt and after consideration of the request, the department will:

(i) If in agreement, issue a denial order. The denial order will restate the self-insurer's right to request reimbursement of provisional time-loss from the worker.

(ii) If information is insufficient to make a decision, issue an interlocutory order AND direct the employer to obtain the necessary information.

(iii) If it disagrees, issue an allowance order if the facts show the claim should be allowed.

<sup>1</sup>The department-developed form (formerly SIF-4) is the form used to request denial.

**(4) What if a self-insurer does not request allowance, denial, or an interlocutory order for a claim within sixty days?**

If a self-insurer does not request allowance, denial, or an interlocutory order within sixty days, the department will intervene and adjudicate the claim. The department may obtain additional medical information to make the determination. The claim remains in provisional status until the department makes the determination.

The exception to this requirement is the allowance of medical only claims. Self-insurers are not required to request allowance for medical only claims.

**(5) Must a self-insurer submit (~~(a)~~) a department-developed form (formerly SIF-5) each time the department requests one?**

Yes. A self-insurer must submit a complete and accurate department-developed form (formerly SIF-5) within ten working days of receipt of a written request from the department.

**(6) What must a self-insurer do when the department requests information on a claim by certified mail?**

A self-insurer must submit all requested information concerning the claim within ten working days of receipt of the department's request by certified mail.

**(7) How long does a self-insurer have to provide a copy of the claim file to the worker or worker's representative?**

A self-insurer must provide a copy of the claim file within fifteen days of receiving a written request from the worker or worker's representative. Unless the worker or representative requests a particular portion of the file, the self-insurer must provide a copy of the entire file.

**(8) When may a self-insurer charge a worker or his/her representative for a copy of the claim file?**

A self-insurer must provide the first copy of a claim file free of charge. Upon receipt of a subsequent written request, the self-insurer must provide any material not previously supplied free of charge. The self-insurer may charge the worker or any representative a reasonable fee for any material previously supplied.

~~**(9) What must a self-insurer do when it terminates time loss?**~~

~~No later than the date of time loss termination, a self-insurer must notify the worker in writing of the reasons for time loss termination. If termination is based on a release to work not received directly from the worker, attach a copy of the release to the notice.)~~

**NEW SECTION**

**WAC 296-15-425 Communicating to injured workers during the course of the claim. (1) How does a self-insurer communicate claims administration actions to workers?**

The self-insurer must communicate in writing using a department-developed template to inform workers of actions involving delivery of benefits.

**(2) What is the purpose of the department-developed template?**

To provide timely and accurate delivery of benefits and prompt resolution of disputes during the course of a claim (between the allowance and closure of a claim); to promote efficient claims processing that is protective of workers and effective for employers by improving communications to workers, clarifying requirements and providing certainty of claims administration for self-insurers, and streamlining regulatory oversight by the department.

**(3) When must a department-developed template be completed and sent to the worker?**

Within five days of a claims administrator taking action on a claim involving:

(a) Calculation of the worker's monthly wage that forms the basis for time-loss compensation at time of payment;<sup>1</sup>

(b) Starting\*, stopping, or denying time-loss or loss of earning power compensation;

(c) Acceptance or denial of a condition contended under the claim;

(d) Authorization or denial of treatment requested by a medical provider with specified diagnosis and procedure codes for treatment requiring authorization under WAC 296-20-03001; or

(e) Assessment of an underpayment or overpayment of benefits (from date of knowledge).

\*When starting time-loss compensation the self-insurer must send a copy of the department-developed template and SIF-2 to the department.

**(4) What is a department-developed template?**

A department-developed template is used by the self-insurer to inform a worker of administrative actions on the claim involving delivery of benefits. The template:

(a) Informs the worker of the action being taken, and that if the worker disputes the action the worker should within sixty days write and ask the department to intervene to adjudicate the dispute.

(b) Upon receipt of a dispute, the department will intervene to adjudicate the matter and issue an order in accordance with RCW 51.52.050.

(c) If no dispute is received, then the department will not issue an order, and when the condition of the injured worker has become fixed, the self-insurer may close the claim in accordance with RCW 51.32.055 and WAC 296-15-450. If an overpayment remains unpaid at the time of closure, then upon request, the department will issue an overpayment order in accordance with RCW 51.32.240.

<sup>1</sup>When communicating the worker's monthly wage, the department-developed template will serve as a cover letter to the SIF-5A, the time-loss calculation rate notice under WAC 296-15-420.

AMENDATORY SECTION (Amending WSR 16-21-074, filed 10/18/16, effective 11/18/16)

**WAC 296-15-4316 What must the self-insurer do when the worker declines further vocational rehabilitation services and elects option 2 benefits?** When the department approves a rehabilitation plan, the department will notify the worker in writing of their right to decline further vocational rehabilitation services and elect option 2 benefits. The worker must make an election within the time frame required in WAC 296-19A-600. When the worker elects option 2 benefits, the self-insurer must take the following action within five working days of receiving the worker's request:

(1) ~~(Terminate time-loss benefits with proper notification to the worker as required in WAC 296-15-420(9));~~

(2) ~~Establish the total amount of the option 2 award and a payment schedule for the option 2 benefits that begins the date time-loss is terminated;~~

~~(3))~~ Submit a Self-Insurance Vocational Reporting Form to the department. The Self-Insurance Vocational Reporting Form must include:

(a) The total vocational services costs paid since the date the worker was found eligible for services; and

(b) The option 2 election form signed by the worker(~~;~~ and

~~(c) Documentation that includes the total amount of the option 2 award and payment schedule)).~~

~~((4))~~ (2) Upon issuance of a department order confirming the option 2 election, terminate time-loss benefits effective the date of the department order with proper notification to the worker as required in WAC 296-15-425, and commence payment of option 2 benefits to the worker according to the established payment schedule. The first payment must be made no later than fifteen days after the date time-loss is terminated. Option 2 benefits may be paid before the department issues an order.

AMENDATORY SECTION (Amending WSR 06-06-066, filed 2/28/06, effective 4/1/06)

**WAC 296-15-450 Closure of self-insured claims. (1) Who closes self-insured claims?**

The department has the authority to close all self-insured claims. Self-insurers have the authority to close certain claims.

Within two years of claim closure on a claim the self-insurer closed, the department may require a self-insurer to pay additional benefits (~~on a claim the self-insurer closed~~) if the self-insurer:

(a) Made ~~((an))~~ a clerical error in benefits paid; ~~((or))~~

(b) Paid benefits due to mistake of identity or innocent misrepresentation; or

(c) Violated the conditions of claim closure.

**(2) What claims may a self-insurer close?**

<b>A self-insurer may close</b>	<b>If the</b>	<b>With time-loss?</b>	<b>Other requirements?</b>	<b>With PPD?</b>
Medical only (MO) claims	Claim was filed on or after 07/01/90 and before 08/01/97	Without	None.	Without <sup>1</sup>
Time-loss (TL) claims	Claim was filed on or after 07/01/86 and before 08/01/97	With	1. Not if the department issued an order resolving a dispute; AND 2. Only if the worker returned to work with the employer of record at the same job or at a job with comparable wages and benefits. <sup>2</sup>	Without <sup>1</sup>
All claims: Medical only (MO) claims Time-loss (TL) claims Permanent partial disability (PPD) claims	Claim was filed on or after 08/01/97	With or without	1. Not if the department issued an order resolving a dispute; AND 2. Only if the worker returned to work with the employer of record at the same job or at a job with comparable wages and benefits; <sup>2</sup> AND 3. Only if the closing medical report was sent to the attending or treating doctor and 14 <sup>3</sup> days allowed for response.	With or without

<sup>1</sup> A self-insurer may not close a claim with PPD if the injury or illness occurred before 08/01/97.

<sup>2</sup> Comparable means the wages and benefits are at least ninety-five percent of the wages and benefits received by the worker at the time of injury.

<sup>3</sup> When not specified, time is in calendar days.

**(3) When a self-insurer is closing a PPD claim, what must it do with the closing medical report?**

When a self-insurer is closing a PPD claim, it must send the closing medical report to the attending or treating doctor, and the doctor must be allowed fourteen days to respond. When the attending or treating doctor responds:

<b>Within 14 days</b>	<b>And the doctor AGREES with</b>	<b>And the doctor DISAGREES with</b>	<b>Then the self-insurer</b>	
Within	Fixed and stable and PPD rating		MAY	Close the claim.
Does not respond			MAY	Close the claim
Within or before the order is issued		Fixed and stable	MUST	1. Obtain a supplemental medical opinion from (an) examiner(s) listed on the department's approved examiner's list; OR 2. Forward the claim to department for closure. The department may require additional medical examinations.
Within or before the order is issued	Fixed and stable	PPD rating	MUST	1. Obtain a supplemental medical opinion from (an) examiner(s) listed on the department's approved examiner's list; OR 2. Forward the claim to department for closure. The department may require additional medical examinations.
Not within, after the order is issued, but before the order is final		Fixed and stable and/or PPD rating	MUST	Forward the claim including the doctor's response to the department as a protest within five working days of receipt.

**(4) What must a self-insurer do with a closing medical report, regardless of who is closing the claim?**

A self-insurer must send the closing medical report to the attending or treating doctor. If the doctor responds that he/she does not concur with the results, the self-insurer must:

(a) Obtain a supplemental medical opinion from (an) examiner(s) listed on the department's approved examiner's list in order to do the closing action itself; OR

(b) Forward the claim to department for closure. The department may require additional medical examinations.

**(5) When a self-insurer is closing a claim, what written notice must it provide to the worker and attending or treating doctor?**

At claim closure, a self-insurer must send the closing order to the worker and attending or treating doctor.

(a) For a MO claim, use a Self-Insurer's Claim Closure Order and Notice substantially similar to F207-020-111.

(b) For a TL claim, use a Self-Insured Employers' Time-Loss Claim Closure Order and ~~((Notice substantially similar to F207-070-000))~~ a department-developed form<sup>1</sup>. Include a complete and accurate ~~((SIF-5 substantially similar to L&I form F207-005-000))~~ department-developed form with the worker's copy.

(c) For a PPD claim:

(i) When no TL or loss of earning power (LOEP) was paid, use a form substantially similar to L&I form F207-165-000 (MO with PPD). Include a complete and accurate ~~((SIF-5))~~ department-developed form with the worker's copy.

(ii) When TL or LOEP was paid, use a form substantially similar to L&I form F207-164-000 (TL with PPD). Include a complete and accurate ~~((SIF-5))~~ department-developed form with the worker's copy.

<sup>1</sup>The department-developed form (formerly SIF-5) is the form used to request claim closure.

**(6) When a self-insurer is closing a claim, what information must it submit to the department?**

A self-insurer must submit to the department:

(a) MO claim closures by the end of the month following closure. These may be transferred electronically or reported by paper.

(i) Closures transferred electronically must be in the department's format.

(ii) Closures submitted in paper must include the SIF-2 L&I form F207-002-000 showing the date of closure and any vocational services provided.

(b) TL and PPD claim closures at the time of closure. Include copies of each of the following:

(i) SIF-2 if not previously submitted.

(ii) Closure order.

Note: If no one protests the self-insurer's closure order, it will become final and binding in sixty days, just like a department order.

(iii) A PPD Payment Schedule, if necessary, substantially similar to L&I form F207-162-000.

(A) A payment schedule is required when the amount of the award is more than three times the state's average monthly wage at the date of injury. At initial/down payment, send copies to the worker and the department.

(B) The first payment of the PPD award must be paid within five working days of claim closure. Continuing pay-

ments must be paid according to the established payment schedule.

(iv) A complete and accurate ~~((SIF-5))~~ department-developed form showing all requirements for closure have been met, any TL or LOEP paid, period of payment, and total amount paid.

**(7) ~~((When the department is closing a claim,))~~ What must the self-insurer ~~((submit when requesting claim closure))~~ do to request closure of a claim by the department?**

When a self-insurer is asking the department to close the claim, it must submit:

(a) A complete and accurate ~~((SIF-5; and))~~ department-developed form requesting closure;

(b) A transaction record of all time-loss payments made; and

(c) All records not previously submitted to the department excluding bills.

**(8) When the department has closed a PPD claim, when must the self-insurer create a payment schedule?**

When the department has closed a PPD claim, the self-insurer must create a PPD Payment Schedule substantially similar to L&I form F207-162-000 when the amount of the award is more than three times the state's average monthly wage at the date of injury. At initial/down payment, send copies to the worker and the department.

**(9) When the department has closed a PPD claim, when must the self-insurer make the first payment of the award?**

When the department has closed a PPD claim, the self-insurer must make the first payment of the award without delay. Continuing payments must be paid according to the established payment schedule.

**REPEALER**

The following section of the Washington Administrative Code is repealed:

WAC 296-15-200 Claims log—Evaluation.

**WSR 19-01-096  
PERMANENT RULES  
DEPARTMENT OF  
LABOR AND INDUSTRIES**

[Filed December 18, 2018, 10:05 a.m., effective April 1, 2019]

Effective Date of Rule: April 1, 2019.

Purpose: The pension discount rate (PDR) is the interest rate used to account for the time value of money when evaluating the present value of future pension payments. The purpose of this rule making is to lower the PDR using different assumptions for annual investment returns for the reserve funds for self-insured and state fund pension claims, and to align with recent department requested legislation passed in the 2018 session, chapter 282, Laws of 2018, allowing for the department to use different methods of calculating state fund and self-insured liabilities when determining the annuity values of a pension based on the rates of mortality, disability, remarriage, and interest.

This rule making reduces the pension discount rate to 4.5 percent for the state fund and to 6.0 percent for self-insurance.

Citation of Rules Affected by this Order: Amending WAC 296-14-8810.

Statutory Authority for Adoption: RCW 51.04.020, 51.44.070(1), 51.44.080.

Adopted under notice filed as WSR 18-21-177 on October 23, 2018.

Number of Sections Adopted in Order to Comply with Federal Statute: New 0, Amended 0, Repealed 0; Federal Rules or Standards: New 0, Amended 0, Repealed 0; or Recently Enacted State Statutes: New 0, Amended 0, Repealed 0.

Number of Sections Adopted at the Request of a Non-governmental Entity: New 0, Amended 0, Repealed 0.

Number of Sections Adopted on the Agency's own Initiative: New 0, Amended 0, Repealed 0.

Number of Sections Adopted in Order to Clarify, Streamline, or Reform Agency Procedures: New 0, Amended 1, Repealed 0.

Number of Sections Adopted using Negotiated Rule Making: New 0, Amended 0, Repealed 0; Pilot Rule Making: New 0, Amended 0, Repealed 0; or Other Alternative Rule Making: New 0, Amended 0, Repealed 0.

Date Adopted: December 18, 2018.

Joel Sacks  
Director

AMENDATORY SECTION (Amending WSR 18-05-081, filed 2/20/18, effective 4/1/18)

**WAC 296-14-8810 Pension tables, pension discount rate and mortality tables.** (1) The department uses actuarially determined pension tables for calculating pension annuity values, required pension reserves, and actuarial adjustments to monthly benefit amounts.

(a) The department's actuaries calculate the pension tables based on:

(i) Mortality tables from nationally recognized sources;

(ii) The department's experience with rates of mortality, disability, and remarriage for annuity recipients; ~~((and))~~

(iii) A pension discount rate of ~~((6.1))~~ 4.5 percent for state fund pensions;

(iv) A pension discount rate of 6.0 percent for self-insured pensions, including the United States Department of Energy pensions; and

(v) The higher of the two pension discount rates so that pension benefits for both state fund and self-insured recipients use the same reduction factors for the calculation of death benefit options under RCW 51.32.067.

(b) The department's actuaries periodically investigate whether updates to the mortality tables relied on or the department's experience with rates of mortality, disability, and remarriage by its annuity recipients warrant updating the department's pension tables.

(2) To obtain a copy of any of the department's pension tables, contact the department of labor and industries actuarial services.

**WSR 19-01-097**  
**PERMANENT RULES**  
**DEPARTMENT OF**  
**LABOR AND INDUSTRIES**

[Filed December 18, 2018, 10:05 a.m., effective January 21, 2019]

Effective Date of Rule: January 21, 2019.

Purpose: Purpose of this rule making and its anticipated effects, including any changes in existing rules: This rule making is a result of the recent amendment to RCW 49.17-180 during the 2018 legislative session under chapter 128, Laws of 2018 (SHB 1953). This rule making adopts the recent amendment to RCW 49.17.180 which sets up an annual adjustment system retaining the current penalty maximums for all violations and the minimum for willful violations in statute unless required to be higher by the federal Occupational Safety and Health Act (OSHA). Below are the adopted amendments:

**WAC 296-900-140 Monetary penalties.**

- Added a definition for the term "Standard penalty." It reads, "... means any penalty that does not have an otherwise designated minimum amount."

**WAC 296-900-14005 Reasons for monetary penalties.**

- In the note, changed the reference from "MSDS" to "SDS" to be consistent with chapter 296-901 WAC.
- Added the word "standard" in the phrase addressing one hundred dollar civil penalties.
- Added language relating to willful violations to match the recent change to RCW 49.17.180. It reads, "Five thousand dollars per violation for all willful violations unless set to a specific higher amount by the federal OSHA under 29 C.F.R. 1903.15 and this state is required to equal the higher penalty amount to qualify as a state plan state."

**WAC 296-900-14010 Base penalties.**

- Added the word "standard" in the phrase addressing one hundred dollar civil penalties.
- Added language relating to the maximum statutory penalty for a serious violation to match the recent change to RCW 49.17.180. It reads, "The maximum statutory penalty for a serious violation will be the maximum civil penalty established by the federal OSHA under 29 C.F.R. 1903.15 or seven thousand dollars, whichever is more."
- Added links to the federal OSHA penalties, 29 C.F.R. 1903.15 and RCW 49.17.180.

**WAC 296-900-14015 Base penalty adjustments.**

- Added the word "standard" in the phrase addressing one hundred dollar civil penalties.
- Added language relating to the minimum penalty for willful violations to match the recent change to RCW 49.17.180. It reads, "The minimum penalty for willful violations is five thousand dollars per violation unless set to a specific higher amount by the federal OSHA under 29 C.F.R. 1903.15 and this state is required to equal the higher penalty amount to qualify as a state plan state."
- Added language relating to the maximum adjusted base penalty for a violation to match the recent change to RCW 49.17.180. It reads, "The maximum adjusted base

penalty for a violation will be the maximum civil penalty established by the federal OSHA under 29 C.F.R. 1903.15 or seven thousand dollars, whichever is more."

- Deleted the note relating to repeat, willful, egregious and failure to abate violations.

**WAC 296-900-14020 Increases to adjusted base penalties.**

- Added language relating to the maximum statutory penalty to match the recent change to RCW 49.17.180. It reads, "The maximum statutory penalty will be the maximum civil penalty established by the federal OSHA under 29 C.F.R. 1903.15 or seventy thousand dollars, whichever is more."
- Added language relating to the minimum statutory penalty for willful violations to match the recent change to RCW 49.17.180. It reads, "The minimum statutory penalty for willful violations is five thousand dollars per violation unless set to a specific higher amount by the federal OSHA under 29 C.F.R. 1903.15 and this state is required to equal the higher penalty amount to qualify as a state plan state."

Citation of Rules Affected by this Order: Amending WAC 296-900-140, 296-900-14005, 296-900-14010, 296-900-14015, and 296-900-14020.

Statutory Authority for Adoption: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060.

Adopted under notice filed as WSR 18-21-170 on October 23, 2018.

Number of Sections Adopted in Order to Comply with Federal Statute: New 0, Amended 5, Repealed 0; Federal Rules or Standards: New 0, Amended 0, Repealed 0; or Recently Enacted State Statutes: New 0, Amended 5, Repealed 0.

Number of Sections Adopted at the Request of a Non-governmental Entity: New 0, Amended 0, Repealed 0.

Number of Sections Adopted on the Agency's own Initiative: New 0, Amended 0, Repealed 0.

Number of Sections Adopted in Order to Clarify, Streamline, or Reform Agency Procedures: New 0, Amended 0, Repealed 0.

Number of Sections Adopted using Negotiated Rule Making: New 0, Amended 0, Repealed 0; Pilot Rule Making: New 0, Amended 0, Repealed 0; or Other Alternative Rule Making: New 0, Amended 0, Repealed 0.

Date Adopted: December 18, 2018.

Joel Sacks  
Director

**AMENDATORY SECTION** (Amending WSR 15-13-049, filed 6/9/15, effective 9/1/15)

**WAC 296-900-140 Monetary penalties.**

**Summary:**

**Employer responsibility:**

To pay monetary penalties if assessed.

**Contents:**

Reasons for monetary penalties

WAC 296-900-14005.

Base penalties

WAC 296-900-14010.

Base penalty adjustments

WAC 296-900-14015.

Increases to adjusted base penalties

WAC 296-900-14020.

**Definitions:**

- "Base penalty" means that penalty amount calculated for a violation by considering either specific statutory penalty amounts or the gravity of the violation.

- "Division" or "DOSH" means the division of occupational safety and health, Washington state department of labor and industries.

- "Gravity" for purposes of calculating a penalty, means the amount calculated by multiplying a violation's severity rate by its probability rate.

- "Inpatient hospitalization" means formal admission to the inpatient service of a hospital or an equivalent medical facility on an emergent basis for a work-related injury, or illness.

- "Monetary penalties" are fines assessed against an employer for violations of safety and health requirements.

- "Probability" means a number that describes the likelihood that an injury, illness, or disease will occur ranging from 1 (lowest) to 3 (highest).

- "Severity" for purposes of calculating a penalty, means the most serious injury, illness, or disease that could be reasonably expected to occur, ranging from 1 (lowest) to 3 (highest), because of a hazardous condition.

- "Standard penalty" means any penalty that does not have an otherwise designated minimum amount.

- "WISHA" means the Washington Industrial Safety and Health Act.

**AMENDATORY SECTION** (Amending WSR 15-13-049, filed 6/9/15, effective 9/1/15)

**WAC 296-900-14005 Reasons for monetary penalties.**

- DOSH **may** assess monetary penalties when a citation and notice is issued for any violation of safety and health rules or statutes.

- DOSH **will** assess monetary penalties under the following conditions:

- When a citation and notice is issued for a serious, willful, or egregious violation.

- When civil penalties are specified by statute as described in RCW 49.17.180.

**Note:** In addition to penalties specified by WISHA, there are penalties specified by other statutes, such as:

- Asbestos construction projects, RCW 49.26.016.

- Right to know (RTK)—(MSDS)) SDS, RCW 49.70.190.

- Right to know—Penalty for late payment, RCW 49.70.177.

- The minimum civil penalties assessed by DOSH are:
  - One hundred dollars for any standard penalty.
  - Two thousand five hundred dollars per violation for serious violations contributing to a fatality.

- Five thousand dollars per violation for all willful violations unless set to a specific higher amount by the federal Occupational Safety and Health Administration under 29

C.F.R. 1903.15 and this state is required to equal the higher penalty amount to qualify as a state plan state.

- Two hundred fifty dollars per day for asbestos good faith inspection (RCW 49.26.016 and 49.26.013).

**AMENDATORY SECTION** (Amending WSR 15-13-049, filed 6/9/15, effective 9/1/15)

**WAC 296-900-14010 Base penalties.**

• DOSH calculates the base penalty for a violation by considering the following:

- Specific amounts that are dictated by statute;

**OR**

- By assigning a weight to a violation, called "gravity."

Gravity is calculated by multiplying a violation's severity rate by its probability rate. Expressed as a formula:

$$\text{Gravity} = \text{Severity} \times \text{Probability}$$

**Note:** Most base penalties are calculated by the gravity method.

• Severity and probability are established in the following ways:

**Severity:**

- Severity rates are based on the most serious injury, illness, or disease that could be reasonably expected to occur because of a hazardous condition.

- Severity rates are expressed in whole numbers and range from 1 (lowest) to 3 (highest).

- Tables 3 and 4 are used to determine the severity rate for a violation.

**Table 3  
Severity - Serious Violations**

3	<ul style="list-style-type: none"> <li>• Death</li> <li>• Injuries involving permanent disability</li> <li>• Chronic, irreversible illness</li> </ul>
2	<ul style="list-style-type: none"> <li>• Disability of a limited nature</li> <li>• Injuries or reversible illnesses resulting in hospitalization</li> </ul>
1	<ul style="list-style-type: none"> <li>• Injuries or temporary, reversible illnesses resulting in serious physical harm</li> <li>• May require removal from exposure or supportive treatment without hospitalization for recovery</li> </ul>

**Table 4  
Severity - General Violations**

<b>General violation</b>
<ul style="list-style-type: none"> <li>• Conditions that could cause injury or illness to an employee but would not result in serious physical harm</li> </ul>

**Probability:**

**Definition:**

A probability rate is a number that describes the likelihood that an injury, illness, or disease will occur ranging from 1 (lowest) to 3 (highest). See Table 5.

- When determining probability, DOSH considers a variety of factors, depending on the situation, such as:

- Frequency and amount of exposure.
- Number of employees exposed.
- Instances, or number of times, the hazard is identified in the workplace.
- How close an employee is to the hazard, i.e., the proximity of the employee to the hazard.
- Weather and other working conditions.
- Employee skill level and training.
- Employee awareness of the hazard.
- The pace, speed, and nature of the task or work.
- Use of personal protective equipment.
- Other mitigating or contributing circumstances.

**Table 5  
Probability**

3	<ul style="list-style-type: none"> <li>• If the factors considered indicate the likelihood of injury or illness would be relatively high.</li> </ul>
2	<ul style="list-style-type: none"> <li>• If the factors considered indicate the likelihood of injury or illness would be moderate.</li> </ul>
1	<ul style="list-style-type: none"> <li>• If the factors considered indicate an injury or illness could occur, but the likelihood would be relatively low.</li> </ul>

- Table 6 is used to determine the dollar amount for each gravity-based penalty, unless otherwise specified by statute.

**Table 6  
Gravity-Based Penalty - Serious Violations  
Severity x Probability = Gravity**

9 High	\$7,000
6	\$6,000
4	\$4,000
3	\$3,000
2	\$2,000
1 Low	\$1,000

The minimum penalty for a standard serious violation = ~~(\$100)~~ one hundred dollars.

(A penalty is required by statute for a serious violation; where adjustments would result in a penalty below the minimum, the minimum will be applied.)

The maximum statutory penalty for a serious violation ~~(=\$7,000)~~ will be the maximum civil penalty established by the federal Occupational Safety and Health Administration under 29 C.F.R. 1903.15 or seven thousand dollars, whichever is more.

Links:

• Occupational Safety and Health Administration—OSHA penalties.

• Occupational Safety and Health Administration 29 C.F.R. 1903.15 Proposed penalties.

• RCW 49.17.180 Violations—Civil penalties.

**Table 7  
General Violations Penalty**

General violation (first time nonstatutory)	\$0
General violation base penalty	\$200

A penalty is not applied to first time general violations. The base penalty is used to calculate the penalty for willful, repeat, or failure to abate general violations.

**AMENDATORY SECTION** (Amending WSR 15-13-049, filed 6/9/15, effective 9/1/15)

**WAC 296-900-14015 Base penalty adjustments.**

• Tables 8 through 11 describe the various factors DOSH considers when adjusting a base penalty, and the effect on the fine.

- The minimum adjusted base penalty for any standard violation carrying a penalty is one hundred dollars.

- The minimum adjusted penalty for serious violations contributing to a fatality is two thousand five hundred dollars.

- The minimum penalty for willful violations is five thousand dollars per violation unless set to a specific higher amount by the federal Occupational Safety and Health Administration under 29 C.F.R. 1903.15 and this state is required to equal the higher penalty amount to qualify as a state plan state.

- The maximum adjusted base penalty for a violation (~~is seven thousand dollars~~) will be the maximum civil penalty established by the federal Occupational Safety and Health Administration under 29 C.F.R. 1903.15 or seven thousand dollars, whichever is more.

• No adjustments are made to minimum penalty amounts specified by statute.

**(Note:** Repeat, willful, egregious, or failure to abate (failure to correct) penalty adjustments can exceed seven thousand dollars. See Tables 12 through 14 in WAC 296-900-14020 for those penalties.)

**Table 8  
Employer Inspection History**

History Assessment	Penalty Adjustment
Above Average: Previous inspections with less than one serious violation on average and no willful, repeat, or failure to abate violations.	-10%
Average: No previous inspections or inspections with less than two serious violations on average.	None

History Assessment	Penalty Adjustment
Below Average: Previous inspections with willful, repeat, or failure to abate violations or inspections with two or more serious violations on average.	+10%

- History is based on the prior three years statewide.
- No reduction is given for violations classified as willful, repeat, failure to abate, or violations contributing to an inpatient hospitalization with an assigned gravity of 6 or 9 or any violations contributing to a fatality.

**Table 9  
Good Faith**

Good Faith	Penalty Adjustment
Good	-20%
Average	None
Below Average	+20%

Based on:

- Evidence of an overall safety and health program, including a written accident prevention program (APP), other required written programs, training, etc.
- Efforts to fully communicate safety and health policies.
- Employees are clearly involved in the safety and health programs.
- Management's commitment at all levels is apparent.
- Employer's injury and illness rate.

No reduction is given for violations classified as willful, repeat, or failure to abate.

**Table 10  
Abatement Quick-Fix Reduction**

Immediate correction of hazard provided such corrective action is substantial and not temporary or superficial	-15%
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No reduction is given for:

- Violations classified as willful, repeat, or failure to abate.
- Violations contributing to an inpatient hospitalization or fatality, or to any incidents resulting in serious injuries to employees.
- Blatant violations that are easily corrected or "abated" due to the short-term duration of work at a specific location.

**Table 11  
Size of Workforce**

Number of Employees	Penalty Adjustment
1 - 10	-70%
11 - 25	-60%
26 - 100	-40%
101 - 250	-20%
251 or more	None

Based on workforce size nationwide.

**AMENDATORY SECTION** (Amending WSR 15-13-049, filed 6/9/15, effective 9/1/15)

**WAC 296-900-14020 Increases to adjusted base penalties.**

• Tables 12 through 14 describe circumstances where an increase may be applied by DOSH to an adjusted base penalty.

**Table 12**

**Repeat Violations**

(increases the adjusted base penalty, after willful assessment)

1 <sup>st</sup> time x 2
2 <sup>nd</sup> time x 5
3 <sup>rd</sup> time x 8
4 <sup>th</sup> time x 12
5 <sup>th</sup> time x 15

(\*) History is based on the prior three years.

(\*) The maximum statutory penalty ((=~~\$70,000~~)) will be the maximum civil penalty established by the federal Occupational Safety and Health Administration under 29 C.F.R. 1903.15 or seventy thousand dollars, whichever is more.

Note: For repeat willful violations the repeat adjustment is applied after the willful assessment.

**Table 13**

**Willful Violations**

Multiply the adjusted based penalty by 10.
<ul style="list-style-type: none"> <li>No reduction is given for good faith, history, or abatement quick-fix.</li> </ul>

The minimum statutory penalty ((=~~\$5,000~~)) for willful violations is five thousand dollars per violation unless set to a specific higher amount by the federal Occupational Safety and Health Administration under 29 C.F.R. 1903.15 and this state is required to equal the higher penalty amount to qualify as a state plan state.

The maximum statutory penalty ((=~~\$70,000~~)) will be the maximum civil penalty established under the federal Occupational Safety and Health Administration under 29 C.F.R. 1903.15 or seventy thousand dollars, whichever is more.

**Table 14**

**Failure to Abate**

Increases the adjusted base penalty:
Adjusted base penalty is multiplied by the number of calendar days past the correction date, with a minimum of five days.
<ul style="list-style-type: none"> <li>No reduction in the base penalty is given for good faith, history, or abatement quick-fix.</li> </ul>

The maximum statutory penalty ((~~cannot exceed \$7,000~~)) will be the maximum civil penalty established by the federal Occupational Safety and Health Administration under 29 C.F.R. 1903.15 or seven thousand dollars, whichever is more, per day if violation is not corrected.

**Table 15**

**Egregious Violation**

<p>If the violation was willful and at least one of the following:</p> <ul style="list-style-type: none"> <li>The violations resulted in worker fatalities, a worksite catastrophe, or large number of injuries or illnesses.</li> <li>The violation resulted in persistently high rates of worker injuries or illnesses.</li> <li>The employer has an extensive history of prior violations.</li> <li>The employer has intentionally disregarded its safety and health responsibilities.</li> <li>The employer's conduct taken as a whole amounts to clear bad faith in the performance of his/her duties.</li> <li>The employer has committed a large number of violations so as to undermine significantly the effectiveness of any safety and health program that might be in place.</li> </ul>	<ul style="list-style-type: none"> <li>The adjusted base penalty may be increased as follows:  With a separate penalty issued for each instance, the employer fails to follow a specific requirement.</li> </ul>
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**Table 16**

**Penalty Calculation Method**

All penalty adjustments factors are summed.
<ul style="list-style-type: none"> <li>History: Up to a 10% reduction</li> <li>Good Faith: Up to a 20% reduction</li> <li>Quick-Fix: Up to a 15% reduction</li> <li>Size: Up to a 70% reduction</li> </ul>

**WSR 19-01-102**  
**PERMANENT RULES**  
**SECRETARY OF STATE**

[Filed December 18, 2018, 11:23 a.m., effective January 18, 2019]

Effective Date of Rule: Thirty-one days after filing.

Purpose: New WAC are proposed to implement risk-limiting election audits as required by HB 2406. Additional WAC amendments cover declarations of candidacy, filing fee petitions, political party preference, ballot format for candidates, military and overseas voter registrations, special absentee ballots, preprocessing of ballots, definitions for duplication and resolution of ballots and procedures, clarification procedures regarding ballot signatures, clarification of SB 6058 regarding write-in candidates.

Citation of Rules Affected by this Order: New WAC 434-261-114, 434-261-115, 434-261-116, 434-261-117, 434-261-118 and 434-261-119; and amending WAC 434-215-012, 434-215-015, 434-215-025, 434-215-120, 434-215-180, 434-230-045, 434-230-085, 434-235-020, 434-250-030, 434-250-110, 434-261-005, 434-261-050, 434-261-070, 434-261-100, 434-262-020, 434-262-030, 434-262-132, and 434-262-160.

Statutory Authority for Adoption: RCW 29A.04.611.

Other Authority: RCW 29A.24.091, 29A.24.311, 29A.60.021, 29A.60.185, 29A.60.170, 29A.60.110, 29A.60.235.

Adopted under notice filed as WSR 18-22-113 on November 6, 2018.

Number of Sections Adopted in Order to Comply with Federal Statute: New 0, Amended 0, Repealed 0; Federal Rules or Standards: New 0, Amended 0, Repealed 0; or Recently Enacted State Statutes: New 6, Amended 7, Repealed 0.

Number of Sections Adopted at the Request of a Non-governmental Entity: New 0, Amended 0, Repealed 0.

Number of Sections Adopted on the Agency's own Initiative: New 0, Amended 0, Repealed 0.

Number of Sections Adopted in Order to Clarify, Streamline, or Reform Agency Procedures: New 10, Amended 0, Repealed 1.

Number of Sections Adopted using Negotiated Rule Making: New 0, Amended 0, Repealed 0; Pilot Rule Making: New 0, Amended 0, Repealed 0; or Other Alternative Rule Making: New 0, Amended 0, Repealed 0.

Date Adopted: December 18, 2018.

Mark Neary  
Assistant Secretary of State

AMENDATORY SECTION (Amending WSR 16-13-063, filed 6/13/16, effective 7/14/16)

WAC 434-215-012 Declaration of candidacy. Declarations of candidacy filed either in person or by mail shall be in substantially the following form:

((

# Washington State Declaration of Candidacy

<b>candidate information</b> <i>as registered to vote</i>	first name	middle	last
	residential address		city / zip
	date of birth	email address	phone number

<b>campaign contact information</b> <i>for publication</i>	campaign phone	campaign email
	mailing address (if different from residential address)	city / zip
	campaign website	

<b>ballot information</b>	jurisdiction	office name	position number
	exact name I would like printed on the ballot		
	political party I prefer to be printed on the ballot, if filing for partisan office:		
	<input type="radio"/> (Prefers <input type="text"/> Party) <input type="radio"/> (States No Party Preference)		

<b>filing fee</b>	<input type="radio"/> The office has no filing fee
	<input type="radio"/> A filing fee of \$ _____ accompanies the declaration of candidacy
	<input type="radio"/> I lack sufficient funds and submit a filing fee petition in lieu of the filing fee under RCW 29A.24.091

<b>oath</b>	I declare that the above information is true, that I am a registered voter residing at the address listed above, that I am a candidate for the office listed above, and that, at the time of filing this declaration, I am legally qualified to assume office.	
	I swear, or affirm, that I will support the Constitution and laws of the United States, and the Constitution and laws of the State of Washington.	
	sign here	date here

<b>for office use only</b>	submission date	voter registration number
	office code	fee

12/2018

))

# Washington State Declaration of Candidacy

**candidate information**  
*as registered to vote*

first name	middle	last
residential address		city / zip
date of birth	email address	phone number

**campaign contact information**  
*for publication*

campaign phone	campaign email
mailing address (if different from residential address)	city / zip
campaign website	

**ballot information**

jurisdiction	office name	position number
exact name I would like printed on the ballot		
political party I prefer to be printed on the ballot, if filing for partisan office:		
<input type="radio"/> (Prefers <input type="text"/> Party)		
<input type="radio"/> (States No Party Preference)		

**filing fee**

The office has no filing fee  
 A filing fee of \$ \_\_\_\_\_ accompanies the declaration of candidacy  
 I lack sufficient funds and submit a filing fee petition in lieu of the filing fee under RCW 29A.24.091

**oath**

I declare that the above information is true, that I am a registered voter residing at the address listed above, that I am a candidate for the office listed above, and that, at the time of filing this declaration, I am legally qualified to assume office.

I swear, or affirm, that I will support the Constitution and laws of the United States, and the Constitution and laws of the State of Washington.

sign here	date here
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**for office use only**

submission date	voter registration number
office code	fee

10/2018

The filing officer must provide a paper or electronic copy of the filed declaration of candidacy to the candidate and to the public disclosure commission.

AMENDATORY SECTION (Amending WSR 16-13-063, filed 6/13/16, effective 7/14/16)

WAC 434-215-015 Write-in declaration of candidacy. Declarations of candidacy filed either in person or by mail shall be in substantially the following form:

((

### Washington State Declaration of Write-in Candidacy

<b>candidate information</b> <i>as registered to vote</i>	first name	middle	last
	residential address		city / zip
	date of birth	email address	phone number
<b>campaign contact information</b> <i>for publication</i>	campaign phone		campaign email
	mailing address (if different from residential address)		city / zip
	campaign website		
<b>office information</b>	I am a write-in candidate for: <input type="radio"/> Primary <input type="radio"/> General		
	jurisdiction	office	position number
<b>ballot information</b> <i>if qualifying</i>	exact name I would like printed on the ballot if I qualify		
	political party I prefer to be printed on the ballot, if filing for partisan office:		
	<input type="radio"/> (Prefers <input type="text"/> Party) <input type="radio"/> (States No Party Preference)		
<b>filing fee</b>	<input type="radio"/> The office has no filing fee		
	<input type="radio"/> A filing fee of \$ _____ accompanies the declaration of candidacy		
	<input type="radio"/> I lack sufficient funds and submit a filing fee petition in lieu of the filing fee under RCW 29A.24.091		
<b>oath</b>	I declare that the above information is true, that I am a registered voter residing at the address listed above, that I am a candidate for the office listed above, and that, at the time of filing this declaration, I am legally qualified to assume office.		
	I swear, or affirm, that I will support the Constitution and laws of the United States, and the Constitution and laws of the State of Washington.		
<b>for office use only</b>	sign here	date here	
	submission date	voter registration number	
	office code	fee	

12/2008

))

# Washington State Declaration of Write-in Candidacy

<b>candidate information</b> <i>as registered to vote</i>	first name	middle	last
	residential address		city / zip
	date of birth	email address	phone number

<b>campaign contact information</b> <i>for publication</i>	campaign phone	campaign email
	mailing address (if different from residential address)	city / zip
	campaign website	

<b>ballot information</b> <i>if qualifying</i>	I am a write-in candidate for: <input type="radio"/> Primary <input type="radio"/> General		
	jurisdiction	office name	position number
	exact name I would like printed on the ballot if I qualify		
	political party I prefer to be printed on the ballot, if filing for partisan office:		
	<input type="radio"/> (Prefers <input type="text"/> Party) <input type="radio"/> (States No Party Preference)		

<b>filing fee</b>	<input type="radio"/> The office has no filing fee if filed 19+ days before election day
	<input type="radio"/> A filing fee of \$ _____ accompanies the declaration of candidacy (up to 18 days before election day.)
	<input type="radio"/> I lack sufficient funds and submit a filing fee petition in lieu of the filing fee under RCW 29A.24.091

<b>oath</b>	I declare that the above information is true, that I am a registered voter residing at the address listed above, that I am a candidate for the office listed above, and that, at the time of filing this declaration, I am legally qualified to assume office.	
	I swear, or affirm, that I will support the Constitution and laws of the United States, and the Constitution and laws of the State of Washington.	
	sign here	date here

<b>for office use only</b>	submission date	voter registration number
	office code	fee

10/2018

AMENDATORY SECTION (Amending WSR 11-24-064, filed 12/6/11, effective 1/6/12)

**WAC 434-215-180 Write-in candidates.** A candidate desiring to file as a write-in candidate must file the write-in declaration of candidacy no later than ~~((eighteen days before election day, the deadline in RCW 29A.40.070 that ballots~~

~~must be mailed~~) 8:00 p.m. on election day. If a write-in declaration of candidacy is filed with the filing officer after the close of the regular candidate filing period per RCW 29A.24.050 and more than eighteen days before a primary or election, no filing fee is required.

Candidates filing a write-in declaration of candidacy on or after the eighteenth day before a primary or election must pay a filing fee at the time of filing the declaration. Offices with a fixed annual salary of more than one thousand dollars must pay a filing fee equal to one percent of the annual salary at the time of the regular filing period as per RCW 29A.24.-050. For all other offices, a filing fee of twenty-five dollars is required.

AMENDATORY SECTION (Amending WSR 14-06-040, filed 2/26/14, effective 3/29/14)

**WAC 434-215-025 Filing fee petitions.** (1) When a candidate submits a filing fee petition in lieu of his or her filing fee, as authorized by RCW 29A.24.091, voters eligible to vote on the office in the general election are eligible to sign the candidate's filing fee petition.

(2) A candidate submitting a filing fee petition in the place of a filing fee may not file the declaration of candidacy electronically.

(3) A candidate submitting a filing fee petition must submit all signatures when filing the declaration of candidacy. The candidate cannot supplement the signatures at a later date.

(4) The filing officer shall verify the candidate has submitted sufficient number of valid signatures equal to the filing fee. The first valid signature of a voter counts toward the number of signatures required. Duplicate signatures are invalid.

AMENDATORY SECTION (Amending WSR 08-15-052, filed 7/11/08, effective 8/11/08)

**WAC 434-215-120 Political party preference by candidate for partisan office.** (1) On a declaration of candidacy, a candidate for partisan congressional, state, or county office may state his or her preference for a political party, or not state a preference. The candidate may use up to ~~(sixteen)~~ eighteen characters for the name of the political party. A candidate's party preference, or the fact that the candidate states no preference, must be printed with the candidate's name on the ballot and in any voters' pamphlets printed by the office of the secretary of state or a county auditor's office.

(2) If a candidate does not indicate a party that he or she prefers, then the candidate has stated no party preference and is listed as such on the ballot and in any voters' pamphlets.

(3) The filing officer may not print on the ballots, in a voters' pamphlet, or other election materials a political party name that is obscene. If the name of the political party provided by the candidate would be considered obscene, the filing officer may petition the superior court pursuant to RCW 29A.68.011 for a judicial determination that the party name be edited to remove the obscenity, or rejected and replaced with "states no party preference."

(4) A candidate's preference may not imply that the candidate is nominated or endorsed by the party, or that the party approves of or associates with that candidate. If the name of the political party provided by the candidate implies that the candidate is nominated or endorsed by a political party, or that a political party approves of or associates with that candidate, the filing officer may petition the superior court pur-

suant to RCW 29A.68.011 for a judicial determination that the party name be edited, or rejected and replaced with "states no party preference."

AMENDATORY SECTION (Amending WSR 17-12-090, filed 6/6/17, effective 7/7/17)

**WAC 434-230-045 Candidate format.** (1) For each office or position, the names of all candidates shall be listed together. If the office is on the primary election ballot, no candidates skip the primary and advance directly to the general election.

(2)(a) On the primary election ballot, candidates shall be listed in the order determined by lot.

(b) On the general election ballot, the candidate who received the highest number of votes in the primary shall be listed first, and the candidate who received the second highest number of votes in the primary shall be listed second. If the two candidates who received the most votes in the primary received exactly the same number of votes, the order in which their names are listed on the general election ballot shall be determined by lot.

(c) The political party that each candidate prefers is irrelevant to the order in which the candidates appear on the ballot.

(3) Candidate names shall be printed in a type style and point size that can be read easily. If a candidate's name exceeds the space provided, the election official shall take whatever steps necessary to place the name on the ballot in a manner which is readable. These steps may include, but are not limited to, printing a smaller point size or different type style.

(4) For partisan office:

(a) If the candidate stated his or her preference for a political party on the declaration of candidacy, that preference shall be printed below or to the right of the candidate's name, with parentheses and the first letter of each word or abbreviation capitalized. Acronyms shall be printed in all capital letters with or without periods. For example:

John Smith  
(Prefers Example Party)  
John Smith (Prefers ABC Party)

(b) If the candidate did not state his or her preference for a political party, that information shall be printed below or to the right of the candidate's name, with parentheses and the first letter of each word capitalized, as shown in the following example:

John Smith  
(States No Party Preference)

(c) The party preference line for each candidate may be in smaller point size or indented.

(d) The same party preference information shall be printed on both primary and general election ballots.

(5) If the office is nonpartisan, only the candidate's name shall appear. Neither "nonpartisan" nor "NP" shall be printed with each candidate's name.

(6) The law does not allow nominations or endorsements by interest groups, political action committees, political par-

ties, labor unions, editorial boards, or other private organizations to be printed on the ballot.

#### REPEALER

The following section of the Washington Administrative Code is repealed:

WAC 434-230-085 Candidate who qualifies for more than one office.

AMENDATORY SECTION (Amending WSR 14-06-040, filed 2/26/14, effective 3/29/14)

**WAC 434-235-020 Voter registration.** (1) A service or overseas voter may register to vote by providing:

- (a) A voter registration application issued by the state of Washington;
- (b) A federal post card application issued by the federal voting assistance program;
- (c) A federal write-in absentee ballot issued by the federal voting assistance program;
- (d) A national mail voter registration form issued by the election assistance commission; or
- (e) A ballot with a valid signature on the ballot declaration.

(2) Pursuant to RCW 29A.40.010 and 29A.40.091, a service or overseas voter does not have to be registered in order to request a ballot. Consequently, a service or overseas voter who is not already registered in Washington may request a ballot and register after the registration deadlines of RCW 29A.08.140 have passed. A service or overseas voter who is already registered to vote in Washington may not transfer or update a registration after the deadlines in RCW 29A.08.140 have passed.

(a) If the voter is not currently registered, the county auditor must register the voter immediately. The voter must be flagged in the voter registration system as a service or overseas voter.

(b) A service or overseas voter must use his or her most recent residential address in Washington, or the most recent residential address in Washington of a family member.

(c) If the county auditor is unable to precinct the voter due to a missing or incomplete residential address on the application, the county auditor must attempt to contact the voter to clarify the application.

(i) If, in the judgment of the county auditor, there is insufficient time to correct the application before the next election or primary, the county auditor must issue the ballot as if the voter had listed the county auditor's office as his or her residence. A special precinct for this purpose may be created. The only offices and issues that may be tabulated are those common to the entire county and congressional races based on the precinct encompassing the auditor's office.

(ii) After the election or primary, the county auditor must place the voter on inactive status and send the voter a confirmation notice to obtain the voter's correct residential address.

(d) A service or overseas voter is not required to provide a driver's license number, Social Security number or other form of identification as required by RCW 29A.08.107.

(3) The county auditor must offer a service or overseas voter the option of receiving blank ballots by email or postal mail. This requirement is satisfied if the service or overseas voter registers on an application that offers electronic ballot delivery as an option, or if the voter expresses a preference when registering, updating a registration, or requesting a ballot. The county auditor must attempt to contact the voter by phone, email, postal mail, or other means. If the voter does not indicate a preference or does not respond, the county auditor must send ballots by postal mail.

(4) The county auditor shall keep the voter on service or overseas status until the county auditor receives verification the voter no longer qualifies as a service or overseas voter under WAC 434-235-010.

(5) Status as a service or overseas voter is voter registration information and may only be disclosed if listed as public information in RCW 29A.08.710.

AMENDATORY SECTION (Amending WSR 11-24-064, filed 12/6/11, effective 1/6/12)

**WAC 434-250-030 Special absentee ballots.** (1) As authorized by RCW 29A.40.050, requests for a special absentee ballot must be made in writing and each county auditor must provide the applications. The form must include:

- (a) A space for the voter to print his or her name and address where registered to vote;
- (b) A postal or mailing address;
- (c) A space for an overseas or service voter not registered to vote in Washington to indicate his or her last residential address in Washington;
- (d) A checkbox indicating that the voter will be unable to vote and return a regular ballot by normal delivery within the period provided for regular ballots; and
- (e) A checkbox requesting that a regular ballot be forwarded as soon as possible.

(2) The county auditor shall honor any application for a special absentee ballot that is in substantial compliance with the provisions of this section. Any application for a special absentee ballot received more than ninety days prior to a primary or general election may be either returned to the applicant with the explanation that the request is premature or held by the auditor until the appropriate time (~~and then processed~~) for processing. When regular mail ballots are available, a signed request for a special absentee ballot is not required.

(3) Upon receipt of a special absentee ballot request, a regular ballot is mailed if available. If regular ballots are not available, the county auditor shall immediately send a special absentee ballot containing the known offices and measures scheduled to appear on the ballot; space for the voter to write in the name of any eligible candidate for each office and vote on any measure; and a list of any known candidates (~~who have filed~~) and issues referred to the ballot.

(4) If a regular ballot is returned, the special ballot is not counted.

(5) Write-in votes on special ballots are counted in the same manner as other valid write-in votes for declared candidates.

AMENDATORY SECTION (Amending WSR 18-10-003, filed 4/19/18, effective 5/20/18)

**WAC 434-250-110 Processing ballots.** (1) "Initial processing" means all steps taken to prepare ballots for tabulation. Initial processing includes, but is not limited to:

- (a) Verification of the signature and postmark on the ballot declaration;
- (b) Removal of the security envelope or sleeve from the return envelope;
- (c) Removal of the ballot from the security envelope;
- (d) Manual inspection for damage, write-in votes, and incorrect or incomplete marks;
- (e) Duplication of ~~((damaged and write-in))~~ ballots;
- (f) Digital scanning and resolution of ballots ((on a digital scan voting system)) by batch where tabulation does not take place; and
- (g) Other preparation of ballots for final processing.

(2) "Final processing" means the reading of ballots by an optical scan voting system for the purpose of producing returns of votes cast, but does not include tabulation.

(3) "Tabulation" means the production of returns of votes cast for candidates or ballot measures in a form that can be read by a person, whether as precinct totals, partial cumulative totals, or final cumulative totals.

(4) Prior to initial processing of ballots, the county auditor shall notify the county chair of each major political party of the time and date on which processing shall begin, and shall request that each major political party appoint official observers to observe the processing and tabulation of ballots. If any major political party has appointed observers, such observers may be present for initial processing, final processing, or tabulation, if they so choose, but failure to appoint or attend shall not preclude the processing or tabulation of ballots.

(5) Initial processing of voted ballots may begin as soon as voted ballots are received. Initial processing includes digital scanning and resolution of ballots where tabulation does not take place. All ballots must be kept in secure storage until final processing. Secure storage must employ the use of numbered seals and logs, or other security measures which will detect any inappropriate or unauthorized access to the secured ballot materials when they are not being prepared or processed by authorized personnel. The county auditor must ensure that all security envelopes and return envelopes are empty, either by a visual inspection of the punched hole to confirm that no ballots or other materials are still in the envelopes, or by storing the envelopes with a tie, string, or other object through the holes.

(6) Final processing of voted ballots, which may include scanning ballots on an optical scan voting system, may begin after 7:00 a.m. on the day of the election. Final processing may begin after 7:00 a.m. the day before the election if the county auditor follows a security plan that has been submitted by the county auditor and approved by the secretary of state to prevent tabulation until after 8:00 p.m. on the day of the election.

(7) Tabulation may begin after 8:00 p.m. on the day of the election.

(8) In counties tabulating ballots on an optical scan vote tallying system, the vote tallying system must reject all overvotes and blank ballots.

(a) All rejected ballots shall be outstacked for additional manual inspection.

(b) The outstacked ballots shall be inspected in a manner similar to the original inspection with special attention given to stray marks, erasures, and other conditions that may have caused the vote-tallying device to misread and reject the ballot.

(c) If inspection reveals that a ballot must be duplicated in order to be read correctly by the vote tallying system, the ballot must be duplicated.

AMENDATORY SECTION (Amending WSR 11-24-064, filed 12/6/11, effective 1/6/12)

**WAC 434-261-005 Definitions.** (1) "Manual inspection" is the process of inspecting each voter response position on each voted ballot. Inspection is performed as part of the initial processing;

(2) ~~((Duplicating ballots))~~ Ballot duplication is the process of making a true copy of valid votes from ~~((ballots that may not be properly counted by the vote tallying system. Ballots may be duplicated on blank ballots or by making changes on an electronic image of the ballot. The original ballot may not be altered in any way))~~ a physically damaged ballot or a ballot that is unreadable or uncountable by the tabulation system onto a paper or electronic blank ballot to ensure the ballot may be correctly tabulated by the tabulation system. The original ballot may not be altered. Teams of two or more people working together must duplicate ballots according to voter intent as per WAC 434-261-086. A log of duplicated ballots must be signed by the two or more people who duplicated the ballots;

(3) "Ballot resolution" is the process of making changes on a voted electronic ballot image to ensure the ballot is tabulated according to the voter's intent. The changes must reflect the voter intent as per WAC 434-261-086 and the original ballot may not be altered. Changes must be made by teams of two or more people working together. A log of resolved ballots must be signed by the two or more people resolving the ballots;

(4) "Readable ballot" is any ballot that the certified vote tallying system can accept and read as the voter intended without alteration, and that meets the standards of the county canvassing board subject to the provisions contained in this title;

~~((4))~~ (5) "Unreadable ballot" is any ballot that cannot be read by the vote tallying system as the voter intended without alteration. ~~((Unreadable ballots may include, but not be limited to, ballots with damage, write-in votes, incorrect or incomplete marks, and questions of voter intent.))~~ Unreadable ballots may subsequently be counted as provided by these administrative rules;

~~((5))~~ (6) "Valid signature" on a ballot declaration for a registered voter eligible to vote in the election is:

(a) A signature verified against the signature in the voter registration file; or

(b) A mark witnessed by two people.

~~((6))~~ (7) "Overvote" is votes cast for more than the permissible number of selections allowed in a race or measure. An overvoted race or measure does not count in the final tally of that race or measure. Example of an overvote would be voting for two candidates in a single race with the instruction, "vote for one(~~(=~~

~~(7))";~~

(8) "Undervote" is no selections made for a race or measure(~~(=~~

~~(8))";~~

(9) "Election observers" means those persons designated by the county political party central committee chairperson to observe the counting of ballots and related elections procedures(~~(=~~

~~(9))";~~

(10) "Seal log" is a log documenting each time a numbered seal is attached or removed from a ballot container. The log must include the seal number, date, and identifying information of persons attaching or removing the seal. Following certification of the election, the seal log must include documentation as to why the seal was removed from a ballot container.

AMENDATORY SECTION (Amending WSR 14-06-040, filed 2/26/14, effective 3/29/14)

**WAC 434-261-100 Ballot duplication procedures.** (1)

If a ballot is damaged, unreadable, uncountable, or unable to be resolved by the tabulation system, a team of two or more people working together must duplicate ballots to reflect the voter's intent according to WAC 434-261-086. A different team of two or more people working together must audit every duplicated ballot to verify the ballots were duplicated correctly. The voter's original ballot may not be altered. The county auditor shall tabulate the duplicate ballot.

If voter intent is not clear, the ballot must be referred to the canvassing board. When duplicating ballots, the county auditor shall take the following steps to create and maintain an audit trail of the action taken:

(a) Each original ballot and duplicate ballot must be assigned the same unique control number, with the number being marked upon the face of each ballot, to ensure that each duplicate ballot may be tied back to the original ballot;

(b) A log must be kept of the ballots duplicated, which must at least include:

(i) The control number of each original ballot and the corresponding duplicate ballot;

(ii) The initials of at least two people who participated in the duplication of each ballot; and

(iii) The total number of ballots duplicated.

Original and duplicate ballots must be kept in secure storage at all times, except during duplication, inspection by the canvassing board, or tabulation.

(2) Written procedures shall be established detailing the situations in which ballots may be duplicated. These procedures shall be included as a part of the county canvassing board manual.

~~((2))~~ (3) If a county uses an automated duplication program, only votes appearing in a human-readable form on the original ballot may be duplicated onto a machine-readable

ballot. The human-readable votes on the original ballot must be compared to the votes printed on the duplicated ballot to ensure that the votes are duplicated accurately. If a human-readable version of any races or ballot pages of the original ballot are not returned or available, votes in those races may not be duplicated or counted.

AMENDATORY SECTION (Amending WSR 12-14-074, filed 7/2/12, effective 8/2/12)

**WAC 434-261-050 Unsigned ballot declaration or mismatched signatures.** (1) If a voter neglects to sign a ballot declaration, signs with a mark and fails to have two witnesses attest to the signature, or signs but the signature on the ballot declaration does not match the signature on the voter registration record, the county auditor shall notify the voter by first class mail of the correct procedures for curing the signature. If the ballot is received during the last three business days before the final meeting of the canvassing board, or the voter has been notified by first class mail and has not responded by the last three business days before the final meeting of the canvassing board, the county auditor must attempt to notify the voter by telephone using information in the voter registration record.

(2) If the voter neglects to sign, or signs with a mark and fails to have two witnesses attest to the signature, the voter must either:

(a) Appear in person and sign the declaration no later than the day before certification of the primary or election; or

(b) Sign a copy of the declaration, or mark the declaration in front of two witnesses, and return it to the county auditor no later than the day before certification of the primary or election.

(3) If the signature on the declaration does not match the signature on the voter registration record, the voter must either:

(a) Appear in person and sign a new registration form no later than the day before certification of the primary or election. The updated signature provided on the registration form becomes the signature in the voter registration record for the current election and future elections; or

(b) Sign a signature update form that includes both the ballot declaration required by WAC 434-230-015 and the voter registration oath required by RCW 29A.08.230, and return it to the county auditor no later than the day before certification of the primary or election. The signature on the signature update form must match the signature on the returned ballot declaration. The signature provided on the signature update form becomes the signature in the voter registration record for the current election and future elections.

(4)(a) If the signature on the declaration does not match the signature on the registration record because the last name is different, the ballot may be counted as long as the first name and handwriting are clearly the same. If it appears that the voter has changed his or her name, and the information required under RCW 29A.08.440 to complete a name change is not provided or is illegible, the county auditor shall send the voter a change-of-name form under RCW 29A.08.440 and direct the voter to complete the form.

(b) If the signature on the ballot declaration does not match the signature on the registration record because the voter signed with a middle name, nickname, or initials, the ballot may be counted as long as the last name and handwriting are clearly the same.

(5) If the name on the signature does not match the printed name, and the signature on the ballot declaration does not match the signature on the voter registration record, because the ballot was signed by another registered voter, the ballot may be counted for the registered voter who actually signed the ballot declaration if:

(a) The voter who signed the declaration can be identified;

(b) The signature on the declaration matches the signature on the voter registration record; and

(c) The voter who signed the declaration has not returned another ballot.

The county auditor may only count the races and measures for which the voter who signed the declaration is eligible to vote.

(6) Disposition of other ballot signature circumstances:

(a) Ballot signed by a voter's signature stamp. The county auditor shall accept the signature stamp if it is accompanied by the signatures of two witnesses. Without the witness signatures, the county auditor shall process the ballot in the same manner as an unsigned ballot.

(b) Ballot declaration signed by a different voter and that voter has already submitted a ballot. If the county auditor receives a ballot where the ballot declaration is signed with the signature of a person who has previously submitted a ballot, the county auditor shall refer the ballot to the canvassing board for rejection. If the ballot was identified by staff on or before election day, the county auditor must attempt to contact the voter to whom the ballot was issued by phone, email, or if time allows, by mail and provide the voter a replacement ballot.

(7) If it is determined that the signature on a ballot declaration does not match the signature on the registration record and, prior to 8:00 p.m. on election day, the registered voter asserts that the signature on the ballot declaration is not his or her signature, the voter may be provided the opportunity to vote a replacement ballot.

~~((7))~~ (8) A voter may not cure a missing or mismatched signature for purposes of counting the ballot in a recount.

~~((8))~~ (9) A record must be kept of all ballots with missing and mismatched signatures. The record must contain the date on which the voter was contacted or the notice was mailed, as well as the date on which the voter subsequently submitted a signature to cure the missing or mismatched signature. That record is a public record under chapter 42.56 RCW and may be disclosed to interested parties on written request.

AMENDATORY SECTION (Amending WSR 17-12-090, filed 6/6/17, effective 7/7/17)

**WAC 434-261-070 Manual inspection of ballots.** (1) All voting positions on voted ballots shall be manually inspected on both sides of the ballot to determine whether the ballot is readable by the vote tabulating system. The county

auditor must ensure that write-in votes are tabulated (~~(correctly)~~) according to RCW 29A.60.021, consistent with the voter's intent. Ballots must be inspected for overvotes, undervotes, and write-in votes prior to tabulation. This manual inspection is a required part of processing ballots.

(2) The state of Washington is a voter intent state. When a voter's choice or intention can be determined, that vote shall be counted. If the manual inspection process detects any physically damaged ballots, unreadable ballots which might not be correctly counted by the tabulating equipment, or marks that differ from those specified in the voting instructions, such ballots may be duplicated or resolved, if necessary, and counted according to the statewide standards on what is a vote, as provided in WAC 434-261-086. The county canvassing board may authorize the county auditor to duplicate ballots that may be unreadable or uncountable by the tabulating system. Write-in votes without a readable mark in the target area must be (~~(duplicated or resolved)~~) processed according to the statewide standards on what is a vote found in WAC 434-261-086. The county canvassing board shall make the final determination of voter intent for ballots not addressed in the statewide standards on what is a vote.

## POST-ELECTION DAY RISK-LIMITING AUDITS

### NEW SECTION

**WAC 434-261-114 Definitions.** As used in this rule, unless stated otherwise:

(1) "Ballot manifest" means a report that describes in detail how the ballots are organized and stored, including identification of each batch of ballots by the voting system batch number, as well as the number of ballots in each batch.

(2) "Ballot polling audit" means a type of risk-limiting audit in which the audit board examines and reports to the secretary of state voter markings for a particular race on ballots selected randomly until the audit results reflect with a strong amount of certainty that the reported tabulation outcome is correct.

(3) "Cast vote record" or "CVR" means record of all votes produced by a single voter in electronic form.

(4) "Comparison audit" means a type of risk-limiting audit in which the audit board examines and reports to the secretary of state voter markings on randomly selected ballots, then compares them to the voting system's tabulation as reflected in the corresponding cast vote records.

(5) "Hash" is a number generated from a string of text. The hash must be generated by a formula in such a way that it is extremely unlikely that some other text will produce the same hash value.

(6) "Reported tabulation outcome" means the presumed winning and losing candidates or voting choices of a ballot contest as reflected in preliminary results.

(7) "Risk limit" means the largest statistical probability that an incorrect reported tabulation outcome is not detected and corrected in a risk-limiting audit.

(8) "Risk-limiting audit" or "RLA" means a post-election audit of votes on paper ballots and voter-verifiable paper audit trail (VVPAT) records that makes use of statistical principles and methods, is designed to limit the risk of certifying

an incorrect election outcome, and is conducted in accordance with RCW 29A.60.185. Ballot polling audits and comparison audits are two types of risk-limiting audits.

(9) "RLA tabulation" means the tabulation of all randomly selected ballots cast by voters registered in the county, and any accepted provisional ballots that the county opts to include.

(10) "RLA tool" means the software and user interfaces provided by the secretary of state in order to compare the randomly selected ballots to the cast vote record for the RLAs.

(11) "Target contest" means a contest selected by the secretary of state or county auditor for a risk-limiting audit.

#### NEW SECTION

**WAC 434-261-115 Post-election audits.** The county auditor must conduct one of the types of audits listed in RCW 29A.60.185. The county auditor may choose a risk-limiting audit, one of the options available under RCW 29A.60.185 and this rule.

(1) If choosing a risk-limiting audit, counties that use a voting system capable of exporting CVRs must conduct a comparison audit.

(2) If choosing a risk-limiting audit, counties that use a voting system incapable of exporting CVRs must conduct a ballot polling audit.

#### NEW SECTION

**WAC 434-261-116 Preparing for a risk-limiting audit.** (1) No later than thirty days before the primary or election, the secretary of state will establish and publish the risk limit(s) that will apply in RLAs for that election. The secretary of state may establish different risk limits for comparison audits and ballot polling audits, and for audits of statewide and county contests. In comparison audits, the risk limit will not exceed five percent for statewide contests, and ten percent for county contests.

(2) No later than eighteen days before the primary or election, the county auditor must appoint an audit board to conduct the risk-limiting audit. Observers nominated by the major political party county chairpersons in accordance with RCW 29A.60.170 may be present during the audit. Members of the canvassing board may serve as members of the audit board. The county auditor or members of their staff may assist the audit board in conducting the audit. All observers are allowed in accordance with RCW 29A.60.170 and WAC 434-261-020.

(3) The county must maintain an accurate ballot manifest in a form approved by the secretary of state and independent of the voting system.

(a) In the case of centrally counted paper ballots, the ballot manifest must uniquely identify for each tabulated ballot the scanner on which the ballot is scanned, the ballot batch of which the ballot is a part, the number of ballots in the batch, and the storage container in which the ballot batch is stored after tabulation. The county must secure and maintain in sealed ballot containers all tabulated ballots in the batches and order they are scanned. The county must maintain and document uninterrupted chain-of-custody for each ballot storage container.

(b) In the case of electronic ballots cast on direct recording electronic voting devices (DREs), the ballot manifest must uniquely identify the device on which the ballot was cast or tabulated, the number of ballots cast or tabulated on the device, and the storage container or location in which each paper ballot or VVPAT is stored. The county must maintain and document uninterrupted chain-of-custody for each DRE and VVPAT. Ballots cast on each DRE and VVPAT must constitute a single batch.

(4) No later than the sixth day after election day, the county must pause or finish tabulating all ballots cast by voters registered in the county received through that day. The county may, but is not required to, include in the RLA tabulation any provisional ballots that have been verified and accepted on or before the sixth day after election day. Immediately after completing the RLA tabulation, and to the extent permitted by its voting system, the county must also generate and preserve:

(a) A summary results report, showing overvotes, undervotes, and valid write-in votes;

(b) A results file export suitable for uploading to the secretary of state's election night reporting system; and

(c) A CVR export, if conducting a comparison audit.

(5) Counties conducting a comparison audit must verify that:

(a) The number of individual CVRs in its CVR export equals the aggregate number of ballots reflected in the county's ballot manifest as of the sixth day after election day; and

(b) The vote totals for all choices in all ballot contests in the CVR export equals the vote totals in the summary results report for the RLA tabulation.

After verifying the accuracy of the CVR export, the county must apply a hash value to the CVR export file using the hash value utility provided by the secretary of state.

(6) Comparison audit uploads. No later than 5:00 p.m. on the sixth day after election day, each county conducting a comparison audit must upload:

(a) Its verified and hashed ballot manifest, and the ballot manifest's hash value, to the secretary of state's office;

(b) Its verified and hashed CVR export, and the CVR export's hash value, to the secretary of state's office; and

(c) Its RLA tabulation results export to the secretary of state's election night reporting system.

(7) Ballot polling audit uploads. No later than 5:00 p.m. on the sixth day after election day, each county conducting a ballot polling audit must submit or upload:

(a) Its verified and hashed ballot manifest, and the ballot manifest's hash value, to the secretary of state's office;

(b) Its cumulative tabulation report, to the secretary of state's office; and

(c) Its RLA tabulation results export to the secretary of state's election night reporting system.

(8) The secretary of state will convene a public meeting on the seventh day after election day to establish a random seed for use with the secretary of state's RLA tool's random number generator.

(9) The seed is a number consisting of at least twenty digits, and each digit will be selected in order by sequential rolls of a ten-sided die. The secretary of state will designate

one or more staff members to take turns rolling the die. The secretary of state will publish online the random seed after it is established.

(10) No later than 5:00 p.m. on the Friday after election day, the secretary of state will select by lot a statewide contest, and for each county at least one ballot contest other than the selected statewide contest. The county auditor shall randomly select a ballot contest for audit if in any particular election there is no statewide contest. These will be considered the target contests for the RLA. The secretary of state will publish online a complete list of all target contests.

(11) The target contest with the closest diluted margin for each county determines the number of ballots that must be examined during the RLA.

(12) The secretary of state will determine the number of ballots to audit to satisfy the risk limit for the target contests based on the ballot manifests submitted by the counties. The number of ballots to audit will be determined according to the formulas maintained on file in the secretary of state's office.

(13) The secretary of state will randomly select the individual ballots to audit. The secretary of state will use a random number generator with the seed established under subsection (9) of this rule to identify individual ballots as reflected in the county ballot manifests. The secretary of state will notify each county of the randomly selected ballots that each county must audit no later than the seventh day after election day.

#### NEW SECTION

##### **WAC 434-261-117 Conducting a risk-limiting audit.**

The audit board must locate and retrieve, or observe as county election staff locate and retrieve, each randomly selected ballot or VVPAT record from the appropriate storage container. The audit board must verify that the seals on the appropriate storage containers are those recorded on the applicable chain-of-custody logs.

(1) In counties conducting comparison audits, each randomly selected ballot must be examined and voter markings or choices in all contests must be reported using the RLA tool or other means specified by the secretary of state. The audit board may refer to the digital image of the audited ballot captured by the voting system in order to confirm it retrieved the correct ballot randomly selected for audit. The audit board must complete the audit of all ballots randomly selected for audit within four business days to allow time for additional ballots to be included if a discrepancy is identified in accordance with RCW 29A.60.185(3).

(2) In counties conducting ballot polling audits, the audit board must examine and report the voter markings or choices in only the target contest on each randomly selected ballot in a form approved by the secretary of state. The audit board may refer to the digital image of the audited ballot captured by the voting system in order to confirm it retrieved the correct ballot. The audit board must complete its reports of all ballots randomly within four business days to allow time for additional ballots to be included if a discrepancy is identified in accordance with RCW 29A.60.185(3).

(3) The audit board must interpret voter markings on ballots selected for audit in accordance with WAC 434-261-086.

If the audit board members cannot unanimously agree on the voter's intent, they must indicate the inability to agree in the appropriate contest in the RLA tool's audit board user interface, or the ballot polling audit form approved by the secretary of state.

To the extent applicable, the secretary of state will compare the audit board's reports of the audited ballots to the corresponding CVRs and post the summary results of the comparison online. If there is a discrepancy that exceeds the risk limit, the RLA will continue until the risk limit for the target contests is met or until a full hand count results. If the county audit reports reflect that the risk limit has not been satisfied in a target contest, the secretary of state will randomly select additional ballots for audit using the same procedures described in WAC 434-261-116.

The formula used to determine if the risk limit has been satisfied will be maintained on file in the secretary of state's office.

The audit board must sign, date, and submit to the secretary of state a report of the results of the risk-limiting audit on the approved form within four business days. The report must include any discrepancies found.

The secretary of state will review the audit board's report and may direct the county auditor to conduct additional audit rounds, a random audit, a full hand count, or other action. The secretary of state may instruct the county to delay canvass until it completes any additional audit or other action.

#### NEW SECTION

**WAC 434-261-118 Risk-limiting audit reports.** The designated election official must segregate and seal the materials used during the post-election audit, including all tabulation reports, the audited ballots, and the audit report.

#### NEW SECTION

**WAC 434-261-119 Removal of risk-limiting audit board members.** Removal and replacement of audit board members. The county auditor may remove from the audit board any persons who indicate to the county auditor that they cannot or do not wish to serve as audit board members, and/or who, in the judgment of the county auditor, lack the ability to properly serve as audit board members. If the county auditor removes an audit board member, the auditor must notify the secretary of state and appoint a replacement in the same manner as described in WAC 434-261-116.

AMENDATORY SECTION (Amending WSR 14-06-040, filed 2/26/14, effective 3/29/14)

**WAC 434-262-020 Preliminary abstract of votes.** (1) Prior to the official canvass, the county auditor shall prepare a preliminary abstract of votes for certifying the election, listing the number of registered voters ~~((and))~~, votes cast, and individual declared write-in candidate tallies required by chapter 29A.60 RCW. The preliminary abstract of votes must list separately for each precinct:

- (a) Number of registered voters;
- (b) Number of ballots cast;
- (c) Votes cast for and against each measure;

- (d) Votes cast for each candidate;
- (e) Total number of write-in votes in each race; and
- (f) Total number of overvotes and undervotes in each race.

(2) Pursuant to RCW 29A.60.230, the county auditor may aggregate results or take other necessary steps to maintain the secrecy of ballots.

(3) The county auditor shall inspect the preliminary abstract of votes for errors or anomalies that may affect the results of the election. Correction of any errors or anomalies discovered must be made prior to the official canvass.

AMENDATORY SECTION (Amending WSR 17-12-090, filed 6/6/17, effective 7/7/17)

**WAC 434-262-030 County auditor's abstract of votes.** The county canvassing board shall meet and canvass all ballots. Upon completion of this canvass ten days after a special election, fourteen days after a primary, and twenty-one days after a general election, the county auditor shall present the auditor's abstract of votes, which must include, at a minimum:

(1) The number of registered voters eligible to vote in the election, by precinct;

(2) The number of ballots cast in the election, by precinct;

(3) The votes cast for each race or issue, including write-ins, undervotes, and overvotes, by precinct;

(4) Cumulative vote totals including write-ins, undervotes, and overvotes; and

(5) ~~((Individual candidate write-in vote tallies. Write-in votes must be tabulated correctly according to WAC 434-261-070. Individual write-in tallies are required for candidates not appearing on the ballot if the total number of write-ins is greater than the number of votes cast for the candidate elected; or in a primary, the total number of votes cast for either candidate that apparently qualified to appear on the general election ballot. Where there is only one candidate on the ballot in a primary, individual write-in tallies are required if the number of write-ins is greater than one percent of the total votes cast for that office.))~~ An aggregate total of votes cast for each declared candidate qualifying for the general election or elected. Individual write-in vote tallies for candidates not meeting the minimum threshold according to chapter 29A.60 RCW shall not be included in the official abstract of votes and results displayed online.

Write-in votes for candidates whose names appear on the ballot for that office should be counted according to ~~((RCW 29A.60.021. Individual tallies of these write-in votes are required under the circumstances described in RCW 29A.60.021(3))~~ WAC 434-261-086.

AMENDATORY SECTION (Amending WSR 08-15-052, filed 7/11/08, effective 8/11/08)

**WAC 434-262-160 Write-in-voting—Voter intent.**

(1) In all cases of write-in votes the canvassing board shall exercise all reasonable efforts to determine the voter's intent. ~~((Write-in votes in the general election are not to be counted for any person who filed for the same office as either a regular or write-in candidate at the preceding primary and failed~~

~~to qualify for the general election. If a write-in declaration of candidacy has been filed, the voter need only write in that candidate's name in order for the vote to be counted; the candidate's party preference does not impact whether the write-in vote shall be counted. If no declaration of write-in candidacy has been filed, the voter must write in the name of the candidate and, if the office or position number cannot be determined by the location of the write-in on the ballot, the office and position number, in order for the write-in vote to be counted.~~

~~(2)(a) If a write-in candidate for partisan office does not file a write-in declaration of candidacy but does qualify for the general election ballot, the candidate has not stated a preference for a political party and therefore shall have "(states no party preference)" printed on the general election ballot.~~

~~(b)) The board shall determine if votes with name and spelling variations are votes for a declared write-in candidate.~~

~~(2) If a declared write-in candidate ((for partisan office files a write-in declaration of candidacy and qualifies for the general election ballot)) qualifies as one of the top two candidates in the primary, the party preference stated on the write-in declaration of candidacy, if any, shall be printed on the general election ballot.~~

AMENDATORY SECTION (Amending WSR 07-20-074, filed 10/1/07, effective 11/1/07)

**WAC 434-262-132 ((~~Election results for~~)) Multi-county candidate races. ((~~In a candidate race~~)) When a write-in candidate files a declaration in a multicounty jurisdiction, the filing officer shall notify the affected counties. The filing officer must combine the write-in totals from all affected counties to determine if the total write-in votes must be tallied for individual candidates as per chapter 29A.60 RCW. If votes must be tallied, the officer must immediately notify the affected counties.**

With the exception of certificates of election issued in accordance with RCW 29A.52.360 and 29A.52.370, the filing officer must collect and combine the certified results from the county canvassing boards in order to issue a certificate of election for candidates in multicounty jurisdictions.

## WSR 19-01-105

### PERMANENT RULES

### DEPARTMENT OF

### SOCIAL AND HEALTH SERVICES

(Economic Services Administration)

[Filed December 18, 2018, 2:51 p.m., effective February 1, 2019]

Effective Date of Rule: February 1, 2019.

Purpose: The department is amending WAC 388-418-0005 How will I know what changes to report?, 388-470-0005 How do resources affect my eligibility for cash assistance and basic food?, and 388-470-0070 How vehicles are counted toward the resource limit for cash assistance, to revise the resource limits for cash programs. These changes, effective February 1, 2019, are required by state legislation (E2SHB 1831).

Citation of Rules Affected by this Order: Amending WAC 388-418-0005, 388-470-0005, and 388-470-0070.

Statutory Authority for Adoption: RCW 74.04.005, 74.04.050, 74.04.055, 74.04.057, 74.04.500, 74.04.510, 74.08.090, 74.08A.010, 74.08A.120, 74.08A.250.

Adopted under notice filed as WSR 18-19-071 on September 17, 2018.

Number of Sections Adopted in Order to Comply with Federal Statute: New 0, Amended 0, Repealed 0; Federal Rules or Standards: New 0, Amended 0, Repealed 0; or Recently Enacted State Statutes: New 0, Amended 3, Repealed 0.

Number of Sections Adopted at the Request of a Non-governmental Entity: New 0, Amended 0, Repealed 0.

Number of Sections Adopted on the Agency's own Initiative: New 0, Amended 0, Repealed 0.

Number of Sections Adopted in Order to Clarify, Streamline, or Reform Agency Procedures: New 0, Amended 0, Repealed 0.

Number of Sections Adopted using Negotiated Rule Making: New 0, Amended 0, Repealed 0; Pilot Rule Making: New 0, Amended 0, Repealed 0; or Other Alternative Rule Making: New 0, Amended 3, Repealed 0.

Date Adopted: December 18, 2018.

Katherine I. Vasquez  
Rules Coordinator

**AMENDATORY SECTION** (Amending WSR 18-09-017, filed 4/10/18, effective 7/1/18)

**WAC 388-418-0005 How will I know what changes to report?** (1) You must report changes to the department based on the kinds of assistance you receive. We inform you of your reporting requirements on letters we send you about your benefits. Follow the steps below to determine the types of changes you must report:

(a) If you receive **cash** benefits, you need to tell us if:

(i) You move;

(ii) Someone moves out of your home;

(iii) Your total gross monthly income goes over the:

(A) Payment standard under WAC 388-478-0033 if you receive ABD cash; or

(B) Earned income limit under WAC 388-478-0035 and 388-450-0165 for all other programs;

(iv) You have liquid resources more than ~~((four))~~ six thousand dollars; or

(v) You have a change in employment, you need to tell us if:

(A) You get a job or change employers;

(B) Your schedule changes from part-time to full-time or full-time to part-time;

(C) You have a change in your hourly wage rate or salary; or

(D) You stop working.

(b) If you are a relative or nonrelative caregiver and receive cash benefits on behalf of a child in your care but not for yourself or other adults in your household, you need to tell us if:

(i) You move;

(ii) The child you are caring for moves out of the home;

(iii) Anyone related to the child you are caring for moves into or out of the home;

(iv) There is a change in the recipient child's earned or unearned income unless they are in school full-time as described in WAC 388-450-0070;

(v) The recipient child has liquid resources more than ~~((four))~~ six thousand dollars;

(vi) A recipient child in the home becomes a foster child; or

(vii) You legally adopt the recipient child.

(2) If you do not receive cash assistance but you do receive benefits from basic food, you must report changes for the people in your assistance unit under chapter 388-408 WAC, and tell us if:

(a) Your total monthly income is more than the maximum gross monthly income as described in WAC 388-478-0060; or

(b) Anyone who receives food benefits in your assistance unit and who must meet work requirements under WAC 388-444-0030 has their hours at work go below twenty hours per week.

**AMENDATORY SECTION** (Amending WSR 18-02-043, filed 12/26/17, effective 1/26/18)

**WAC 388-470-0005 How do resources affect my eligibility for cash assistance and basic food?** (1) The following definitions apply to this chapter:

(a) **"We"** means the department of social and health services.

(b) **"You"** means a person applying for or getting benefits from the department.

(c) **"Fair market value"** or **"FMV"** means the price at which you could reasonably sell the resource.

(d) **"Equity value"** means the FMV minus any amount you owe on the resource.

(e) **"Community property"** means a resource in the name of the husband, wife, or both.

(f) **"Separate property"** means a resource of a married person that one of the spouses:

(i) Had possession of and paid for before they were married;

(ii) Acquired and paid for entirely out of income from separate property; or

(iii) Received as a gift or inheritance.

(2) We count a resource to decide if your assistance unit (AU) is eligible for cash assistance or basic food when:

(a) It is a resource we must count under WAC 388-470-0045 for cash assistance or WAC 388-470-0055 for basic food;

(b) You own the resource and we consider you to own a resource if:

(i) Your name is on the title to the property; or

(ii) You have property that does not have a title;

(c) You have control over the resource, which means the resource is actually available to you; and

(d) You could legally sell the resource or convert it into cash within twenty days.

(3) For cash assistance, you must try to make your resources available even if it will take you more than twenty days to do so, unless:

(a) There is a legal barrier; or

(b) You must petition the court to release part or all of a resource.

(4) When you apply for assistance, we count your resources as of:

(a) The date of your interview, if you are required to have an interview; or

(b) The date of your application, if you are not required to have an interview.

(5) If your total countable resources are over the resource limit in subsection (6) through (13) of this section, you are not eligible for benefits.

(6) For cash assistance, ~~((we use the))~~ there is an equity value ((as the value of your resources.)) resource limit of six

~~((a) Applicants may have countable resources up to one))~~ thousand dollars.

~~((b) Recipients of cash assistance may have an additional three thousand dollars in a savings account.))~~

(7) If your AU is categorically eligible (CE) as described in WAC 388-414-0001, you do not have a resource limit for Basic Food.

(8) If your AU is not CE under WAC 388-414-0001, your AU may have countable resources up to the following amount and be eligible for basic food:

(a) Three thousand five hundred dollars if your AU has either an elderly or disabled individual; or

(b) Two thousand two hundred fifty dollars for all other AUs.

(9) If you own a countable resource with someone who is not in your AU, we count the portion of the resource that you own. If we cannot determine how much of the resource is yours:

(a) For cash assistance, we count an equal portion of the resource that belongs to each person who owns it.

(b) For basic food, we count the entire amount unless you can prove that the entire amount is not available to you.

(10) We assume that you have control of community property and you can legally sell the property or convert it to cash unless you can show that you do not.

(11) We may not consider an item to be separate property if you used both separate and community funds to buy or improve it.

(12) We do not count the resources of victims of family violence when:

(a) The resource is owned jointly with members of the former household;

(b) Availability of the resource depends on an agreement of the joint owner; or

(c) Making the resource available would place the client at risk of harm.

(13) You may give us proof about a resource anytime, including when we ask for it or if you disagree with a decision we made, about:

(a) Who owns a resource;

(b) Who has legal control of a resource;

(c) The value of a resource;

(d) The availability of a resource; or

(e) The portion of a property you or another person owns.

AMENDATORY SECTION (Amending WSR 13-18-005, filed 8/22/13, effective 10/1/13)

**WAC 388-470-0070 How vehicles are counted toward the resource limit for cash assistance.** (1) A vehicle is any device for carrying persons and objects by land, water, or air.

(2) The entire value of a licensed vehicle needed to transport a physically disabled assistance unit member is excluded.

(3) The equity value of one vehicle up to ~~((five))~~ ten thousand dollars is excluded when the vehicle is used by the assistance unit or household as a means of transportation.

### WSR 19-01-108

#### PERMANENT RULES

#### DEPARTMENT OF HEALTH

[Filed December 18, 2018, 4:07 p.m., effective January 18, 2019]

Effective Date of Rule: Thirty-one days after filing.

Purpose: WAC 246-454-010 Definitions and 246-454-030 Submission of budget, hospital financial data and reports. The department of health (department) has adopted: (1) The repeal of WAC 246-454-030 to eliminate an outdated requirement that each hospital submit a financial report related to hospitals' annual budgets; (2) an amendment to WAC 246-454-010 to remove the definition of "budget," a term related to the section repealed; and (3) an amendment to correct a statutory reference in WAC 246-454-010; and an amendment to the introduction sentence in WAC 246-454-010 to provide clarity.

Citation of Rules Affected by this Order: Repealing WAC 246-454-030; and amending WAC 246-454-010.

Statutory Authority for Adoption: RCW 43.70.040.

Other Authority: RCW 43.70.052.

Adopted under notice filed as WSR 18-18-076 on September 4, 2018.

Changes Other than Editing from Proposed to Adopted Version: Clarifying language was added to WAC 246-454-010. The introduction sentence was amended to provide clarity. The amended sentence reads, "The definitions in this section apply throughout the chapter unless the context clearly requires otherwise."

Number of Sections Adopted in Order to Comply with Federal Statute: New 0, Amended 0, Repealed 0; Federal Rules or Standards: New 0, Amended 0, Repealed 0; or Recently Enacted State Statutes: New 0, Amended 0, Repealed 0.

Number of Sections Adopted at the Request of a Non-governmental Entity: New 0, Amended 0, Repealed 0.

Number of Sections Adopted on the Agency's own Initiative: New 0, Amended 1, Repealed 1.

Number of Sections Adopted in Order to Clarify, Streamline, or Reform Agency Procedures: New 0, Amended 0, Repealed 0.

Number of Sections Adopted using Negotiated Rule Making: New 0, Amended 0, Repealed 0; Pilot Rule Making: New 0, Amended 0, Repealed 0; or Other Alternative Rule Making: New 0, Amended 1, Repealed 1.

Date Adopted: December 18, 2018.

John Wiesman, DrPH, MPH  
Secretary

**AMENDATORY SECTION** (Amending WSR 94-12-089, filed 6/1/94, effective 7/2/94)

**WAC 246-454-010 Definitions.** ~~((As used in this chapter,))~~ The definitions in this section apply throughout the chapter unless the context clearly requires otherwise.

(1) "Department" means the Washington state department of health created by chapter 43.70 RCW.

(2) "Hospital" means any health care institution which is required to qualify for a license under chapter 70.41 RCW ((70.41.020(2))); or as a psychiatric hospital under chapter 71.12 RCW.

(3) "Manual" means the *Washington State Department of Health Accounting and Reporting Manual for Hospitals*, third edition adopted under WAC 246-454-020.

(4) "System of accounts" means the list of accounts, code numbers, definitions, units of measure, and principles and concepts included in the manual.

~~((5) "Budget" means the forecast of each hospital's total financial needs and the resources available to meet such needs for its next fiscal year and includes such information as shall be specified in the manual concerning volume and utilization projections, operating expenses, capital requirements, and deductions from revenue.))~~

#### REPEALER

The following section of the Washington Administrative Code is repealed:

WAC 246-454-030 Submission of budget.

ments necessary after the decodification of chapters 170-06 and 170-290 WAC and recodification to Title 110 WAC.

Citation of Rules Affected by this Order: New WAC 110-06-0046; repealing WAC 110-06-0060, 110-15-0135, 110-15-0138, 110-15-0139, 110-15-0140, 110-15-0143, 110-15-0145, 110-15-0150, 110-15-0155, 110-15-0160, 110-15-0165 and 110-15-0167; and amending WAC 110-06-0010, 110-06-0020, 110-06-0040, 110-06-0041, 110-06-0042, 110-06-0043, 110-06-0044, 110-06-0045, 110-06-0050, 110-06-0070, 110-06-0080, 110-06-0090, 110-06-0100, 110-06-0110, 110-06-0115, 110-06-0120, 110-15-0034, 110-15-0125, and 110-15-0250.

Statutory Authority for Adoption: RCW 43.216.055 and 43.216.065; chapter 43.216 RCW.

Other Authority: 42 U.S.C. 9858 et seq.; 45 C.F.R. Part 98.

Adopted under notice filed as WSR 18-20-128 on October 3, 2018.

Changes Other than Editing from Proposed to Adopted Version: WAC 110-16-0041(2), revised to clarify that early learning providers must require a subject individual to complete a background check application prior to the date of hire.

Number of Sections Adopted in Order to Comply with Federal Statute: New 0, Amended 0, Repealed 0; Federal Rules or Standards: New 1, Amended 19, Repealed 12; or Recently Enacted State Statutes: New 0, Amended 0, Repealed 0.

Number of Sections Adopted at the Request of a Non-governmental Entity: New 0, Amended 0, Repealed 0.

Number of Sections Adopted on the Agency's own Initiative: New 0, Amended 0, Repealed 0.

Number of Sections Adopted in Order to Clarify, Streamline, or Reform Agency Procedures: New 0, Amended 0, Repealed 0.

Number of Sections Adopted using Negotiated Rule Making: New 0, Amended 0, Repealed 0; Pilot Rule Making: New 0, Amended 0, Repealed 0; or Other Alternative Rule Making: New 0, Amended 0, Repealed 0.

Date Adopted: December 18, 2018.

Brenda Villarreal  
Rules Coordinator

#### WSR 19-01-111

#### PERMANENT RULES

#### DEPARTMENT OF

#### CHILDREN, YOUTH, AND FAMILIES

[Filed December 18, 2018, 4:17 p.m., effective January 18, 2019]

Effective Date of Rule: Thirty-one days after filing.

Purpose: Amend chapter 110-06 WAC, DEL background checks and chapter 110-15 WAC, Working connections and seasonal child care, consistent with new chapter 110-16 WAC which requires license-exempt child care providers participating in working connections child care to complete background checks, receive health and safety training, and participate in annual monitoring visits. These adopted rules comply with federal Child Care Development Fund (CCDF) requirements, a condition of continued receipt of CCDFs. These adopted rules also contain technical amend-

**AMENDATORY SECTION** (Amending WSR 18-14-078, filed 6/29/18, effective 7/1/18)

**WAC 110-06-0010 Purpose and scope.** (1) The purpose of this chapter is to establish rules for background checks conducted by the department of ~~((early learning (DEL or department)))~~ of children, youth, and families (DCYF).

(2) The department conducts background checks on subject individuals who are authorized to:

(a) Care for or have unsupervised access to children receiving early learning services; or

(b) Care for children in the child's or provider's home. These providers, also known as family, friends, and neighbors (FFN) or in-home/relative care providers are exempt from licensing and receive working connections child care (WCCC) subsidies.

(3) The department conducts background checks to reduce the risk of harm to children from subject individuals

who have been convicted of certain crimes or who pose a risk to children.

(4) The department's rules and state law require the evaluation of background information to determine the character, suitability, or competence of persons who will care for or have unsupervised access to children receiving early learning services or other agency authorized services.

(5) If any provision of this chapter conflicts with any provision in any chapter containing a substantive rule relating to background checks and qualifications of persons who are authorized to care for or have unsupervised access to children receiving early learning services, the provisions in this chapter shall govern.

(6) These rules implement chapters ~~((43.215))~~ 43.216 and 43.43 RCW, including ~~((DEL))~~, but not limited to, DCYF responsibilities in RCW ~~((43.215.200, 43.215.205, 43.215.215 through 43.215.218, 43.43.830, and 43.43.832))~~ 43.216.260, 43.216.270 through 43.216.273, and 43.43.830 through 43.43.832.

(7) ~~((Effective date: These rules are initially effective July 3, 2006, and apply prospectively. Effective July 1, 2012.))~~ These rules are amended to allow for increased and continued portability of background check clearances for subject individuals who are authorized to care for or may have unsupervised access to children receiving early learning services.

**AMENDATORY SECTION** (Amending WSR 18-14-078, filed 6/29/18, effective 7/1/18)

**WAC 110-06-0020 Definitions.** The following definitions apply to this chapter:

"**Agency**" has the same meaning as "agency" in RCW ~~((43.215.010(2)))~~ 43.216.010.

"**Appellant**" means only those with the right of appeal under this chapter.

"**Applicant**" means an individual who is seeking DCYF background check authorization as part of:

(a) An application for a child care agency license or DCYF certification or who seeks DCYF authorization to care for or have unsupervised access to children receiving early learning services; or

(b) A continuation of a nonexpiring license or renewal of a certificate, or renewal of DCYF's authorization to care for or have unsupervised access to children receiving early learning services, with respect to an individual who is a currently licensed or certified child care provider.

"**Authorized**" or "**authorization**" means approval by ~~((DEL))~~ DCYF to care for or have unsupervised access to children receiving early learning services or to work in or reside on the premises of a child care agency or certified facility.

"**Certification**" or "**certified by** ~~((DEL))~~ DCYF" means an agency that is legally exempt from licensing that has been certified by ~~((DEL))~~ DCYF as meeting minimum licensing requirements.

"**Conviction information**" means criminal history record information relating to an incident which has led to a conviction or other disposition adverse to the subject individual.

~~((DEL))~~ "**DCYF**" or "**department**" means the department of ~~((early learning-~~

~~"Director's list" means a list of crimes, the commission of which disqualifies a subject individual from being authorized by DEL to care for or have unsupervised access to children receiving early learning services, WAC 170-06-0120))~~ children, youth, and families.

"**Disqualified**" means ~~((DEL))~~ DCYF has determined that a person's background information prevents that person ~~((from being licensed or certified by DEL or))~~ from being authorized by ~~((DEL))~~ DCYF to care for or have unsupervised access to children receiving early learning services.

"**Early learning service(s)**" for purposes of this chapter means the early childhood education and assistance program ~~((and)),~~ head start, licensed child care, and license-exempt child care services.

"**In-home/relative provider**" or "**family, friends, and neighbors provider**" or "**FFN provider**" means an individual who is exempt from child care licensing standards, meets the requirements of chapter 110-16 WAC, and is approved for working connections child care (WCCC) payments under WAC 110-15-0125.

"**Licensee**" means the individual, person, organization, or legal entity named on the child care license issued by DCYF and responsible for operating the child care facility or agency.

"**Negative action**" means a court order, court judgment or an adverse action taken by an agency, in any state, federal, tribal or foreign jurisdiction, which results in a finding against the subject individual reasonably related to the subject individual's character, suitability and competence to care for or have unsupervised access to children receiving early learning services. This may include, but is not limited to:

(a) A decision issued by an administrative law judge.

(b) A final determination, decision or finding made by an agency following an investigation.

(c) An adverse agency action, including termination, revocation or denial of a license or certification, or if pending adverse agency action, the voluntary surrender of a license, certification or contract in lieu of the adverse action.

(d) A revocation, denial or restriction placed on any professional license.

(e) A final decision of a disciplinary board.

"**Nonconviction information**" means arrest, pending charges, founded allegations of child abuse, or neglect pursuant to chapter 26.44 RCW, or other negative action adverse to the subject individual.

"**Nonexpiring license**" or "**nonexpiring full license**" means a ~~((full))~~ license that is issued to a licensee following the initial licensing period, as provided in ~~((WAC 170-151-087, 170-295-0095, or 170-296A-1450))~~ chapter 110-300 WAC, as appropriate.

"**Secretary's list**" means a list of crimes, the commission of which disqualifies a subject individual from being authorized by DCYF to care for or have unsupervised access to children receiving early learning services, WAC 110-06-0120.

"**Subject individual**":

(a) Means an individual who:

(i) Is seeking a background check authorization or upon whom the department may conduct a background check authorization;

(ii) Is sixteen years of age or older;

(iii) Is an in-home/relative provider or is employed ~~((by))~~, contracted with, or ~~((volunteering))~~ volunteers to provide early learning services; and

(iv) Will care for or have unsupervised access to children receiving early learning services; and

(b) Includes, but is not limited to, the following:

(i) Personnel, including employees and staff;

(ii) Contractors, including contracted providers;

(iii) Temporary workers;

(iv) Assistants;

(v) Volunteers;

(vi) Interns;

(vii) Each person who is sixteen years of age or older residing on, or moving into, the premises where early learning services are provided;

(viii) All other individuals who are sixteen years of age or older who will care for or have unsupervised access to children receiving early learning services;

(ix) All owners, operators, lessees, or directors of the agency or facility, or their designees;

(x) Applicants ~~((As used in this definition, "applicant" means an individual who is seeking a DEL background check authorization as part of:~~

~~(A) An application for a child care agency license or DEL certification or who seeks DEL authorization to care for or have unsupervised access to children receiving early learning services; or~~

~~(B) A continuation of a nonexpiring license or renewal of a certificate, or renewal of DEL's authorization to care for or have unsupervised access to children receiving early learning services, with respect to an individual who is a currently licensed or certified child care provider; and);~~

(xi) Licensees ~~((As used in this definition, "licensee" means the individual, person, organization, or legal entity named on the child care license issued by DEL and responsible for operating the child care facility or agency)); or~~

(xii) In-home/relative providers and their household members who are sixteen years of age or older.

**"Unsupervised access"** means:

(a) A subject individual will or may have the opportunity to be alone with a child receiving early learning services at any time and for any length of time; and

(b) Access to a child receiving early learning services that is not within constant visual or auditory range of the ~~((licensee, an employee))~~ individual authorized by ~~((DEL, nor a relative or guardian of the child receiving early learning services))~~ DCYF.

AMENDATORY SECTION (Amending WSR 18-14-078, filed 6/29/18, effective 7/1/18)

**WAC 110-06-0040 Background clearance requirements.** This section applies to all subject individuals other than in-home/relative providers.

(1) ~~((Effective July 1, 2012, all new))~~ Subject individuals associated with early learning services applying for a first-

time background check must complete the background check application process through ~~((DEL))~~ DCYF to include:

~~((Completion of))~~ Submitting a completed background check application;

~~((b))~~ Completing the required fingerprint process; and

~~((b) Payment of))~~ (c) Paying all required fees as provided in WAC ((170-06-0044)) 110-06-0044.

(2) All ~~((other))~~ subject individuals who have been previously qualified by the department to have unsupervised access to children in care ~~((, prior to July 1, 2012, must submit a new background check application no later than July 1, 2013. The subject person))~~ and are renewing their applications must:

(a) Submit the new background check application through ~~((DEL))~~ DCYF;

(b) Submit payment of all required fees as provided in WAC ~~((170-06-0044;))~~ 110-06-0044; and

~~((Complete the required fingerprint process if the subject individual has lived in Washington state for fewer than three consecutive years prior to July 1, 2013;~~

~~((d)))~~ Complete the required fingerprint process if the subject individual lives or has lived outside of Washington state since the previous background check was completed.

(3) Each subject individual completing the ~~((DEL))~~ DCYF background check process must disclose:

(a) Whether he or she has been convicted of any crime;

(b) Whether he or she has any pending criminal charges; and

(c) Whether ~~((there is))~~ he or she has been subject to any negative action ~~((s, to which he or she has been subject)), as defined by WAC ((170-06-0020)) 110-06-0020.~~

(4) A subject individual must not have unsupervised access to children in care unless he or she has obtained ~~((DEL))~~ DCYF authorization under this chapter.

(5) A subject individual who has been disqualified by ~~((DEL))~~ DCYF must not be present on the premises when early learning services are provided to children.

AMENDATORY SECTION (Amending WSR 18-14-078, filed 6/29/18, effective 7/1/18)

**WAC 110-06-0041 Requirements for early learning service providers.** (1) ~~((An agency, licensee, certified facility or))~~ This section applies to all providers other than in-home/relative providers.

(2) Early learning services providers must require a subject individual to complete the ~~((DEL))~~ DCYF background check application ~~((process))~~:

(a) ~~((Within seven days of))~~ Prior to the date of hire;

(b) By the date a subject individual age sixteen or older moves onto the premises; or

(c) By the date a subject individual who lives on the premises turns sixteen years old.

~~((2))~~ The early learning services provider must keep on-site a copy of each subject individual's background check clearance authorization.

~~((3))~~ The early learning services provider must update the provider portal in the DEL system to verify the subject individuals associated with their program.

~~(4) The early learning services provider must verify annually that each subject individual who is required to have a background check has either obtained a department clearance or has applied for a department background check through the DEL system. The verification must be submitted with the licensee's annual license fee and declarations.)~~

AMENDATORY SECTION (Amending WSR 18-14-078, filed 6/29/18, effective 7/1/18)

**WAC 110-06-0044 Background check fees.** This section applies to all subject individuals other than in-home/relative providers.

(1) Subject individuals associated with early learning services must pay for the cost of the background check process. The fees include:

(a) Fingerprint process fees as defined by the ~~((WSP, FBI))~~ Washington state patrol, Federal Bureau of Investigation, and the ~~((DEL))~~ DCYF fingerprint contractor; and

(b) The ~~((DEL))~~ DCYF administrative fee of:

(i) ~~((The cost of administration of the portable background check clearance based upon electronic submission has been determined to be))~~ Twelve dollars ~~((for any background check application received in the period after June 30, 2012, therefore the fee))~~ for an electronic submission ~~((is twelve dollars for the described period)); or~~

(ii) ~~((The cost of administration of the portable background check clearance based upon a manual paper submission has been determined to be))~~ Twenty-four dollars ~~((for any background check received after June 30, 2012, therefore the fee for a manual paper-based submission is twenty-four dollars for the described period))~~ for a paper submission.

(2) DCYF administrative fee payments may be:

(a) By debit or credit card;

(b) In the form of a personal check, cashier's check, or money order, which shall be sent by mail; or

~~((b))~~ (c) By electronic funds transfer ~~((when available))~~. As used in this section, "electronic funds transfer" means any transfer of funds, other than a transaction originated by check, draft, or similar paper instrument, which is initiated through an electronic terminal, telephonic instrument, or computer or magnetic tape so as to order, instruct, or authorize a financial institution to debit or credit an account.

(3) The department will not issue a background check clearance authorization to a subject individual:

(a) Who fails to pay the required fees in subsection (1) of this section; or

(b) Whose ~~((check, money order, or electronic funds transfer))~~ payment is reported as having nonsufficient funds (NSF) or is otherwise dishonored by nonacceptance or non-payment.

An additional processing fee of twenty-five dollars will be charged by the department for any check, money order, or electronic funds transfer that is reported as not having sufficient funds.

AMENDATORY SECTION (Amending WSR 18-14-078, filed 6/29/18, effective 7/1/18)

**WAC 110-06-0045 ((Noncriminal)) Background checks for minor individuals under sixteen years of age.**

(1) When applicable within ~~((Title 170))~~ chapter 110-300 WAC, an agency, licensee, or certified facility must have subject individuals complete the required ~~((DEL noncriminal))~~ DCYF minor individual background check application process for subject individuals:

(a) Fourteen to sixteen years of age, ~~((within seven days after the subject individual starts to work in the))~~ prior to the date of hire by a licensed or certified child care.

(b) Thirteen to sixteen years of age residing in a licensed or certified family home child care.

(c) Thirteen to sixteen years of age, within seven days after moving into the licensed family home child care.

(2) A subject individual identified in subsection (1)(a), (b) or (c) of this section must not have unsupervised access to children in child care.

~~(3) ((The licensee must verify annually that each subject individual who is required to have a noncriminal background check has either obtained a department clearance or has applied for a department noncriminal background check. The verification must be submitted with the licensee's annual license fee and declarations.~~

~~(4))~~ When conducting a ~~((noncriminal))~~ minor individual background check, the department:

(a) Requires the minor's parent or guardian to sign the noncriminal background check application;

(b) Does not review convictions or pending charges for immediate disqualification for crimes under WAC ~~((170-06-0050(1)))~~ 110-06-0050(1), unless the conviction was the result of prosecution of the juvenile as an adult; and

(c) Does not immediately disqualify an individual for a conviction under WAC ~~((170-06-0070))~~ 110-06-0070 (1) and (2), unless the conviction was the result of prosecution of the juvenile as an adult.

#### NEW SECTION

**WAC 110-06-0046 Requirements for license-exempt in-home/relative providers.** (1) The background check process must be completed for:

(a) All license-exempt in-home/relative providers who apply to care for a WCCC consumer's child; and

(b) Any individual sixteen years of age or older who is residing with a license-exempt in-home/relative provider when the provider cares for the child in the provider's own home where the child does not reside.

(2) Additional background checks must be completed for individuals listed in subsection (1)(a) and (b) of this section when an individual sixteen years of age or older is newly residing with a license-exempt in-home/relative provider when the provider cares for the child in the provider's own home where the child does not reside.

(3) The background check process for license-exempt in-home/relative providers requires:

(a) Submitting a completed background check application; and

(b) Completing the required fingerprint process.

(4) Each subject individual completing the DCYF background check process must disclose:

(a) Whether he or she has been convicted of any crime;

(b) Whether he or she has any pending criminal charges; and

(c) Whether he or she has been subject to any negative actions, as defined by WAC 110-06-0020.

(5) A subject individual must not have unsupervised access to children in care unless he or she has obtained DCYF background check clearance authorization under this chapter.

(6) A subject individual who has been disqualified by DCYF must not be present on the premises when early learning services are provided to children.

(7) DCYF pays for the cost of the background check process. The fees include:

(a) Fingerprint process fees as defined by the Washington state patrol, Federal Bureau of Investigation and the DCYF fingerprint contractor; and

(b) The DCYF administrative fee.

AMENDATORY SECTION (Amending WSR 18-14-078, filed 6/29/18, effective 7/1/18)

**WAC 110-06-0070 Disqualification.**

**Background information that will disqualify a subject individual.**

(1) A subject individual who has a background containing any of the permanent convictions on the ~~((director's))~~ secretary's list, WAC ~~((170-06-0120(1)))~~ 110-06-0120(1), will be permanently disqualified from ~~((providing licensed child care,))~~ caring for children or having unsupervised access to children receiving early learning services.

(2) A subject individual who has a background containing any of the nonpermanent convictions on the ~~((director's))~~ secretary's list, WAC ~~((170-06-0120(2)))~~ 110-06-0120(2), will be disqualified from providing licensed child care, caring for children or having unsupervised access to children receiving early learning services for five years after the conviction date.

(3) A subject individual will be disqualified when ~~((their))~~ his or her background contains a negative action, as defined in WAC ~~((170-06-0020))~~ 110-06-0020 that relates to:

(a) An act, finding, determination, decision, or the commission of abuse or neglect of a child as defined in chapters 26.44 RCW and ~~((388-15))~~ 110-30 WAC.

(b) An act, finding, determination, decision, or commission of abuse or neglect or financial exploitation of a vulnerable adult as defined in chapter 74.34 RCW.

~~((Background information that may disqualify a subject individual.))~~

(4) A subject individual who has a "founded" finding for child abuse or neglect will not be authorized to care for or have unsupervised access to children during the administrative hearing and appeals process.

(5) Background information that may disqualify a subject individual. A subject individual may be disqualified for other negative action(s), as defined in WAC ~~((170-06-0020))~~ 110-06-0020 which reasonably relate to his or her character, suitability, or competence to care for or have unsupervised access to children receiving early learning services.

~~((5))~~ (6) A subject individual may be disqualified from caring for or having unsupervised access to children if the

individual is the subject of a pending child protective services (CPS) investigation.

~~((6) A subject individual who has a "founded" finding for child abuse or neglect will not be authorized to care for or have unsupervised access to children during the administrative hearing and appeals process.))~~

(7) The department may also disqualify a subject individual if that person has other nonconviction background information that renders him or her unsuitable to care for or have unsupervised access to children receiving early learning services. Among the factors the department may consider are:

(a) The subject individual attempts to obtain a license, certification, or authorization by deceitful means, such as making false statements or omitting material information on an application.

(b) The subject individual used illegal drugs or misused or abused prescription drugs or alcohol that either affected their ability to perform their job duties while on the premises when children were present or presented a risk of harm to any child receiving early learning services.

(c) The subject individual attempted, committed, permitted, or assisted in an illegal act on the premises. For purposes of this subsection, a subject individual attempted, committed, permitted, or assisted in an illegal act if he or she knew or reasonably should have known that the illegal act occurred or would occur.

(d) Subject to federal and state law, the subject individual lacks sufficient physical or mental health to meet the needs of children receiving early learning services.

(e) The subject individual had a license or certification for the care of children or vulnerable adults terminated, revoked, suspended or denied.

AMENDATORY SECTION (Amending WSR 18-14-078, filed 6/29/18, effective 7/1/18)

**WAC 110-06-0090 Administrative hearing to contest disqualification.**

(1) A subject individual may request an administrative hearing to contest the department's disqualification decision under WAC ~~((170-06-0070))~~ 110-06-0070.

(2) The ~~((licensee or prospective employer))~~ early learning services provider cannot contest the department's decision on behalf of any other person, including a prospective employee.

(3) The administrative hearing will take place before an administrative law judge employed by the office of administrative hearings, pursuant to chapter 34.05 RCW, and chapter ~~((170-03))~~ 110-03 WAC.

REPEALER

The following section of the Washington Administrative Code is repealed:

WAC 110-06-0060 Additional information the department may consider.

AMENDATORY SECTION (Amending WSR 18-14-078, filed 6/29/18, effective 7/1/18)

**WAC 110-06-0042 Departmental investigation and redetermination.** (1) The department will investigate and conduct a redetermination of the background clearance of a subject individual if the department receives a complaint or information from individuals, a law enforcement agency, or other federal, state, or local government agency.

(2) Subject to the requirements in RCW ~~((43.215.215))~~ 43.216.270, the department may immediately suspend or modify the subject individual's background clearance.

(3) Subject to the requirements in RCW ~~((43.215.300 and 43.215.305))~~ 43.216.300 and 43.216.305, and based on a determination that a subject individual lacks the appropriate character, suitability, or competence to provide ~~((child care or))~~ early learning services to children, the department may disqualify the subject individual from having any unsupervised access to children ~~((receiving early learning services)).~~

AMENDATORY SECTION (Amending WSR 18-14-078, filed 6/29/18, effective 7/1/18)

**WAC 110-06-0043 Failure to report nonconviction and conviction information.** (1) The early learning services provider must report to the department within twenty-four hours if he or she has knowledge of the following with respect to a subject individual ~~((working in that child care agency or who resigns or is terminated with or without cause))~~ associated with their services, who has a background check clearance authorization with the department:

(a) Any nonconviction and conviction information for a crime listed in WAC ~~((170-06-0120))~~ 110-06-0120;

(b) Any other nonconviction and conviction information for a crime that could be reasonably related to the subject individual's suitability to provide care for or have unsupervised access to children in care; or

(c) Any negative action as defined in WAC ~~((170-06-0020))~~ 110-06-0020.

(2) A subject individual who has been issued a background check clearance authorization pursuant to WAC ~~((170-06-0040))~~ 110-06-0040 must report nonconviction and conviction information to the department involving a disqualifying crime under WAC ~~((170-06-0120))~~ 110-06-0120 against that subject individual within twenty-four hours after he or she becomes aware of the event constituting the non-conviction or conviction information.

(3) A subject individual who intentionally or knowingly fails to report to the department as provided in subsection (1) or (2) of this section may have his or her background check clearance suspended. This penalty will be in addition to any other penalty that may be imposed as a result of a violation of this chapter or ~~((chapter 170-151, 170-295, or 170-296A WAC))~~ of the applicable provisions of any chapter of Title 110 WAC that implement the authority and requirements of chapter 43.216 RCW.

AMENDATORY SECTION (Amending WSR 18-14-078, filed 6/29/18, effective 7/1/18)

**WAC 110-06-0050 Department action following completion of background inquiry.** As part of the background check process the department will conduct a character, suitability or competence assessment as follows:

(1) Compare the background information with the ~~((DEL director's))~~ DCYF secretary's list, WAC ~~((170-06-0120))~~ 110-06-0120, to determine whether the subject individual must be disqualified under WAC ~~((170-06-0070))~~ 110-06-0070 (1) and (2). In doing this comparison, the department will use the following rules:

(a) A pending charge for a crime or a deferred prosecution is given the same weight as a conviction.

(b) If the conviction has been renamed it is given the same weight as the previous named conviction. ~~((For example, larceny is now called theft.))~~

(c) Convictions whose titles are preceded with the word "attempted" are given the same weight as those titles without the word "attempted."

(d) The term "conviction" has the same meaning as the term "conviction record" as defined in RCW 10.97.030 and may include convictions or dispositions for crimes committed as either an adult ~~((or a juvenile))~~. It may also include convictions or dispositions for offenses for which the person received a deferred or suspended sentence, unless the record has been expunged according to law.

(e) Convictions and pending charges from other states or jurisdictions will be treated the same as a crime or pending charge in Washington state. If the elements of the crime from the foreign jurisdiction are not identical or not substantially similar to its Washington equivalent or if the foreign statute is broader than the Washington definition of the particular crime, the defendant's conduct, as evidenced by the indictment or information, will be analyzed to determine whether the conduct would have violated the comparable Washington statute.

(f) The crime will not be considered a conviction for the purposes of the department when the conviction has been the subject of an expungement, pardon, annulment, certification of rehabilitation, or other equivalent procedure based on a finding of the rehabilitation of the person convicted, or the conviction has been the subject of a pardon, annulment, or other equivalent procedure based on a finding of innocence.

(2) Evaluate any negative action information to determine whether the subject individual has any negative actions requiring disqualification under WAC ~~((170-06-0070(3)))~~ 110-06-0070(3).

(3) Evaluate any negative action information and any other pertinent background information, including nondisqualifying criminal convictions, to determine whether disqualification is warranted under WAC ~~((170-06-0070(4), (5) or (7)))~~ 110-06-0070(5), (6), or (7).

(4) ~~((Except for the protected contents of the FBI record of arrest and prosecution (RAP) sheet and subject to federal regulation, the department may discuss the results of the criminal history and background check information with the authorized personnel of the early learning service provider.))~~ If DCYF has reason to believe that additional information is needed to determine the character, suitability or competence

of the subject individual to care for or have unsupervised access to children receiving early learning services, additional information will be requested. The subject individual must provide to the department any additional reports or information that it requests.

AMENDATORY SECTION (Amending WSR 18-14-078, filed 6/29/18, effective 7/1/18)

**WAC 110-06-0080 Notification of disqualification.**

(1) The department will notify the subject individual in writing if he or she is disqualified by the background check.

(2) If the department sends a notice of disqualification, the subject individual will not be authorized to care for or have unsupervised access to children receiving early learning services, or to be present on the early learning service's premises during the hours for which child care is provided.

(3) Any decision by the department to disqualify a subject individual under this chapter is effective immediately upon receipt of written notice from the department to the subject individual.

AMENDATORY SECTION (Amending WSR 18-14-078, filed 6/29/18, effective 7/1/18)

**WAC 110-06-0100 Request for administrative hearing.**

(1) Any subject individual has a right to contest the department's disqualification decision under WAC ~~((170-06-0070))~~ 110-06-0070 and must request a hearing within twenty-eight days of receipt of the written disqualification decision, regardless of whether the subject individual requests ~~((that the licensing supervisor review))~~ a department reconsideration of the disqualification under WAC 110-06-0115.

(2) A request for a hearing must meet the requirements of chapter ~~((170-03))~~ 110-03 WAC.

(3) Any decision by the department to disqualify a subject individual under this chapter will remain in effect pending the outcome of the administrative hearing or review under chapter ~~((170-03))~~ 110-03 WAC, notwithstanding any provision of chapter ~~((170-03))~~ 110-03 WAC to the contrary.

AMENDATORY SECTION (Amending WSR 18-14-078, filed 6/29/18, effective 7/1/18)

**WAC 110-06-0110 Limitations on challenges to disqualifications.** (1) If the disqualification is based on a criminal conviction, the subject individual cannot contest the conviction in the administrative hearing.

(2) If the disqualification is based on a finding of child abuse or neglect, or a finding of abandonment, abuse, neglect, exploitation, or financial exploitation of a vulnerable adult as defined in chapter 74.34 RCW, the subject individual cannot contest the finding if:

(a) The subject individual was notified of the finding by the department of social and health services (DSHS) and failed to request a hearing to contest the finding; or

(b) The subject individual was notified of the finding by DSHS and requested a hearing to contest the finding, but the finding was upheld by final administrative order or superior court order.

(3) If the disqualification is based on a court order finding the subject individual's child to be dependent as defined in chapter 13.34 RCW, the subject individual cannot contest the finding of dependency in the administrative hearing.

(4) If the disqualification is based on a negative action as defined in WAC ~~((170-06-0020))~~ 110-06-0020 the subject individual cannot contest the underlying negative action in the administrative hearing if the subject individual was previously given the right of review or hearing right and a final decision or finding has been issued.

AMENDATORY SECTION (Amending WSR 18-14-078, filed 6/29/18, effective 7/1/18)

**WAC 110-06-0115 Reconsideration of disqualification.** (1) Subject to the requirements contained in chapter ~~((170-06))~~ 110-06 WAC the department may reconsider an earlier decision to disqualify a subject individual.

(2) ~~((The disqualified subject individual must submit with his or her request for reconsideration a current and complete background check form and fingerprint card pursuant to WAC 170-06-0040.~~

~~((3)))~~ For a disqualification based on WAC ~~((170-06-0070(4), 170-06-0070(7)(a), (e), or (e)))~~ 110-06-0070 (5) or (7)(a), (c), or (e), a disqualified subject individual's request for reconsideration will be granted only if the disqualified subject individual establishes by clear and convincing evidence there has been a change of circumstances since the date of the disqualification that demonstrates there is nothing about the subject individual's character, suitability, or competence that would prevent the subject individual from caring for or having unsupervised access to children receiving early learning services. For purposes of ~~((3)))~~ subsection (2) of this ~~((subsection))~~ section a disqualification based on a "negative action," WAC ~~((170-06-0070(4), 170-06-0070(7)(e) or (e)))~~ 110-06-0070 (5) or (7)(c) or (e) does not include a decision, final determination, or finding made by an agency or administrative law judge that relates to:

(a) The commission of abuse or neglect of a child as defined in chapters 26.44 RCW and 388-15 WAC; or

(b) The commission of abuse or neglect of a vulnerable adult as defined in chapter 74.34 RCW.

~~((4)))~~ (3) For a disqualification based on any of the circumstances described in WAC ~~((170-06-0070(3), 170-06-0070(7)(b) or (d)))~~ 110-06-0070 (3) and (7)(b) or (d), a disqualified subject individual's request for reconsideration will be granted only if the disqualified subject individual establishes by clear and convincing evidence there has been a change of circumstances since the date of the disqualification that demonstrates there is nothing about the subject individual's character, suitability, or competence that would constitute a danger to a child's welfare if the individual is allowed to care for or have unsupervised access to children in care.

~~((5)))~~ (4) The department will not reconsider qualifying a subject individual that was disqualified under WAC ~~((170-06-0120(1)))~~ 110-06-0120(1).

~~((6)))~~ (5) The department will not reconsider qualifying a subject individual that was disqualified under WAC ~~((170-06-0120(2)))~~ 110-06-0120(2) for a period of five years from the date of the disqualifying conviction.

AMENDATORY SECTION (Amending WSR 18-14-078, filed 6/29/18, effective 7/1/18)

**WAC 110-06-0120 ((Director's)) Secretary's list.** (1) A subject individual's conviction for any crimes listed in column (a) in the table below will permanently disqualify him or her from authorization to care for or have unsupervised access to children receiving early learning services.

(2) A subject individual's conviction for any crime listed in column (b) in the table below will disqualify him or her from authorization to care for or have unsupervised access to children receiving early learning services for a period of five years from the date of conviction.

<b>(a) Crimes that permanently disqualify a subject individual</b>	<b>(b) Crimes that disqualify a subject individual for five years from date of conviction</b>
Abandonment of a child	Abandonment of a dependent person not against child
Arson	Assault 3 not domestic violence
Assault 1	Assault 4/simple assault
Assault 2	Burglary
Assault 3 domestic violence	Coercion
Assault of a child	Custodial assault
Bail jumping	Custodial sexual misconduct
	Extortion 2
Child buying or selling	Forgery
Child molestation	Harassment
Commercial sexual abuse of a minor	
Communication with a minor for immoral purposes	Identity theft
Controlled substance homicide	Leading organized crime
Criminal mistreatment	Malicious explosion 3
Custodial interference	Malicious mischief
Dealing in depictions of minor engaged in sexually explicit conduct	Malicious placement of an explosive 2
Domestic violence (felonies only)	Malicious placement of an explosive 3
Drive-by shooting	Malicious placement of imitation device 1
Extortion 1	Patronizing a prostitute
Harassment domestic violence	Possess explosive device
Homicide by abuse	Promoting pornography
Homicide by watercraft	Promoting prostitution 1

<b>(a) Crimes that permanently disqualify a subject individual</b>	<b>(b) Crimes that disqualify a subject individual for five years from date of conviction</b>
Incendiary devices (possess, manufacture, dispose)	Promoting prostitution 2
Incest	Promoting suicide attempt
Indecent exposure/public indecency (felonies only)	Prostitution
Indecent liberties	Reckless endangerment
Kidnapping	Residential burglary
Luring	Stalking
Malicious explosion 1	Theft
Malicious explosion 2	Theft-welfare
Malicious harassment	Unlawful imprisonment
Malicious mischief domestic violence	Unlawful use of a building for drug purposes
Malicious placement of an explosive 1	Violation of the Imitation Controlled Substances Act (manufacture/deliver/intent)
Manslaughter	Violation of the Uniform Controlled Substances Act (manufacture/deliver/intent)
Murder/aggravated murder	Violation of the Uniform Legend Drug Act (manufacture/deliver/intent)
	Violation of the Uniform Precursor Drug Act (manufacture/deliver/intent)
Possess depictions minor engaged in sexual conduct	
Rape	
Rape of child	
Robbery	
Selling or distributing erotic material to a minor	
Sending or bringing into the state depictions of a minor	
Sexual exploitation of minors	
Sexual misconduct with a minor	
Sexually violating human remains	
Use of machine gun in felony	
Vehicular assault	

(a) Crimes that permanently disqualify a subject individual	(b) Crimes that disqualify a subject individual for five years from date of conviction
Vehicular homicide (negligent homicide)	
Violation of child abuse restraining order	
Violation of civil anti-harassment protection order	
Violation of protection/contact/restraining order	
Voyeurism	

**AMENDATORY SECTION** (Amending WSR 18-14-078, filed 6/29/18, effective 7/1/18)

**WAC 110-15-0034 Providers' responsibilities.** Child care providers who accept child care subsidies must do the following:

- (1) ~~((Comply with:~~
  - ~~(a) All of the DEL child care licensing or certification requirements as provided in chapter 170-295, 170-296A, or 170-297 WAC, for child care providers who are licensed or certified; or~~
  - ~~(b) All of the requirements in WAC 170-290-0130 through 170-290-0167, 170-290-0250, and 170-290-0268, for child care providers who provide in home/relative care;~~
- (2) Report pending charges or convictions to DSHS as provided in:
  - ~~(a) Chapter 170-295, 170-296A, or 170-297 WAC, for child care providers who are licensed or certified; or~~
  - ~~(b) WAC 170-290-0138 (2) and (3), for child care providers who provide in home/relative care;~~
- ~~(3) Keep)) Licensed or certified child care providers who accept child care subsidies must comply with all child care licensing or certification requirements contained in this chapter, chapter 43.216 RCW and chapters 110-06, 110-300, 110-300A, 110-300B, and 110-305 WAC.~~
- (2) In-home/relative child care providers must comply with the requirements contained in this chapter, chapter 43.216 RCW, and chapters 110-06 and 110-16 WAC.
- (3) In-home/relative child care providers must not submit an invoice for more than six children for the same hours of care.
- (4) All child care providers must use DCYF's electronic attendance recordkeeping system or a DCYF-approved electronic attendance recordkeeping system as required by WAC 110-15-0126. Providers must limit attendance system access to authorized individuals and for authorized purposes, and maintain physical and environmental security controls.
  - (a) Providers using DCYF's electronic recordkeeping system must submit monthly attendance records prior to claiming payment. Providers using a DCYF-approved elec-

tronic recordkeeping system must finalize attendance records prior to claiming payment.

(b) Providers must not edit attendance records after making a claim for payment.

(5) All child care providers must complete and maintain accurate daily attendance records ((for children in their care, and allow access to DEL to inspect attendance records during all hours in which authorized child care is provided as follows:

(a) Current attendance records (including records from the previous twelve months) must be available immediately for review upon request by DEL.

(b) Attendance records older than twelve months to five years must be provided to DSHS or DEL within two weeks of the date of a written request from either department. Beginning July 1, 2017, or upon ratification of the 2017-19 collective bargaining agreement with SEIU 925, whichever occurs later, the records must be provided)). If requested by DCYF or DSHS, the provider must provide to the requesting agency the following records:

(a) Attendance records must be provided to DCYF or DSHS within twenty-eight ((consecutive)) calendar days of the date of a written request from either department.

~~((c) Failure to make available attendance records as provided in this subsection may:~~

- ~~(i) Result in the immediate suspension of the provider's subsidy payments; and~~
- ~~(ii) Establish a provider overpayment as provided in WAC 170-290-0268;~~

~~(4) Keep)) (b) Pursuant to WAC 110-15-0268, the attendance records delivered to DCYF or DSHS may be used to determine whether a provider overpayment has been made and may result in the establishment of an overpayment and in an immediate suspension of the provider's subsidy payment.~~

(6) All child care providers must maintain and provide receipts for billed field trip/quality enhancement fees as follows. If requested by DCYF or DSHS, the provider must provide the following receipts for billed field trip/quality enhancement fees:

(a) Receipts from the previous twelve months must be available immediately for review upon request by ((DEL)) DCYF;

(b) Receipts from one to five years old must be provided ((to DSHS or DEL)) within ((two weeks)) twenty-eight days of the date of a written request from either department((;

~~(5) Allow consumers access to their child at all times while the child is in care;~~

~~(6));~~

(7) All child care providers must collect copayments directly from the consumer or the consumer's third-party payor, and report to ((DSHS)) DCYF if the consumer has not paid a copayment to the provider within the previous sixty days((;

~~(7) Follow)).~~

(8) All child care providers must follow the billing procedures((;

(a) As described in the most current version of "Child Care Subsidies: A Guide for Licensed and Certified Family Home Child Care Providers,"; or

~~(b) As described in the most current version of "Child Care Subsidies: A Guide for Family, Friends and Neighbors Child Care Providers"; or~~

~~(c) As described in the most current version of "Child Care Subsidies: A Guide for Licensed and Certified Child Care Centers."~~

~~(8) Not) required by DCYF.~~

~~(9) Child care providers who accept child care subsidies must not:~~

~~(a) Claim a payment in any month a child has not attended at least one day within the authorization period in that month((-~~

~~(9) Invoice the state no later than one calendar year after the actual date of service;~~

~~(10) For both)); however, in the event a ten-day notice terminating a provider's authorization extends into the following month, the provider may claim a payment for any remaining days of the ten calendar day notice in that following month;~~

~~(b) Submit an invoice for payment later than one calendar year after the actual date of service; or~~

~~(c) Charge consumers the difference between the provider's customary rate and the maximum allowed state rate.~~

~~(10) Licensed and certified providers ((and in-home/relative providers;)) must not charge ((subsidized families the difference between the provider's customary rate and the maximum allowed state rate; and~~

~~(11) For licensed and certified providers, not charge subsidized families for:~~

~~(a) Registration fees in excess of what is paid by subsidy program rules;~~

~~(b) Absent days on days in which the child is scheduled to attend and authorized for care;~~

~~(c) Handling fees to process consumer copayments, child care services payments, or paperwork;~~

~~(d) Fees for materials, supplies, or equipment required to meet licensing rules and regulations; or~~

~~(e) Child care or fees related to subsidy billing invoices that are in dispute between the provider and the state)) consumers for:~~

~~(a) Registration fees in excess of what is paid by subsidy program rules;~~

~~(b) Days for which the child is scheduled and authorized for care but absent;~~

~~(c) Handling fees to process consumer copayments, child care services payments, or paperwork;~~

~~(d) Fees for materials, supplies, or equipment required to meet licensing rules and regulations; or~~

~~(e) Child care or fees related to subsidy billing invoices that are in dispute between the provider and the state.~~

~~(11) Providers who care for children in states bordering Washington state must verify they are in compliance with their state's licensing regulations and notify DCYF within ten days of any suspension, revocation, or changes to their license.~~

AMENDATORY SECTION (Amending WSR 18-14-078, filed 6/29/18, effective 7/1/18)

**WAC 110-15-0125 ((Eligible)) Approved child care providers.** ~~((To receive payment under the WCCC program, a consumer's child care provider must be:))~~ (1) ~~((An))~~ In-home/relative providers. ~~((Providers other than those specified in subsection (2) of this section must meet the requirements in WAC 170-290-0130; or))~~ To be approved to receive benefits under the WCCC program, an in-home/relative provider must comply with the applicable requirements contained in this chapter, chapter 43.216 RCW, and chapters 110-06 and 110-16 WAC.

~~(2) ((A licensed, certified, or DEL contracted provider.~~

~~(a)) Licensed providers ((must:~~

~~(i) Be currently licensed as required by chapter 43.215 RCW and as described by chapters 170-295, 170-296A, or 170-297 WAC; or~~

~~(ii) Meet the provider's)).~~

~~(a) To be approved to receive payment under the WCCC program, a licensed provider must comply with the requirements of this chapter, chapter 43.216 RCW, and chapters 110-06, 110-300, 110-300A, 110-300B, and 110-305 WAC.~~

~~(b) A provider who cares for a child who is a Washington resident in a state that borders Washington must:~~

~~(i) Be licensed to provide care in the bordering state;~~

~~(ii) Comply with the bordering state's licensing regulations ((, for providers who care for children in states bordering Washington, DSHS pays));~~

~~(iii) Comply with the electronic attendance requirements contained in WAC 110-15-0126.~~

~~(c) The lesser of the following will be paid to a qualified, licensed child care ((facilities in bordering states)) provider in a state that borders Washington:~~

~~((A)) (i) The provider's private pay rate for that child; or~~

~~((B) The DSHS)) (ii) The DCYF maximum ((child care)) WCCC subsidy daily rate for the ((DSHS)) DCYF region where the child resides.~~

~~((B)) (d) A licensed provider in a state that borders Washington that receives WCCC subsidy payment to care for a child who is a Washington resident is not required or eligible to participate in the early achievers program or to receive quality improvement awards, tiered reimbursements, or other awards and incentives associated with the early achievers program.~~

~~(3) Certified providers ((are exempt from licensing but certified by DEL, such as)). To be approved to receive payment under the WCCC program, a certified provider must comply with the certification requirements contained in this chapter, chapter 43.216 RCW, and chapters 110-06, 110-300, 110-300A, 110-300B, and 110-305 WAC. Certified providers include:~~

~~((+)) (a) Tribal child care facilities that meet the requirements of tribal law;~~

~~((+)) (b) Child care facilities on a military installation; ((and~~

~~((+))~~

~~(c) Child care facilities operated on public school property by a school district((-~~

~~(c) New child care providers, as defined in WAC 170-290-0003, who are subject to licensure or are certified to receive state subsidy as required by chapter 43.215 RCW and as described by chapter 170-295, 170-296A, or 170-297 WAC, who received); and~~

~~(d) Seasonal day camps that contract with DCYF to provide subsidized child care.~~

(4) Early achievers program requirements for licensed and certified child care providers that receive their first WCCC payment on or after July 1, 2016:

(a) A licensed or certified child care provider that first receives a WCCC subsidy payment on or after July 1, 2016, for providing nonschool age child care ((on or after July 1, 2016, and received no such payments during the period July 1, 2015, through June 30, 2016,)) must complete the following activities to be eligible to receive additional WCCC payments:

(i) Enroll in the early achievers program within thirty days of receiving the ((initial state)) first WCCC subsidy payment. A licensed or certified provider ((who)) that fails to meet this requirement will lose ((eligibility)) DCYF approval to receive ((state)) WCCC subsidy payments for providing nonschool age child care((-

(A) Out-of-state providers that provide care for children receiving Washington state child care subsidies are neither required nor eligible to participate in early achievers; and

(B) Out-of-state providers are not eligible to receive quality improvement awards, tiered reimbursement, or other awards and incentives associated with participation in early achievers.

(ii) Adhere to the provisions for participation as outlined in the most recent version of the *Early Achievers Operating Guidelines*. Failure to adhere to these guidelines may result in a provider's loss of eligibility to receive state subsidy payments nonschool age child care;

~~((iii));~~

(ii) Complete level 2 activities in the early achievers program within twelve months of enrollment. A licensed or certified provider ((who)) that fails to meet this requirement will lose ((eligibility)) DCYF approval to receive ((state)) DCYF subsidy payments for providing nonschool age child care;

~~((iv))~~ (iii) Rate at a level 3 or higher in the early achievers program within thirty months of enrollment. ((If an eligible)) A licensed or certified provider that fails to ((rate at a level 3 or higher)) meet this requirement within thirty months of enrollment in the early achievers program, ((the provider)) must complete remedial activities with ((the department)) DCYF and rate at a level 3 or higher within six months of beginning remedial activities. A licensed or certified provider ((who fails to receive a rating within thirty months of enrollment or)) that fails to rate at a level 3 or higher within six months of beginning remedial activities will lose ((eligibility)) DCYF approval to receive ((state)) WCCC subsidy payments for providing nonschool age child care; and

~~((v) Maintain an up-to-date rating by renewing))~~ (iv) Renew their facility rating every three years and ((maintaining)) maintain a rating level 3 or higher. If a licensed or certified provider fails to renew their facility rating or maintain a rating level 3 or higher, ((they)) the licensed or certified provider will lose ((eligibility)) DCYF approval to receive

~~((state)) WCCC subsidy payments for providing nonschool age child care.~~

~~((d) Existing child care providers who are subject to licensure or are certified to receive state subsidy as required by chapter 43.215 RCW and as described by chapter 170-295, 170-296A, or 170-297 WAC, who have received a subsidy payment for a nonschool age child in the period July 1, 2015, through June 30, 2016, must)) (b) Licensed and certified providers must comply with the provisions for participation as outlined in the early achievers operating guidelines. Failure to comply with these guidelines may result in a licensed or certified provider's loss of DCYF approval to receive WCCC subsidy payments for providing nonschool age child care.~~

(5) Early achievers program requirements for licensed and certified child care providers that received a WCCC payment on or between July 1, 2015, and June 30, 2016:

(a) A licensed or certified child care provider that received a WCCC subsidy payment on or between July 1, 2015, and June 30, 2016, for providing nonschool age child care, must complete the following activities to be eligible to receive additional WCCC subsidy payments:

(i) Enroll in the early achievers program by August 1, 2016. A licensed or certified provider ((who)) that fails to meet this requirement will lose ((eligibility)) DCYF approval to receive ((state)) WCCC subsidy payments for providing nonschool age child care;

~~((A) Out-of-state providers that provide care for children receiving Washington state child care subsidies are neither required nor eligible to participate in early achievers; and~~

~~(B) Out-of-state providers are not eligible to receive quality improvement awards, tiered reimbursement, or other awards and incentives associated with participation in early achievers.))~~

(ii) Complete level 2 activities in the early achievers program by August 1, 2017. A provider who ((fails)) failed to meet this requirement will lose ((eligibility)) DCYF approval to receive ((state)) WCCC subsidy payments for nonschool age child care; and

(iii) Rate at a level 3 or higher in the early achievers program by December 31, 2019(;

~~((iv) If an existing))~~ A licensed or certified provider that fails to ((rate at a level 3 or higher)) meet this requirement by December 31, 2019, ((in the early achievers program, the provider)) must complete remedial activities with ((the department)) DCYF and rate at a level 3 or higher by June 30, 2020. A licensed or certified provider ((who)) that fails to receive a rating by December 31, 2019, or fails to rate at a level 3 or higher by June 30, 2020, after completing remedial activities will lose ((eligibility)) DCYF approval to receive ((state)) WCCC subsidy payments for providing nonschool age child care(; and

~~((v) Maintain an up-to-date rating by renewing)).~~

(b) Licensed and certified providers must renew their facility rating every three years and ((maintaining)) maintain a rating level 3 or higher. If a licensed or certified provider fails to renew their facility rating or maintain a rating level 3 or higher, ((they)) licensed or certified providers will lose ((eligibility)) DCYF approval to receive ((state)) WCCC subsidy payments for providing nonschool age child care.

~~((e))~~ (6) If a licensed or certified child care provider ~~((serving))~~ receiving WCCC subsidy payment for providing nonschool age ~~((children, as defined in WAC 170-290-0003, and receiving state subsidy payments for nonschool age child care))~~ has successfully completed all level 2 activities and is waiting to be rated, the licensed or certified provider may continue to receive ~~((a state))~~ WCCC subsidy payments pending the successful completion of the level 3 rating activity.

~~((f) DEL contracted))~~ DCYF-contracted seasonal day camps have a contract with DEL to provide subsidized child care.

AMENDATORY SECTION (Amending WSR 18-14-078, filed 6/29/18, effective 7/1/18)

**WAC 110-15-0250 Eligible provider capacity and payment.** (1) DSHS may pay:

(a) Licensed and certified providers for authorized care up to the provider's licensed capacity as determined under WAC ~~((170-297-5625, 170-295-0080, or 170-296A-5700))~~ 110-300B-5700, 110-300A-0080, or 110-305-5625, as appropriate; and

(b) In-home/relative providers for authorized care up to a maximum of six eligible children ~~((as provided in WAC 170-290-0138.~~

~~(2) Licensed providers may not bill the state for more than the number of children they have in their licensed capacity and who are authorized to receive child care subsidies.~~

~~(3) A violation)).~~

(2) A provider authorized to receive subsidy payment must submit an invoice only for children who have been authorized by DSHS to receive subsidy benefits. In addition, a provider must not submit an invoice for a number of children that exceeds the provider's licensed capacity.

(3) Failure to comply with the requirements of subsection (2) of this section may:

(a) Result in the immediate suspension of the provider's subsidy payments; and

(b) ~~((Establish))~~ Result in the establishment of a provider overpayment as provided in WAC ~~((170-290-0268))~~ 110-15-0268.

### REPEALER

The following sections of the Washington Administrative Code are repealed:

WAC 110-15-0135 In-home/relative providers—Information provided to DSHS.

WAC 110-15-0138 In-home/relative providers—Responsibilities.

WAC 110-15-0139 In-home/relative providers—Electronic attendance records—Records retention.

WAC 110-15-0140 In-home/relative providers—Ineligibility.

WAC 110-15-0143 In-home/relative providers—Background checks—Required persons.

WAC 110-15-0145 In-home/relative providers—Background checks—Reasons and notification.

WAC 110-15-0150 In-home/relative providers—Background checks—Included information and sources.

WAC 110-15-0155 In-home/relative providers—Background checks—Subsequent steps.

WAC 110-15-0160 In-home/relative providers—Background checks—Disqualified providers.

WAC 110-15-0165 In-home/relative providers—Background checks—Other disqualifying information.

WAC 110-15-0167 In-home/relative providers—Background checks—Disqualified person living with the provider.