

Washington State Register

FEBRUARY 4, 1998

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CITATION

Cite all material in the Washington State Register by its issue number and sequence within that issue, preceded by the acronym WSR. Example: the 37th item in the August 5, 1981, Register would be cited as WSR 81-15-037.

PUBLIC INSPECTION OF DOCUMENTS

A copy of each document filed with the code reviser's office, pursuant to chapter 34.05 RCW, is available for public inspection during normal office hours. The code reviser's office is located on the ground floor of the Legislative Building in Olympia. Office hours are from 8 a.m. to 5 p.m., Monday through Friday, except legal holidays. Telephone inquiries concerning material in the Register or the Washington Administrative Code (WAC) may be made by calling (360) 786-6697.

REPUBLICATION OF OFFICIAL DOCUMENTS

All documents appearing in the Washington State Register are prepared and printed at public expense. There are no restrictions on the republication of official documents appearing in the Washington State Register. All news services are especially encouraged to give wide publicity to all documents printed in the Washington State Register.

CERTIFICATE

Pursuant to RCW 34.08.040, the publication of rules or other information in this issue of the Washington State Register is hereby certified to be a true and correct copy of such rules or other information, except that headings of public meeting notices have been edited for uniformity of style.

DENNIS W. COOPER
Code Reviser

STATE MAXIMUM INTEREST RATE

(Computed and filed by the State Treasurer under RCW 19.52.025)

The maximum allowable interest rate applicable for the month of February 1998 pursuant to RCW 19.52.020 is twelve point zero percent (12.00%).

NOTICE: FEDERAL LAW PERMITS FEDERALLY INSURED FINANCIAL INSTITUTIONS IN THE STATE TO CHARGE THE HIGHEST RATE OF INTEREST THAT MAY BE CHARGED BY ANY FINANCIAL INSTITUTION IN THE STATE. THE MAXIMUM ALLOWABLE RATE OF INTEREST SET FORTH ABOVE MAY NOT APPLY TO A PARTICULAR TRANSACTION.

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The Washington State Register is an official publication of the state of Washington. It contains proposed, emergency, and permanently adopted administrative rules, as well as other documents filed with the code reviser's office pursuant to RCW 34.08.020 and 42.30.075. Publication of any material in the Washington State Register is deemed to be official notice of such information.

Mary F. Gallagher Dilley
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Subscription Clerk

STYLE AND FORMAT OF THE WASHINGTON STATE REGISTER

1. ARRANGEMENT OF THE REGISTER

The Register is arranged in the following six sections:

- (a) **PREPROPOSAL**-includes the Preproposal Statement of Inquiry that will be used to solicit public comments on a general area of proposed rule making before the agency files a formal notice.
- (b) **PROPOSED**-includes the full text of formal proposals, continuances, supplemental notices, and withdrawals.
- (c) **PERMANENT**-includes the full text of permanently adopted rules.
- (d) **EMERGENCY**-includes the full text of emergency rules and rescissions.
- (e) **MISCELLANEOUS**-includes notice of public meetings of state agencies, rules coordinator notifications, summaries of attorney general opinions, executive orders and emergency declarations of the governor, rules of the state Supreme Court, and other miscellaneous documents filed with the code reviser's office under RCW 34.08.020 and 42.30.075.
- (f) **TABLE**-includes a cumulative table of the WAC sections that are affected in the current year.
- (g) **INDEX**-includes a combined subject matter and agency index.

Documents are arranged within each section of the Register according to the order in which they are filed in the code reviser's office during the pertinent filing period. The three part number in the heading distinctively identifies each document, and the last part of the number indicates the filing sequence with a section's material.

2. PRINTING STYLE—INDICATION OF NEW OR DELETED MATERIAL

RCW 34.05.395 requires the use of certain marks to indicate amendments to existing agency rules. This style quickly and graphically portrays the current changes to existing rules as follows:

- (a) In amendatory sections—
 - (i) underlined material is new material;
 - (ii) ~~deleted material is ((lined out between double parentheses))~~;
- (b) Complete new sections are prefaced by the heading **NEW SECTION**;
- (c) The repeal of an entire section is shown by listing its WAC section number and caption under the heading **REPEALER**.

3. MISCELLANEOUS MATERIAL NOT FILED UNDER THE ADMINISTRATIVE PROCEDURE ACT

Material contained in the Register other than rule-making actions taken under the APA (chapter 34.05 RCW) does not necessarily conform to the style and format conventions described above. The headings of these other types of material have been edited for uniformity of style; otherwise the items are shown as nearly as possible in the form submitted to the code reviser's office.

4. EFFECTIVE DATE OF RULES

- (a) Permanently adopted agency rules normally take effect thirty-one days after the rules and the agency order adopting them are filed with the code reviser's office. This effective date may be delayed or advanced and such an effective date will be noted in the promulgation statement preceding the text of the rule.
- (b) Emergency rules take effect upon filing with the code reviser's office unless a later date is provided by the agency. They remain effective for a maximum of one hundred twenty days from the date of filing.
- (c) Rules of the state Supreme Court generally contain an effective date clause in the order adopting the rules.

5. EDITORIAL CORRECTIONS

Material inserted by the code reviser's office for purposes of clarification or correction or to show the source or history of a document is enclosed in [brackets].

1997 - 1998
DATES FOR REGISTER CLOSING, DISTRIBUTION, AND FIRST AGENCY ACTION

Issue No.	Closing Dates ¹			Distribution Date	First Agency Hearing Date ³	Expedited Adoption ⁴
	Non-OTS & 30 p. or more	Non-OTS & 11 to 29 p.	OTS ² or 10 p. max. Non-OTS			
<i>For Inclusion in--</i>	<i>File no later than 12:00 NOON--</i>			<i>Count 20 days from--</i>	<i>For hearing on or after</i>	<i>First Agency Adoption Date</i>
97-16	Jul 9	Jul 23	Aug 6	Aug 20	Sep 9	Oct 4
97-17	Jul 23	Aug 6	Aug 20	Sep 3	Sep 23	Oct 18
97-18	Aug 6	Aug 20	Sep 3	Sep 17	Oct 7	Nov 1
97-19	Aug 20	Sep 3	Sep 17	Oct 1	Oct 21	Nov 15
97-20	Sep 3	Sep 17	Oct 1	Oct 15	Nov 4	Nov 29
97-21	Sep 24	Oct 8	Oct 22	Nov 5	Nov 25	Dec 20
97-22	Oct 8	Oct 22	Nov 5	Nov 19	Dec 9	Jan 3, 1998
97-23	Oct 22	Nov 5	Nov 19	Dec 3	Dec 23	Jan 17, 1998
97-24	Nov 5	Nov 19	Dec 3	Dec 17, 1997	Jan 6, 1998	Jan 31
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98-01	Nov 26	Dec 10	Dec 24, 1997	Jan 7, 1998	Jan 27	Feb 21
98-02	Dec 10	Dec 24, 1997	Jan 7, 1998	Jan 21	Feb 10	Mar 7
98-03	Dec 24, 1997	Jan 7, 1998	Jan 21	Feb 4	Feb 24	Mar 21
98-04	Jan 7	Jan 21	Feb 4	Feb 18	Mar 10	Apr 4
98-05	Jan 21	Feb 4	Feb 18	Mar 4	Mar 24	Apr 18
98-06	Feb 4	Feb 18	Mar 4	Mar 18	Apr 7	May 2
98-07	Feb 18	Mar 4	Mar 18	Apr 1	Apr 21	May 16
98-08	Mar 4	Mar 18	Apr 1	Apr 15	May 5	May 30
98-09	Mar 25	Apr 8	Apr 22	May 6	May 26	Jun 20
98-10	Apr 8	Apr 22	May 6	May 20	Jun 9	Jul 4
98-11	Apr 22	May 6	May 20	Jun 3	Jun 23	Jul 18
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98-13	May 20	Jun 3	Jun 17	Jul 1	Jul 21	Aug 15
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98-15	Jun 24	Jul 8	Jul 22	Aug 5	Aug 25	Sep 19
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98-23	Oct 21	Nov 4	Nov 18	Dec 2	Dec 22	Jan 16, 1999
98-24	Nov 4	Nov 18	Dec 2	Dec 16, 1998	Jan 5, 1999	Jan 30

¹All documents are due at the code reviser's office by 12:00 noon on or before the applicable closing date for inclusion in a particular issue of the Register; see WAC 1-21-040.

²A filing of any length will be accepted on the closing dates of this column if it has been prepared and completed by the order typing service (OTS) of the code reviser's office; see WAC 1-21-040. Agency-typed material is subject to a ten page limit for these dates; longer agency-typed material is subject to the earlier non-OTS dates.

³At least twenty days before the rule-making hearing, the agency shall cause notice of the hearing to be published in the Register; see RCW 34.05.320(1). These dates represent the twentieth day after the distribution date of the applicable Register.

⁴A minimum of forty-five days is required between the distribution date of the Register giving notice of the expedited adoption and the agency adoption date. No hearing is required, but the public may file written objections. See RCW 34.05.230, as amended by section 202, chapter 409, Laws of 1997.

REGULATORY FAIRNESS ACT

The Regulatory Fairness Act, chapter 19.85 RCW, was enacted in 1982 to minimize the impact of state regulations on small business. Amended in 1994, the act requires a small business economic impact analysis of proposed rules that impose more than a minor cost on twenty percent of the businesses in all industries, or ten percent of the businesses in any one industry. The Regulatory Fairness Act defines industry as businesses within a four digit SIC classification, and for the purpose of this act, small business is defined by RCW 19.85.020 as "any business entity, including a sole proprietorship, corporation, partnership, or other legal entity, that is owned and operated independently from all other businesses, that has the purpose of making a profit, and that has fifty or fewer employees."

Small Business Economic Impact Statements (SBEIS)

A small business economic impact statement (SBEIS) must be prepared by state agencies when a proposed rule meets the above criteria. Chapter 19.85 RCW requires the Washington State Business Assistance Center (BAC) to develop guidelines for agencies to use in determining whether the impact of a rule is more than minor and to provide technical assistance to agencies in developing a SBEIS. All permanent rules adopted under the Administrative Procedure Act, chapter 34.05 RCW, must be reviewed to determine if the requirements of the Regulatory Fairness Act apply; if an SBEIS is required it must be completed before permanent rules are filed with the Office of the Code Reviser.

Mitigation

In addition to completing the economic impact analysis for proposed rules, state agencies must take reasonable, legal, and feasible steps to reduce or mitigate the impact of rules on small businesses when there is a disproportionate impact on small versus large business. State agencies are encouraged to reduce the economic impact of rules on small businesses when possible and when such steps are in keeping with the stated intent of the statute(s) being implemented by proposed rules. Since 1994, small business economic impact statements must contain a list of the mitigation steps taken, or reasonable justification for not taking steps to reduce the impact of rules on small businesses.

When is an SBEIS Required?

When:

The proposed rule has more than a minor (as defined by the BAC) economic impact on businesses in more than twenty percent of all industries or more than ten percent of any one industry.

When is an SBEIS Not Required?

When:

The rule is proposed only to comply or conform with a federal law or regulation, and the state has no discretion in how the rule is implemented;

There is less than minor economic impact on business;

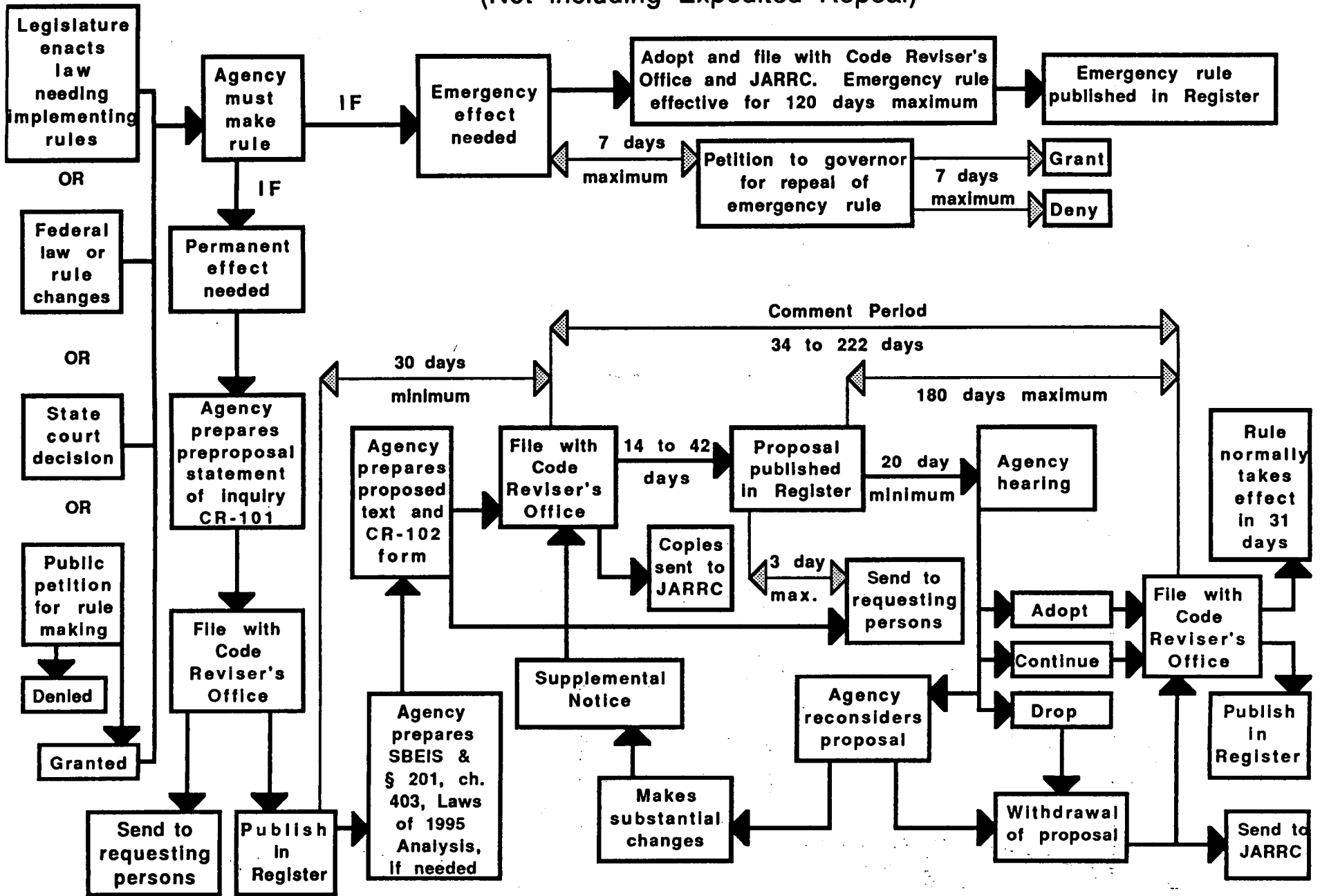
The rule REDUCES costs to business (although an SBEIS may be a useful tool for demonstrating this reduced impact);

The rule is adopted as an emergency rule, although an SBEIS may be required when an emergency rule is proposed for adoption as a permanent rule; or

The rule is pure restatement of state statute.

RULE-MAKING PROCESS

(Not including Expedited Repeal)



WSR 98-03-008**PREPROPOSAL STATEMENT OF INQUIRY
DEPARTMENT OF AGRICULTURE**

[Filed January 8, 1998, 2:18 p.m.]

Subject of Possible Rule Making: (1) Increase the hourly inspection rates (both regular and overtime), (2) eliminate the requirement for charging an additional inspection assessment of ten percent with a minimum of twelve dollars per inspection, for use of the "USDA positive lot identification inspection," (3) increasing the penalty on delinquent account balances, and (4) change all reference of "horticulture" or "horticultural" to "fruit and vegetable" to reflect language in chapter 15.17 RCW.

Statutes Authorizing the Agency to Adopt Rules on this Subject: Chapter 15.17 RCW, Standards of grades and packs.

Reasons Why Rules on this Subject may be Needed and What They Might Accomplish: (1) The purpose of this rule is to increase the hourly inspection rates (regular and overtime), within the fiscal growth factors allowed under Initiative 601. An increase in the hourly inspection rates will reduce the proportionate disparity of inspection costs between the high volume warehouses which are assessed fees on a per unit basis, and the lower volume warehouses which are assessed the hourly rate. Currently, hourly fees are \$21.50, while the costs of providing inspection services are approximately \$28.00 per hour.

(2) WAC 16-400-210(10), USDA positive lot identification, requires an additional charge of ten percent in addition to the regular inspection fee for utilizing the "USDA positive lot identification inspection procedures." The change would eliminate the requirement for charging an additional ten percent with a minimum of twelve dollars per positive lot identification inspection, when an inspector is on site performing marketing order or other type of inspections.

(3) Increasing the penalty on delinquent accounts from twelve to eighteen percent, per Office of Financial Management requirements.

(4) Change all reference of "horticulture" or "horticultural" to "fruit and vegetable" to reflect the referencing language in chapter 15.17 RCW, Standards of grades and packs.

Other Federal and State Agencies that Regulate this Subject and the Process Coordinating the Rule with These Agencies: None.

Process for Developing New Rule: Negotiated rule making.

Interested parties can participate in the decision to adopt the new rule and formulation of the proposed rule before publication by contacting Jim Quigley, Program Manager, Washington State Department of Agriculture, Fruit and Vegetable Inspection Program, P.O. Box 42560, Olympia, WA 98504-2560, phone (360) 902-1833, FAX (360) 902-2085.

January 7, 1998
Robert W. Gore
Assistant Director

WSR 98-03-021**PREPROPOSAL STATEMENT OF INQUIRY
DEPARTMENT OF LICENSING**

[Filed January 13, 1998, 10:26 a.m.]

Subject of Possible Rule Making: Chapter 308-96A WAC, Vehicle licensing, WAC 308-96A-005 through 308-96A-040, 308-96A-180, 308-96A-260, 308-96A-295, and 308-96A-300.

Statutes Authorizing the Agency to Adopt Rules on this Subject: RCW 46.01.110, 46.16.135, 46.16.225, 46.16.490, 46.16.276.

Reasons Why Rules on this Subject may be Needed and What They Might Accomplish: Rule making may be required as a result of this review in accordance with Executive Order 97-02.

Other Federal and State Agencies that Regulate this Subject and the Process Coordinating the Rule with These Agencies: None.

Process for Developing New Rule: Negotiated rule making.

Interested parties can participate in the decision to adopt the new rule and formulation of the proposed rule before publication. Interested parties are invited to participate in this rule making. Please contact Patrick, J. Zlateff, Contracts Manager, Title and Registration Services, P.O. Box 2957, Olympia, WA 98507-2957, phone (360) 902-3718, FAX (360) 664-0831, TDD (360) 664-8885. Comments are requested by March 16, 1998.

January 12, 1998
Nancy Kelly, Administrator
Title and Registration Services

WSR 98-03-022**PREPROPOSAL STATEMENT OF INQUIRY
DEPARTMENT OF LICENSING**

[Filed January 13, 1998, 10:28 a.m.]

Subject of Possible Rule Making: Chapter 308-96A WAC, Vehicle licensing, WAC 308-96A-080 through 308-96A-097.

Statutes Authorizing the Agency to Adopt Rules on this Subject: RCW 46.08.066.

Reasons Why Rules on this Subject may be Needed and What They Might Accomplish: Rule making may be required as a result of this review in accordance with Executive Order 97-02.

Other Federal and State Agencies that Regulate this Subject and the Process Coordinating the Rule with These Agencies: None.

Process for Developing New Rule: Negotiated rule making.

Interested parties can participate in the decision to adopt the new rule and formulation of the proposed rule before publication. Interested parties are invited to participate in this rule making. Please contact Patrick J. Zlateff, Contracts Manager, Title and Registration Services, P.O. Box 2957, Olympia, WA 98507-2957, phone (360) 902-3718, FAX (360) 664-0831, TDD (360) 664-8885. Comments are requested by February 17, 1998.

January 12, 1998
Nancy Kelly, Administrator
Title and Registration Services

Olympia, WA 98507-2957, phone (360) 902-3718, FAX (360) 664-0831, TDD (360) 664-8885. Comments are requested by February 17, 1998.

January 12, 1998
Nancy Kelly, Administrator
Title and Registration Services

WSR 98-03-023

**PREPROPOSAL STATEMENT OF INQUIRY
DEPARTMENT OF LICENSING**

[Filed January 13, 1998, 10:30 a.m.]

Subject of Possible Rule Making: Chapter 308-04 WAC, General provisions, WAC 308-04-010 and 308-04-020.

Statutes Authorizing the Agency to Adopt Rules on this Subject: RCW 46.01.110 and 43.24.023.

Reasons Why Rules on this Subject may be Needed and What They Might Accomplish: Rule making may be required as a result of this review in accordance with Executive Order 97-02.

Other Federal and State Agencies that Regulate this Subject and the Process Coordinating the Rule with These Agencies: None.

Process for Developing New Rule: Negotiated rule making.

Interested parties can participate in the decision to adopt the new rule and formulation of the proposed rule before publication. Interested parties are invited to participate in this rule making. Please contact Patrick J. Zlateff, Contracts Manager, Title and Registration Services, P.O. Box 2957, Olympia, WA 98507-2957, phone (360) 902-3718, FAX (360) 664-0831, TDD (360) 664-8885. Comments are requested by February 6, 1998.

January 12, 1998
Nancy Kelly, Administrator
Title and Registration Services

WSR 98-03-024

**PREPROPOSAL STATEMENT OF INQUIRY
DEPARTMENT OF LICENSING**

[Filed January 13, 1998, 10:31 a.m.]

Subject of Possible Rule Making: Chapter 308-56A WAC, Application for vehicle ownership, WAC 308-56A-005 through 308-56A-023 and 308-56A-080 through 308-56A-090.

Statutes Authorizing the Agency to Adopt Rules on this Subject: RCW 46.01.110, 46.12.101, 88.02.070.

Reasons Why Rules on this Subject may be Needed and What They Might Accomplish: Rule making may be required as a result of this review in accordance with Executive Order 97-02.

Other Federal and State Agencies that Regulate this Subject and the Process Coordinating the Rule with These Agencies: None.

Process for Developing New Rule: Negotiated rule making.

Interested parties can participate in the decision to adopt the new rule and formulation of the proposed rule before publication. Interested parties are invited to participate in this rule making. Please contact Patrick J. Zlateff, Contracts Manager, Title and Registration Services, P.O. Box 2957,

WSR 98-03-025

**PREPROPOSAL STATEMENT OF INQUIRY
DEPARTMENT OF LICENSING**

[Filed January 13, 1998, 10:32 a.m.]

Subject of Possible Rule Making: Chapter 308-93 WAC, Vessel registration and certificate of title, WAC 308-93-241 through 308-93-245.

Statutes Authorizing the Agency to Adopt Rules on this Subject: RCW 88.02.070, 88.02.100, 88.02.120.

Reasons Why Rules on this Subject may be Needed and What They Might Accomplish: Rule making may be required as a result of this review in accordance with Executive Order 97-02.

Other Federal and State Agencies that Regulate this Subject and the Process Coordinating the Rule with These Agencies: None.

Process for Developing New Rule: Negotiated rule making.

Interested parties can participate in the decision to adopt the new rule and formulation of the proposed rule before publication. Interested parties are invited to participate in this rule making. Please contact Patrick J. Zlateff, Contracts Manager, Title and Registration Services, P.O. Box 2957, Olympia, WA 98507-2957, phone (360) 902-3718, FAX (360) 664-0831, TDD (360) 664-8885. Comments are requested by February 17, 1998.

January 12, 1998
Nancy Kelly, Administrator
Title and Registration Services

WSR 98-03-026

**PREPROPOSAL STATEMENT OF INQUIRY
DEPARTMENT OF LICENSING**

[Filed January 13, 1998, 10:33 a.m.]

Subject of Possible Rule Making: Chapter 308-93 WAC, Vessel registration and certificate of title, WAC 308-93-060 through 308-93-085, 308-93-285, 308-93-300, 308-93-330, 308-93-350, 308-93-360, 308-93-420, 308-93-620, 308-93-630, and 308-93-640.

Statutes Authorizing the Agency to Adopt Rules on this Subject: RCW 88.02.070, 88.02.100.

Reasons Why Rules on this Subject may be Needed and What They Might Accomplish: Rule making may be required as a result of this review in accordance with Executive Order 97-02.

Other Federal and State Agencies that Regulate this Subject and the Process Coordinating the Rule with These Agencies: None.

Process for Developing New Rule: Negotiated rule making.

Interested parties can participate in the decision to adopt the new rule and formulation of the proposed rule before publication. Interested parties are invited to participate in this rule making. Please contact Patrick J. Zlateff, Contracts Manager, Title and Registration Services, P.O. Box 2957, Olympia, WA 98507-2957, phone (360) 902-3718, FAX (360) 664-0831, TDD (360) 664-8885. Comments are requested by March 16, 1998.

January 12, 1998
Nancy Kelly, Administrator
Title and Registration Services

WSR 98-03-027**PREPROPOSAL STATEMENT OF INQUIRY
DEPARTMENT OF LICENSING**

[Filed January 13, 1998, 10:34 a.m.]

Subject of Possible Rule Making: Chapter 308-93 WAC, Vessel registration and certificate of title, WAC 308-93-110, 308-93-120, 308-93-180, 308-93-190, 308-93-200, 308-93-210, 308-93-215, 308-93-220, 308-93-230, 308-93-290, and 308-93-295.

Statutes Authorizing the Agency to Adopt Rules on this Subject: RCW 88.02.070, 88.02.100.

Reasons Why Rules on this Subject may be Needed and What They Might Accomplish: Rule making may be required as a result of this review in accordance with Executive Order 97-02.

Other Federal and State Agencies that Regulate this Subject and the Process Coordinating the Rule with These Agencies: None.

Process for Developing New Rule: Negotiated rule making.

Interested parties can participate in the decision to adopt the new rule and formulation of the proposed rule before publication. Interested parties are invited to participate in this rule making. Please contact Patrick J. Zlateff, Contracts Manager, Title and Registration Services, P.O. Box 2957, Olympia, WA 98507-2957, phone (360) 902-3718, FAX (360) 664-0831, TDD (360) 664-8885. Comments are requested by March 16, 1998.

January 12, 1998
Nancy Kelly, Administrator
Title and Registration Services

WSR 98-03-030**PREPROPOSAL STATEMENT OF INQUIRY
DEPARTMENT OF TRANSPORTATION**

[Filed January 13, 1998, 2:45 p.m.]

Subject of Possible Rule Making: Advanced financial support payments for the conduct of public transportation feasibility studies.

Statutes Authorizing the Agency to Adopt Rules on this Subject: RCW 35.58.2712.

Reasons Why Rules on this Subject may be Needed and What They Might Accomplish: Repeal chapter 468-84 WAC, the existing administrative code, in its entirety.

Other Federal and State Agencies that Regulate this Subject and the Process Coordinating the Rule with These Agencies: None.

Process for Developing New Rule: Not applicable.

Interested parties can participate in the decision to adopt the new rule and formulation of the proposed rule before publication by contacting Paul Gamble, Public Transportation and Rail Division, P.O. Box 47387, Olympia, WA 98504-7387, phone (360) 705-7912, FAX (360) 705-6820. There are no meetings or other exchanges of information proposed that are associated with this administrative code.

January 13, 1998
Gerald E. Smith
Deputy Secretary for Operations

WSR 98-03-031**PREPROPOSAL STATEMENT OF INQUIRY
DEPARTMENT OF TRANSPORTATION**

[Filed January 13, 1998, 2:47 p.m.]

Subject of Possible Rule Making: Advanced financial support payments for the development of comprehensive transit plans.

Statutes Authorizing the Agency to Adopt Rules on this Subject: RCW 36.57A.150.

Reasons Why Rules on this Subject may be Needed and What They Might Accomplish: The existing administrative code, chapter 468-85 WAC, has been confusing to nontechnical people. Some of the requirements associated with implementing the statute need to be eliminated and others clarified.

Other Federal and State Agencies that Regulate this Subject and the Process Coordinating the Rule with These Agencies: None.

Process for Developing New Rule: Negotiated rule making; and notify interested local governments and seek comments.

Interested parties can participate in the decision to adopt the new rule and formulation of the proposed rule before publication by contacting Paul Gamble, Public Transportation and Rail Division, P.O. Box 47387, Olympia, WA 98504-7387, phone (360) 705-7912, FAX (360) 705-6820. There are no meetings that are associated with this administrative code. The Washington State Department of Transportation will mail copies of the proposed revision to interested local governments to obtain comments.

January 13, 1998
Gerald E. Smith
Deputy Secretary for Operations

WSR 98-03-032**PREPROPOSAL STATEMENT OF INQUIRY
DEPARTMENT OF TRANSPORTATION**

[Filed January 13, 1998, 2:50 p.m.]

Subject of Possible Rule Making: Pass-through of the United States Urban Mass Transportation Administration funds for public transportation technical studies.

Statutes Authorizing the Agency to Adopt Rules on this Subject: RCW 47.01.101.

Reasons Why Rules on this Subject may be Needed and What They Might Accomplish: Repeal chapter 468-82 WAC, the existing administrative code, in its entirety.

Other Federal and State Agencies that Regulate this Subject and the Process Coordinating the Rule with These Agencies: None. Regulations of the Federal Transit Administration, successor to the United States Urban Mass Transportation Administration, do not relate to the subject of the existing administrative code.

Process for Developing New Rule: Not applicable.

Interested parties can participate in the decision to adopt the new rule and formulation of the proposed rule before publication by contacting Paul Gamble, Public Transportation and Rail Division, P.O. Box 47387, Olympia, WA 98504-7387, phone (360) 705-7912, FAX (360) 705-6820. There are no meetings or other exchanges of information proposed that are associated with this administrative code.

January 13, 1998

Gerald E. Smith

Deputy Secretary for Operations

January 14, 1998
Deborah R. Bortner
Securities Administrator

WSR 98-03-041
PREPROPOSAL STATEMENT OF INQUIRY
DEPARTMENT OF
FINANCIAL INSTITUTIONS

[Filed January 15, 1998, 9:15 a.m.]

Subject of Possible Rule Making: Adoption of North American Securities Administrators Association (NASAA) statements of policy concerning securities registration and the repeal or amendment of any conflicting or overlapping regulations.

Statutes Authorizing the Agency to Adopt Rules on this Subject: RCW 21.20.450.

Reasons Why Rules on this Subject may be Needed and What They Might Accomplish: To foster greater uniformity, the Securities Division is considering adopting certain NASAA statements of policy in place of state-specific regulations on the same subjects. It is anticipated that such action would ease the burden of securities registration in this state by eliminating nonuniform regulations.

Other Federal and State Agencies that Regulate this Subject and the Process Coordinating the Rule with These Agencies: The federal Securities and Exchange Commission (SEC) and each of the fifty states and the District of Columbia also regulate this area. NASAA statements of policy are not adopted by the NASAA membership until the opportunity to comment is afforded to both the membership and the public. These policies were also subject to review and comment by an industry advisory panel during their development.

Process for Developing New Rule: See paragraph above.

Interested parties can participate in the decision to adopt the new rule and formulation of the proposed rule before publication by contacting William M. Beatty, Securities Division, Department of Financial Institutions, P.O. Box 9033, Olympia, WA 98507-9033, (360) 902-8760, FAX (360) 586-5068, bbeatty@dfi.wa.gov, Securities Division Web Site: <http://www.wa.gov/dfi/securities>.

WSR 98-03-047
PREPROPOSAL STATEMENT OF INQUIRY
GAMBLING COMMISSION
[Filed January 15, 1998, 1:59 p.m.]

Subject of Possible Rule Making: Punchboards and pull tabs.

Statutes Authorizing the Agency to Adopt Rules on this Subject: RCW 9.46.070 (2), (11).

Reasons Why Rules on this Subject may be Needed and What They Might Accomplish: Rule changes will make consistent the requirements imposed on manufacturers, distributors and operators involved in the pull tab/punchboard industry.

Other Federal and State Agencies that Regulate this Subject and the Process Coordinating the Rule with These Agencies: None.

Process for Developing New Rule: Negotiated rule making.

Interested parties can participate in the decision to adopt the new rule and formulation of the proposed rule before publication by contacting Ben Bishop, Deputy Director, P.O. Box 42400, Olympia, WA 98504-2400, (360) 438-7640; Carrie Tellefson, Director of Policy, Support and Enforcement, P.O. Box 42400, Olympia, WA 98504-2400, (360) 438-7640; or Soojin Kim, Rules and Policy Coordinator, P.O. Box 42400, Olympia, WA 98504-2400, (360) 438-7654 #310. Meeting at the Ramada Governor House, on February 12, 1998, 621 Capitol Way South, Olympia, WA 98501, (360) 352-7700; at the Holiday Inn Sea-Tac, on March 12 and 13, 17338 International Boulevard, SeaTac, WA 98188, (206) 248-1000; or at The Inn at Semi-ah-moo, 9565 Semiahmoo Parkway, Blaine, WA 98230-9326, (360) 371-2000.

Soojin Kim
Rules and Policy Coordinator

WSR 98-03-048
PREPROPOSAL STATEMENT OF INQUIRY
GAMBLING COMMISSION
[Filed January 15, 1998, 2:00 p.m.]

Subject of Possible Rule Making: Qualifications required of license applicant's spouse.

Statutes Authorizing the Agency to Adopt Rules on this Subject: RCW 9.46.070 (1), (2), (3).

Reasons Why Rules on this Subject may be Needed and What They Might Accomplish: Rule will allow exemption for good cause from the general requirement that the spouse of applicant meet the same licensing qualifications as the applicant.

Other Federal and State Agencies that Regulate this Subject and the Process Coordinating the Rule with These Agencies: None.

Process for Developing New Rule: Negotiated rule making.

Interested parties can participate in the decision to adopt the new rule and formulation of the proposed rule before publication by contacting Ben Bishop, Deputy Director, P.O. Box 42400, Olympia, WA 98504-2400, (360) 438-7640; Carrie Tellefson, Director of Policy, Support and Enforcement, P.O. Box 42400, Olympia, WA 98504-2400, (360) 438-7640; or Soojin Kim, Rules and Policy Coordinator, P.O. Box 42400, Olympia, WA 98504-2400, (360) 438-7654 #310. Meeting at the Ramada Governor House, on February 12, 1998, 621 Capitol Way South, Olympia, WA 98501, (360) 352-7700; at the Holiday Inn Sea-Tac, on March 12 and 13, 17338 International Boulevard, SeaTac, WA 98188, (206) 248-1000; or at The Inn at Semi-ah-moo, 9565 Semiahmoo Parkway, Blaine, WA 98230-9326, (360) 371-2000.

Soojin Kim
Rules and Policy Coordinator

WSR 98-03-072

PREPROPOSAL STATEMENT OF INQUIRY PUBLIC DISCLOSURE COMMISSION

[Filed January 21, 1998, 9:29 a.m.]

Subject of Possible Rule Making: Soliciting or accepting contributions during the legislative session freeze period.

Statutes Authorizing the Agency to Adopt Rules on this Subject: RCW 42.17.370(1).

Reasons Why Rules on this Subject may be Needed and What They Might Accomplish: During a legislative session and the thirty days before and after session as well as during any special session, RCW 42.17.710 prohibits a state official or a person employed by or acting on behalf of a state official from soliciting or accepting contributions to a public office fund, a candidate or candidate's authorized committee or to retire a campaign debt.

In September of 1997, the Washington State Supreme Court issued a decision interpreting this statute. On December 9, 1997, the commission adopted, on an emergency basis, an amendment to WAC 390-17-400 implementing the court's decision. That amendment will expire in April. The commission may determine that a permanent rule is warranted. The rule would clarify the court's finding that caucus political committees may solicit or accept contributions during a legislative freeze period so long as those contributions are not used to benefit incumbent officials or individuals who become candidates during the freeze period.

Other Federal and State Agencies that Regulate this Subject and the Process Coordinating the Rule with These Agencies: None.

Process for Developing New Rule: Interested persons are invited to submit written comments on the need for a rule by February 13, 1998. The commission is expected to discuss whether to move forward with revisions to WAC 390-17-400 at its meeting on February 24, 1998, and public comments will also be welcome at that time.

Interested parties can participate in the decision to adopt the new rule and formulation of the proposed rule before publication by contacting the Public Disclosure Commission Assistant Director Vickie Rippie at Washington Public Disclosure Commission, 711 Capitol Way, Room 403, P.O. Box 40908, Olympia, WA 98504-0908, phone (360) 753-

1111, FAX (360) 753-1112, e-mail pdc@wln.com. Obtain agenda for commission meeting to be held on February 24, 1998, for time and location of the discussion of this issue. Public hearing and possible permanent adoption will not occur before April 21, 1998.

January 21, 1998
Melissa Warheit
Executive Director

WSR 98-03-074

PREPROPOSAL STATEMENT OF INQUIRY LOTTERY COMMISSION

[Filed January 21, 1998, 9:50 a.m.]

Subject of Possible Rule Making: General lottery rules. Statutes Authorizing the Agency to Adopt Rules on this Subject: RCW 67.70.040(1).

Reasons Why Rules on this Subject may be Needed and What They Might Accomplish: The lottery is considering amending WAC 315-06-123 to increase the time period required for serving a certified copy of a judicial order on the director when an annuity winner is voluntarily assigning his/her prize. The lottery is also considering including additional specifications regarding the methods for payment of processing fees for these assignments.

Other Federal and State Agencies that Regulate this Subject and the Process Coordinating the Rule with These Agencies: None.

Process for Developing New Rule: Agency study.

Interested parties can participate in the decision to adopt the new rule and formulation of the proposed rule before publication by contacting Mary Jane Ferguson, Rules Coordinator, at (360) 753-1947, FAX (360) 586-6586, P.O. Box 43025, Olympia, WA 98504-3025, with any comments or questions regarding this statement of intent.

January 20, 1998
Mary Jane Ferguson
Rules Coordinator

WSR 98-03-077

PREPROPOSAL STATEMENT OF INQUIRY DEPARTMENT OF SOCIAL AND HEALTH SERVICES

(Aging and Adult Services Administration)

[Filed January 21, 1998, 11:05 a.m.]

Subject of Possible Rule Making: To add a new section to chapter 388-96 WAC, Nursing home accounting and reimbursement system, to establish a public process for making changes to the Medicaid nursing facility payment rate methodology.

Statutes Authorizing the Agency to Adopt Rules on this Subject: RCW 74.08.090, 74.46.800 and 42 USC 1396a (a)(13)(A).

Reasons Why Rules on this Subject may be Needed and What They Might Accomplish: To comply with Section 4711 of the federal 1997 Balanced Budget Act requiring states to adopt a public process for determining Medicaid payment rates to nursing facilities and other institutional providers; to preserve federal matching funds.

Other Federal and State Agencies that Regulate this Subject and the Process Coordinating the Rule with These Agencies: Federal Department of Health and Human Services, Health Care Financing Administration (HCFA). Public process authorized by the rule submitted to HCFA as a state plan amendment, subject to HCFA approval.

Process for Developing New Rule: New rule based upon federal requirements in Section 4711, 1997 Balanced Budget Act. The Department of Social and Health Services welcomes comments and suggestions in the development of the proposed rule. Materials indicated below are available to assist those wishing to make comments. If you would like these materials or to make comments, contact the staff person listed below. After considering all comments, a copy of the notice of rule making (including the proposed rule text to be published) and a summary of all comments and the Department of Social and Health Services responses to them will be sent to all those participating and to those on the AASA Office of Rates Management WAC mailing list.

Interested parties can participate in the decision to adopt the new rule and formulation of the proposed rule before publication. Call, write or FAX to receive copy of agency draft of rule and/or state plan amendment; or to make comments and suggestions to Robert Gray, Department of Social and Health Services, Aging and Adult Services Administration, P.O. Box 45600, Olympia, WA 98504-5600, phone (360) 493-2588, FAX (360) 493-9484.

January 20, 1998
Edith M. Rice, Chief
Office of Legal Affairs

WSR 98-03-078
PREPROPOSAL STATEMENT OF INQUIRY
DEPARTMENT OF
SOCIAL AND HEALTH SERVICES
(Economic Services Administration)
(Division of Child Support)
[Filed January 21, 1998, 11:06 a.m.]

Subject of Possible Rule Making: WAC 388-11-205 Assessing support.

Statutes Authorizing the Agency to Adopt Rules on this Subject: Chapter 26.19 RCW, RCW 26.23.050, 74.20A.310.

Reasons Why Rules on this Subject may be Needed and What They Might Accomplish: WAC 388-11-205 sets forth the methods for assessing support. WAC 388-11-205 (1)(b) provides the method for calculation of child support for a dependent child in foster care. A recent court of appeals decision finds that this subsection is in conflict with chapter 26.19 RCW. While revising the rule, the Division of Child Support will also review the rule under the criteria of Executive Order 97-02.

Process for Developing New Rule: Agency study; and those persons wishing to participate in developing the new rules are encouraged to contact Nancy Koptur at the Department of Social and Health Services Division of Child Support Headquarters prior to February 16, 1998, when the Division of Child Support intends to file the CR-102 and proposed rules.

Interested parties can participate in the decision to adopt the new rule and formulation of the proposed rule before

publication by contacting Nancy Koptur, Division of Child Support, P.O. Box 9162, Mailstop 45860, Olympia, WA 98507-9162, phone (360) 586-3077, FAX (360) 586-3274, TTY/TDD (360) 753-9122, e-mail nkoptur@dshs.wa.gov.

January 20, 1998
Edith M. Rice, Chief
Office of Legal Affairs
for Merry A. Kogut, Manager
Rules and Policies Assistance Unit

WSR 98-03-079
PREPROPOSAL STATEMENT OF INQUIRY
DEPARTMENT OF
SOCIAL AND HEALTH SERVICES
(Medical Assistance Administration)
[Filed January 21, 1998, 11:08 a.m.]

Subject of Possible Rule Making: WAC 388-523-2305. Statutes Authorizing the Agency to Adopt Rules on this Subject: RCW 74.04.050, 74.04.057, 74.08.090, and 74.09.530.

Reasons Why Rules on this Subject may be Needed and What They Might Accomplish: This proposed amendment is necessary to implement state and federal legislation concerning welfare reform as it impacts eligibility for medical assistance programs.

Process for Developing New Rule: The department invites the interested public to review and provide input into the adopted language of this proposed WAC amendment. The department will distribute draft material for an internal and external review process. All comments are taken into consideration before issuance of final rule.

Interested parties can participate in the decision to adopt the new rule and formulation of the proposed rule before publication by contacting Joanie Scotson, Program Manager, Medical Assistance Administration, Mailstop 45530, Olympia, WA 98504-5530, phone (360) 753-7462, FAX (360) 753-7315, TDD 1-800-848-5429, e-mail SCOTSJK@DSHS.WA.GOV.

January 21, 1998
Edith M. Rice, Chief
Office of Legal Affairs

WSR 98-03-088
PREPROPOSAL STATEMENT OF INQUIRY
DEPARTMENT OF AGRICULTURE
[Filed January 21, 1998, 11:44 a.m.]

Subject of Possible Rule Making: Adjust the grain inspection fee schedule relative to overtime, hourly rates, and the elimination of weekly averaging. Also, clarify the wording and format of the fee schedule document.

Statutes Authorizing the Agency to Adopt Rules on this Subject: Chapter 22.09 RCW.

Reasons Why Rules on this Subject may be Needed and What They Might Accomplish: The current fee schedule is not representative of grain inspection operating costs, as required by statute. Amendments to the fee schedule will closer align the fee document with statutory requirements and will be easier to read and understand.

Other Federal and State Agencies that Regulate this Subject and the Process Coordinating the Rule with These Agencies: The federal grain inspection service must approve fee schedule changes.

Process for Developing New Rule: [No information supplied by agency.]

Interested parties can participate in the decision to adopt the new rule and formulation of the proposed rule before publication by contacting Randall R. Deike, Grain Inspection Program Manager, Washington State Department of Agriculture, Commodity Inspection Division, 1111 Washington Street S.E., P.O. Box 42560, Olympia, WA 98504-2560, phone (360) 902-1921, FAX (360) 902-2085, TDD (360) 902-1996.

January 22 [21], 1998
Dannie McQueen
Administrative Regulations Manager



WSR 98-03-004**PROPOSED RULES****INSURANCE COMMISSIONER'S OFFICE**

[Filed January 8, 1998, 10:00 a.m.]

Continuance of WSR 98-02-012.

Preproposal statement of inquiry was filed as WSR 97-16-048.

Title of Rule: Managed health care.

Purpose: Continuation of adoption date to January 22, 1998.

Other Identifying Information: Insurance Commissioner Matter No. R 97-3.

Date of Intended Adoption: January 22, 1998.

January 8, 1998

Greg J. Scully

Chief Deputy Commissioner

WSR 98-03-011**PROPOSED RULES****UTILITIES AND TRANSPORTATION COMMISSION**

[Filed January 9, 1998, 11:21 a.m.]

Original Notice.

Preproposal statement of inquiry was filed as WSR 97-09-023.

Title of Rule: Defining minimum local calling areas. Docket No. UT-970545.

Purpose: To define when service is sufficient with respect to the scope of subscribers' available local calling area.

Statutory Authority for Adoption: RCW 80.01.040, 80.04.160, and 80.36.140.

Statute Being Implemented: RCW 80.36.080.

Summary: The proposal would require that each local exchange telephone company shall provide as part of its basic flat rate service a local calling area adequate to allow customers to reach community services, including medical facilities, government offices, elementary and secondary schools and a primary commercial center.

Reasons Supporting Proposal: Telephone subscribers in most existing exchanges can reach a diversity of basic services without incurring high toll charges, either because their exchanges are extensive, or because the exchange has been combined in the past into a larger local calling area. However, in some exchanges, people still must pay toll charges for most of their calls to reach basic services or other integral parts of their local community. To ensure that service is sufficient for all subscribers across the state, it is necessary to define a minimum scope of local calling.

Name of Agency Personnel Responsible for Drafting, Implementation and Enforcement: Paul Curl, Acting Secretary, 1300 South Evergreen Park Drive S.W., Olympia, WA 98504, (360) 753-6451.

Name of Proponent: Washington Utilities and Transportation Commission, governmental.

Rule is not necessitated by federal law, federal or state court decision.

Explanation of Rule, its Purpose, and Anticipated Effects: The rule would require each local exchange telephone company to provide as part of its basic flat rate

service a local calling area adequate to allow customers to reach community services, including medical facilities, government offices, elementary and secondary schools and a primary commercial center.

Telephone subscribers in most exchanges can reach a diversity of basic services without incurring high toll charges, either because their exchanges are extensive, or because the exchange has been combined in the past into a larger local calling area. However, in some exchanges, people still must pay toll charges for most of their calls to reach basic services or even other parts of their local community. The purpose of the rule is to help ensure that local telephone service is sufficient for all subscribers across the state.

The effect of the rule would be to allow subscribers in exchanges that currently have little or no local access to some basic services for their basic telephone rate to obtain such access by incorporating their exchanges into a larger local calling area with other, nearby exchanges.

Proposal Changes the Following Existing Rules: Rule would replace existing rules governing the expansion of local calling areas.

No small business economic impact statement has been prepared under chapter 19.85 RCW. As written, the rule establishes a flexible standard for expansion of local calling areas based on the presence of community services and a primary commercial area. This suggests the likelihood of very limited impact. The commission will undertake an examination of more significant impacts that could be associated with a more explicit standard, and file an impact statement if such a standard is ultimately added.

RCW 34.05.328 does not apply to this rule adoption. The commission is not an agency to which RCW 34.05.328 applies, and this rule change is not a significant legislative rule as defined therein.

Hearing Location: Commission Hearing Room, Second Floor, Chandler Plaza, 1300 South Evergreen Park Drive S.W., Olympia, WA 98504, on March 25, 1998, at 9:00 a.m.

Assistance for Persons with Disabilities: Contact Pat Valentine by March 19, 1998, TDD (360) 586-8203, or (360) 664-1133.

Submit Written Comments to: Paul Curl, Acting Secretary, P.O. Box 47250, Olympia, WA 98504-7250, FAX (360) 586-1150, by February 11, 1998.

Date of Intended Adoption: March 25, 1998.

January 8, 1998

Terrence Stapleton

for Paul Curl

Acting Secretary

NEW SECTION**WAC 480-120-045 Basic service to include a minimum local calling area.** (1) Each local exchange company shall provide as an element of basic service, a local calling area adequate to allow customers to reach community services, including medical facilities, local government offices, elementary and secondary schools and a primary commercial center.

(2) No local calling area shall exhibit any discontinuities; i.e., the local calling area for an exchange shall contain all intervening exchange areas.

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PROPOSED

(3) "Basic service" is the minimum service a carrier may offer.

(4) Any local exchange company providing service to an exchange for which the local calling area is not adequate to meet the basic service standard as required in subsection (1) of this section shall, within ten months from the date this rule becomes effective, file price lists or tariff revisions necessary to comply with the standard. Such filings may provide for a reasonable delay in implementation if additional facilities are required.

(5) Nothing in this rule is intended to prohibit companies from offering service priced on an optional basis to a larger geographical area.

Purpose: The primary purpose of this rule making is to generate additional farebox revenue for the Washington state ferries to offset operational cost impacts of inflation and additional services projected over the next several years.

Statutory Authority for Adoption: RCW 47.56.030 and 47.60.326.

Statute Being Implemented: RCW 47.60.326.

Summary: The adoption of a revised fare schedule for the Washington state ferries amending WAC 468-300-010, 468-300-020, 468-300-220, and 468-300-040.

Name of Agency Personnel Responsible for Drafting, Implementation and Enforcement: Raymond G. Deardorf, 801 Alaskan Way, Seattle, 98504 [98104], (206) 515-3491.

Name of Proponent: Washington State Department of Transportation, governmental.

Rule is not necessitated by federal law, federal or state court decision.

Explanation of Rule, its Purpose, and Anticipated Effects: The primary purpose of this rule making is to generate additional farebox revenue for Washington state ferries to offset operational cost impacts of inflation and additional services projected over the next several years. No major effects are anticipated.

Proposal does not change existing rules.

No small business economic impact statement has been prepared under chapter 19.85 RCW. The department has considered this rule and determined that it does not affect more than ten percent of one industry or twenty percent of all industry.

RCW 34.05.328 does not apply to this rule adoption.

Hearing Location: Transportation Building, Board Room 1D2, Olympia, Washington 98504, on March 25, 1998, at 9:00 a.m.

Assistance for Persons with Disabilities: Contact Bobbie Garver by March 24, 1998, TDD (360) 705-6980, or (360) 705-6602.

Submit Written Comments to: Raymond G. Deardorf, Washington State Ferries, 801 Alaskan Way, Seattle, WA 98104, FAX (206) 515-3499, by March 24, 1998.

Date of Intended Adoption: March 25, 1998.

January 16, 1998

Chris R. Rose

Administrator

Transportation Commission

WSR 98-03-034
WITHDRAWAL OF PROPOSED RULES
GAMBLING COMMISSION
 (By the Code Reviser's Office)
 [Filed January 14, 1998, 3:10 p.m.]

WAC 230-30-106, proposed by the Gambling Commission in WSR 97-14-014, appearing in issue 97-14 of the State Register, which was distributed on July 16, 1997, is withdrawn by the code reviser's office under RCW 34.05.335(3), since the proposal was not adopted within the one hundred eighty day period allowed by the statute.

Kerry S. Radcliff, Editor
 Washington State Register

WSR 98-03-050
PROPOSED RULES
DEPARTMENT OF TRANSPORTATION
 [Filed January 16, 1998, 8:58 a.m.]

Original Notice.

Preproposal statement of inquiry was filed as WSR 97-24-063.

Title of Rule: WAC 468-300-010, 468-300-020, 468-300-220, and 468-300-040.

AMENDATORY SECTION (Amending Orders 79 and 80, filed 2/16/96, effective 3/19/96)

WAC 468-300-010 Ferry passenger tolls.

Effective 03:00 a.m. (~~October 9, 1994~~) May 10, 1998

ROUTES	Full Fare	Half Fare	((Frequent User Ticket Book		
			20 Rides [†]	Monthly Pass [§]	Bicycle Surcharge ^² @ [¶]
<i>Via Passenger Only Ferry</i>					
*Seattle-Vashon					
*Seattle-Southworth	3.50	1.75	21.00	44.10	N/C
*Seattle-Bremerton					

PROPOSED

<i>Via Auto Ferry</i>					
*Fauntleroy-Southworth					
*Seattle-Bremerton					
*Seattle-Winslow	3.50	1.75	21.00	44.10	0.50
*Edmonds-Kingston					
<hr/>					
Port Townsend-Keystone	1.75	0.90	21.00	N/A	0.25
<hr/>					
<i>Via Passenger-Only Ferry</i>					
*Fauntleroy-Vashon					
*Southworth-Vashon	2.30	1.15	13.70	29.00	0.50
*Pt. Defiance-Tahlequah					
*Mukilteo-Clinton					
<hr/>					
*Anacortes to Lopez, Shaw, Orcas or Friday Harbor	4.95	2.50	29.60	N/A	2.75
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Between Lopez, Shaw, Orcas and Friday Harbor ⁴	N/C	N/C	N/C	N/A	N/C
<hr/>					
<i>International Travel</i>					
Anacortes to Sidney and Sidney to all destinations	6.90	3.45	N/A	N/A	4.50
<hr/>					
From Lopez, Shaw, Orcas and Friday Harbor to Sidney ⁵	1.75	1.00	N/A	N/A	1.75
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Lopez, Shaw, Orcas and Friday Harbor to Sidney (round trip) ⁵	8.65	4.45	N/A	N/A	6.25

ROUTES	Full Fare	Half Fare	Frequent User Ticket Book 20 Rides ¹	Monthly Pass ²	Quarterly Pass ³	Annual Pass ³	Bicycle Surcharge ^{2,6}
<i>Via Passenger-Only Ferry</i>							
*Seattle-Vashon							
*Seattle-Bremerton	3.60	1.80	23.50	49.40	148.20	592.80	N/C
<hr/>							
<i>Via Auto Ferry</i>							
*Fauntleroy-Southworth							
*Seattle-Bremerton							
*Seattle-Bainbridge Island	3.60	1.80	23.50	49.40	148.20	592.80	0.60
*Edmonds-Kingston							
<hr/>							
Port Townsend-Keystone	1.80	0.90	23.50	N/A	N/A	N/A	0.30
<hr/>							
*Fauntleroy-Vashon							
*Southworth-Vashon	2.40	1.20	15.75	33.10	99.30	397.20	0.60
*Pt. Defiance-Tahlequah							
*Mukilteo-Clinton							
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*Anacortes to Lopez, Shaw, Orcas or Friday Harbor	5.10	2.60	33.25	N/A	N/A	N/A	2.90
<hr/>							
Between Lopez, Shaw, Orcas and Friday Harbor ⁴	N/C	N/C	N/C	N/A	N/A	N/A	N/C
<hr/>							
<i>International Travel</i>							
Anacortes to Sidney and Sidney to all destinations	8.90	4.50	N/A	N/A	N/A	N/A	4.50
<hr/>							
From Lopez, Shaw, Orcas and Friday Harbor to Sidney ⁵	4.00	2.00	N/A	N/A	N/A	N/A	1.75
<hr/>							
Lopez, Shaw, Orcas and Friday Harbor to Sidney (round trip) ⁵	12.90	6.50	N/A	N/A	N/A	N/A	6.25

@ These fares rounded to the ((nearest)) next multiple of \$.25. All other fares rounded to the next multiple of \$0.10.

* These routes operate as a one-point toll collection system.

¹FREQUENT USER TICKETS - Shall be valid only for 90-days from date of purchase after which time the tickets shall not be accepted for passage.

PROPOSED

- ²BICYCLE SURCHARGE - Is an addition to the appropriate passenger fare.
- ³ROUND TRIP - Round trip tickets for international travel available for trips beginning or ending on one of the Islands served.
- ⁴INTER-ISLAND FARES - Passenger fares included in Anacortes tolls.
- ⁵~~((MONTHLY PASS))~~ EMPLOYER PASSES - A monthly passenger pass is available for all routes except: Anacortes/San Juan Island/Sidney and Port Townsend/Keystone, as a pilot program. The pass is available through some local employers. It is a flash pass valid for the month printed on the pass and will be presented to Washington state ferries staff whenever a passenger fare is collected. This pass is based on 21 days of passenger travel with a ~~((40%))~~ 35% discount. The quarterly pass is based on 63 days of travel with a 35% discount and the annual pass is based on 252 days with a 35% discount.
- ⁶BICYCLE PASS - A bicycle pass is available on all routes except: Anacortes/San Juan Island/Sidney as a pilot program for a \$20.00 annual fee subject to meeting WSF specified conditions. The pass is valid for one year. A cyclist with a valid pass shall have the bicycle surcharge waived.
- HALF FARE - Children under five years of age will be carried free when accompanied by parent or guardian. Children five through eleven years of age will be charged half-fare. Children twelve years of age will be charged full-fare.
- SENIOR CITIZENS - Passengers age 65 and over, with proper identification establishing proof of age, may travel at half-fare passenger tolls on any route where passenger fares are collected.
- PERSONS OF DISABILITY - Any individual who, by reason of illness, injury, congenital malfunction, or other incapacity or disability is unable without special facilities or special planning or design to utilize ferry system services, upon presentation of a WSF Disability Travel Permit, Regional Reduced Fare Permit, or other identification which establishes a disability may travel at half-fare passenger tolls on any route. In addition, those persons with disabilities who require attendant care while traveling on the ferries, and are so certified by their physician, may obtain an endorsement on their WSF Disability Travel Permit and such endorsement shall allow the attendant to travel free as a passenger.
- BUS PASSENGERS - Passengers traveling on public transit buses pay the applicable fare. Passengers traveling in private or commercial buses will be charged the half-fare rate.
- MEDICARE CARD HOLDERS - Any person holding a Medicare card duly issued to that person pursuant to Title II or Title XVIII of the Social Security Act may travel at half-fare passenger tolls on any route upon presentation of a WSF Disability Travel Permit or a Regional Reduced Fare Permit at time of travel.
- FERRY/TRANSIT PASS - A combination ferry-transit monthly pass may be available for a particular route when determined by Washington state ferries and a local public transit agency to be a viable fare instrument. The WSF portion of the fare is based on 21 days of passenger travel at a 50% discount.
- PROMOTIONAL TOLLS - A promotional rate may be established at the discretion of the secretary of transportation for a specific discount (not to exceed 50 percent of full fare) and effective only at designated times on designated routes (not to exceed 100 days per year on any one route).
Special passenger fare rate(s) may be established for a pilot program in conjunction with the Central Puget Sound Regional Fare Integration project on ferry route(s) serving King, Pierce, Snohomish and Kitsap counties. The rate(s) may be established at the discretion of the secretary of transportation for a specific discount not to exceed fifty percent of full fare.
- SCHOOL GROUPS - Passengers traveling in authorized school groups for institution-sponsored activities will be charged a flat rate of \$1 per walk-on group or per vehicle of students and/or advisors and staff. Walk-on groups and private vehicles require a letter of authorization. Vehicles and drivers will be charged the fare applicable to vehicle size. The special school rate is \$2 on routes where one-point toll systems are in effect.

AMENDATORY SECTION (Amending Order 82, filed 9/12/96, effective 10/13/96)

WAC 468-300-020 Vehicle under 20', motorcycle, and stowage ferry tolls.

Effective 03:00 a.m. (~~((October 13, 1996))~~) May 10, 1998

ROUTES	((Motoreyele w/Sr						
	Vehicle Under 20'		Vehicle Under 20' Over Height		Citizen or Disabled Driver		Frequent User Ticket book 20 Rides ²
	Incl. Driver One Way	Disabled Driver ⁴	20' Over Height Surcharge ¹	Frequent User Ticket book 20 Rides ²	Motoreyele/Stowage ⁵ Incl. Driver Stowage ⁵ One Way	Stowage ⁵ One Way	
Fauntleroy-Southworth Seattle-Bremerton Seattle-Winslow Port Townsend-Keystone Edmonds-Kingston	5.90	5.05	5.90	94.15	2.60	1.75	41.55
*Fauntleroy-Vashon *Southworth-Vashon *Pt. Defiance-Tahlequah	7.95	6.85	7.95	63.60	3.40	2.25	27.15
Mukilteo-Clinton	4.00	3.40	4.00	63.60	1.70	1.15	27.15
	10 Rides						
*Anacortes to Lopez *Shaw, Orcas *Friday Harbor	12.30	9.85	12.30	49.20	6.40	3.95	51.30
	14.70	12.20	14.70	58.75	6.90	4.45	55.15
	16.80	14.35	16.80	67.20	7.30	4.85	58.55

Between Lopez, Shaw, Orcas and Friday Harbor²	7.00	7.00	7.00	27.50	2.00	2.00	N/A
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International Travel

Anacortes to Sidney and Sidney to all destinations	29.70	26.30	29.70	N/A	11.45	8.00	N/A
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From Lopez, Shaw, Orcas and Friday Harbor to Sidney[@]	15.00	14.25	15.00	N/A	4.50	3.75	N/A
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Lopez, Shaw, Orcas and Friday Harbor to Sidney (round trip)[*]	44.70	40.55	44.70	N/A	15.95	11.75	N/A
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ROUTES	Vehicle Under 20' Incl. Driver One Way	Vehicle Under 20' w/Sr Citizen or Disabled Driver ⁴	Vehicle Under 20' Over Height Charge ¹	Frequent User Ticket book 20 Rides ²	Motorcycle ⁵ Incl. Driver Stowage ³ One Way [@]	Motorcycle w/Sr Citizen or Disabled Driver Stowage ³ One Way [@]	Motorcycle Frequent User Ticket book 20 Rides ² @
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Fauntleroy-Southworth Seattle-Bremerton Seattle-Bainbridge Island Port Townsend-Keystone Edmonds-Kingston	<u>6.25</u>	<u>5.50</u>	<u>6.25</u>	<u>100.00</u>	<u>2.70</u>	<u>1.80</u>	<u>43.20</u>
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*Fauntleroy-Vashon *Southworth-Vashon *Pt. Defiance-Tahlequah	<u>8.50</u>	<u>7.50</u>	<u>8.50</u>	<u>68.00</u>	<u>3.80</u>	<u>2.60</u>	<u>30.40</u>
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Mukilteo-Clinton	<u>4.25</u>	<u>3.75</u>	<u>4.25</u>	<u>68.00</u>	<u>1.90</u>	<u>1.30</u>	<u>30.40</u>
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10 Rides - 5 Round Trips

*Anacortes to Lopez	<u>12.75</u>	<u>10.25</u>	<u>12.75</u>	<u>51.00</u>	<u>6.70</u>	<u>4.20</u>	<u>53.60</u>
*Shaw, Orcas	<u>15.25</u>	<u>12.75</u>	<u>15.25</u>	<u>61.00</u>	<u>7.20</u>	<u>4.70</u>	<u>57.60</u>
*Friday Harbor	<u>17.25</u>	<u>14.75</u>	<u>17.25</u>	<u>69.00</u>	<u>7.60</u>	<u>5.10</u>	<u>60.80</u>

Between Lopez, Shaw, Orcas and Friday Harbor³	7.25	7.25	7.25	29.00	2.25	2.25	N/A
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International Travel

Anacortes to Sidney and Sidney to all destinations	24.00	19.75	24.00	N/A	12.00	9.80	N/A
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Travelers with advanced reservations (\$15 fee) Anacortes to Sidney and Sidney to all destinations⁷	9.00	4.75	24.00	N/A	N/A	N/A	N/A
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From Lopez, Shaw, Orcas and Friday Harbor to Sidney	8.75	7.00	8.75	N/A	5.00	5.25	N/A
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Lopez, Shaw, Orcas and Friday Harbor to Sidney (round trip)⁶	32.75	26.75	32.75	N/A	17.00	15.05	N/A
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[@] These fares rounded to the ((nearest)) next multiple of \$0.10. All other fares rounded to the next multiple of \$.25.

* These routes operate as a one-point toll collection system.

PROPOSED

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¹SIZE - All vehicles up to 20' in length and under 7'6" shall pay the vehicle under 20' toll. Vehicles up to 20' but over 7'6" in height shall pay ~~((a height surcharge))~~ an overheight charge of 100% of the vehicle full fare. Upon presentation by either the driver or passenger of a WSF Disability Travel Permit, Regional Reduced Fare Permit, or other identification which establishes disability, the height ~~((surcharge))~~ charge will be waived for vehicles equipped with wheel chair lift or other mechanism designed to accommodate the person with disability.

²FREQUENT USER TICKETS - Shall be valid only for 90 days from date of purchase after which time the ticket shall not be accepted for passage.

³INTER-ISLAND FARES - Tolls collected westbound only. Vehicles traveling between islands may request a single transfer ticket good for one transfer at an intermediate island. The transfer may only be obtained when purchasing the appropriate vehicle fare for inter-island travel (westbound at Lopez, Shaw, or Orcas) and is free of charge. Transfers shall be valid for 24 hours from time of purchase.

⁴SENIOR CITIZEN, DISABLED DRIVER OR DISABLED ATTENDANT DRIVER - Half fare discount applies to driver portion of the vehicle-driver fare and only when the driver is eligible. Those persons with disabilities who require attendant care while traveling on the ferries, and are so certified by their physician, may obtain an endorsement on their ~~((WSR))~~ WSF Disability Travel Permit and such endorsement shall allow the attendant, when driving, to have the driver portion of the vehicle fare waived.

⁵MOTORCYCLES - The motorcycle including driver fare includes motorcycles pulling trailers and motorcycles with side cars.

⁶ROUND TRIP - Round trip tickets for international travel available for trips beginning or ending on one of the islands served.

⁷RESERVATION FARES - These fares apply only to travelers that have made advanced reservations and paid the \$15 nonrefundable reservation fee.

VANPOOLS - A commuter vanpool which carries five or more persons on a regular and expense-sharing basis for the purpose of travel to and from work or school and which is certified as such by a local organization approved by the Washington state ferry system, may purchase for a \$10 fee, a permit valid for one year valid only during the hours shown on the permit. These hours are selectable by the purchaser but shall designate two periods of use each day not to exceed two hours per period. The \$10.00 fee shall include the driver. Remaining passengers shall pay the applicable passenger fare. Except that the minimum total paid for all passengers in the van shall not be less than four times the applicable passenger fare.

STOWAGE - Stowage carry-on items including kayaks, canoes and other items of comparable size which are typically stowed on the vehicle deck of the vessel shall be charged at the motorcycle rate. This rate includes the walk-on passenger carrying on the item to be stowed.

PEAK SEASON SURCHARGE - A ~~((20%))~~ 25% surcharge shall be applied ~~((effective))~~ to vehicles from the second Sunday in May ~~((through))~~ to the second Sunday in October ~~((to all vehicles))~~ except those using frequent user tickets. A 65% surcharge shall be applied on fares for international travel to reflect the reduced base fares on these routes.

PENALTY CHARGES - Owner of vehicle without driver will be assessed a \$100.00 penalty charge.

PROMOTIONAL TOLLS - A promotional rate may be established at the discretion of the secretary of transportation for a specified discount (not to exceed 50 percent of full fare) and effective only at designated times on designated routes (not to exceed 100 days per year on any one route).

AMENDATORY SECTION (Amending Order 82, filed 9/12/96, effective 10/13/96)

WAC 468-300-040 Oversize vehicle ferry tolls.

Effective 03:00 a.m. ~~((October 13, 1996))~~ May 10, 1998

~~((Oversize Vehicle Ferry Tolls¹~~
Overall Unit Length Including Driver

ROUTES	Overall Unit Length Including Driver							Cost Per Ft.
	20' To Under 30' Incl. Driver	20' To Under 30' High	30' To Under 40'	40' To Under 50'	50' To Under 60'	60' To Under 70'	70' To and Include 80'	
Fauntleroy-Southworth								
Seattle-Bremerton								
Seattle-Winslow	8.85	17.70	23.60	29.50	35.40	41.30	47.20	0.60
Port Townsend-Keystone								
Edmonds-Kingston								
*Fauntleroy-Vashon								
*Southworth-Vashon	12.00	24.00	32.00	40.00	48.00	56.00	64.00	0.80
*Pt. Defiance-Tahlequah								
Mukilteo-Clinton	6.00	12.00	16.00	20.00	24.00	28.00	32.00	0.40
*Anacortes to Lopez²								
*Shaw, Orcas	22.05	44.10	58.80	73.50	88.20	102.90	117.60	1.50
*Friday Harbor								

~~Between Lopez, Shaw, Orcas and Friday Harbor²@~~

	10.50							
Oct. 13, 1996	17.50	18.25	19.25	42.00	49.00	56.00	N/A	
May 11, 1997	19.25	21.00	23.50	42.00	49.00	56.00	N/A	
Oct. 12, 1997	21.00	24.25	28.75	42.00	49.00	56.00	N/A	
May 10, 1998	21.00	28.00	35.00	42.00	49.00	56.00	N/A	

International Travel

Anacortes to Sidney and Sidney to all destinations	44.55	89.10	118.80	148.50	178.20	207.90	237.60	2.40
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~~From Lopez, Shaw, Orcas and Friday Harbor to Sidney@~~

	22.50	45.00	60.00	75.00	90.00	105.00	120.00	1.00
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~~Lopez, Shaw, Orcas and Friday Harbor to Sidney (round trip)⁴~~

	67.05	134.10	178.80	223.50	268.20	312.90	357.60	3.40
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Oversize Vehicle Ferry Tolls¹
Overall Unit Length - Including Driver

ROUTES	20'	20'	30'	40'	50'	60'	70'	70'	Cost
	To Under 30'	To Under 30'							
	7'6" High	7'6" High	To Under 40'	To Under 50'	To Under 60'	To Under 70'	To and Include 80'	Per Ft. Over 80' @	

Fauntleroy-Southworth
Seattle-Bremerton
Seattle-Bainbridge Island
Port Townsend-Keystone
Edmonds-Kingston

	<u>9.50</u>	<u>18.75</u>	<u>25.00</u>	<u>31.25</u>	<u>37.50</u>	<u>43.75</u>	<u>50.00</u>	<u>0.65</u>
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*Fauntleroy-Vashon
*Southworth-Vashon
*Pt. Defiance-Tahlequah

	<u>13.00</u>	<u>25.50</u>	<u>34.00</u>	<u>42.50</u>	<u>51.00</u>	<u>59.50</u>	<u>68.00</u>	<u>0.90</u>
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Mukilteo-Clinton

	<u>6.50</u>	<u>12.75</u>	<u>17.00</u>	<u>21.25</u>	<u>25.50</u>	<u>29.75</u>	<u>34.00</u>	<u>0.45</u>
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*Anacortes to Lopez²
*Shaw, Orcas
*Friday Harbor

	<u>23.00</u>	<u>45.75</u>	<u>61.00</u>	<u>76.25</u>	<u>91.50</u>	<u>106.75</u>	<u>122.00</u>	<u>1.50</u>
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Between Lopez, Shaw, Orcas and Friday Harbor³
May 10, 1998

	<u>11.00</u>	<u>21.75</u>	<u>29.00</u>	<u>36.25</u>	<u>43.50</u>	<u>50.75</u>	<u>58.00</u>	<u>N/A</u>
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International Travel

<u>Anacortes to Sidney and Sidney to all destinations</u>	<u>36.00</u>	<u>72.00</u>	<u>96.00</u>	<u>120.00</u>	<u>144.00</u>	<u>168.00</u>	<u>192.00</u>	<u>2.40</u>
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Travelers with advanced reservations (\$15 fee)
Anacortes to Sidney and Sidney to all destinations⁵

	<u>21.00</u>	<u>57.00</u>	<u>81.00</u>	<u>105.00</u>	<u>129.00</u>	<u>153.00</u>	<u>177.00</u>	<u>2.40</u>
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From Lopez, Shaw, Orcas and Friday Harbor to Sidney

	<u>13.00</u>	<u>26.25</u>	<u>35.00</u>	<u>43.75</u>	<u>52.50</u>	<u>61.25</u>	<u>70.00</u>	<u>0.90</u>
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Lopez, Shaw, Orcas and Friday Harbor to Sidney (round trip)⁴

	<u>49.25</u>	<u>98.25</u>	<u>131.00</u>	<u>163.75</u>	<u>196.50</u>	<u>229.25</u>	<u>262.00</u>	<u>3.30</u>
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PROPOSED

@ These fares rounded to the ((nearest)) next multiple of \$0.05. All other fares rounded to the next multiple of \$.25.

* These routes operate as a one-point toll collection system.

¹**OVERSIZE VEHICLES** - Includes all vehicles 20 feet in length and longer regardless of type: Commercial trucks, recreational vehicles, vehicles under 20' pulling trailers, etc. Length shall include vehicle and load to its furthest extension. Overheight charge is included in oversize vehicle toll(~~(except for 20 to 30 foot category under 7'6" in height)~~). Vehicles (~~(which are)~~) 11 feet in width or wider pay double the fare applicable to their length. Private and commercial passenger buses or other passenger vehicles pay the applicable oversize vehicle tolls. Public transit buses and drivers shall travel free upon display of an annual permit which may be purchased for \$10.

²**STOPOVERS** - Tolls collected westbound only. Oversize vehicles traveling westbound from Anacortes may purchase a single intermediate stopover ticket for \$2.50 when first purchasing the appropriate vehicle fare. The stopover is valid for a 24-hour period.

³**INTER-ISLAND** - Tolls collected westbound only. Vehicles traveling between islands may request a single transfer ticket good for one transfer at an intermediate island. The transfer may only be obtained when purchasing the appropriate vehicle fare for interisland travel (westbound at Lopez, Shaw, or Orcas) and is free of charge. Transfers shall be valid for 24 hours from time of purchase.

⁴**ROUND TRIP** - Round trip tickets for international travel available for trips beginning or ending on one of the islands served.

⁵**RESERVATION FARES** - These fares apply only to travelers that have made advanced reservations and paid the \$15 nonrefundable reservation fee.

PEAK SEASON SURCHARGE - ~~((A 20% surcharge shall be applied effective the second Sunday in May through the second Sunday in October to all vehicles except those using frequent user tickets.))~~ A peak season surcharge of 25% shall apply to all oversize vehicles, except for international travel. The senior citizen discount shall apply to the driver of an oversize vehicle. A 65% surcharge shall be applied on fares for international travel to reflect the reduced base fares on these routes.

SENIOR CITIZEN DISCOUNTS - Discounts of 50% for the driver of the above vehicles shall apply. Senior citizen discount is determined by subtracting full-fare passenger rate and adding half-fare passenger rate.

PENALTY CHARGES - Owner of vehicle without driver will be assessed a \$100.00 penalty charge.

DISCOUNT FROM REGULAR TOLL

Oversize vehicles making 12 or more, one-way crossings per week (Sunday thru Saturday) will qualify for a 20% discount from the regular ferry tolls.

EMERGENCY TRIPS DURING NONSERVICE HOURS - While at locations where crew is on duty charge shall be equal to the cost of fuel consumed to make emergency trip. Such trips shall only be offered as a result of official requests from an emergency services agency and only in the case of no reasonable alternative.

BULK NEWSPAPERS - Per 100 lbs. \$2.20

(Shipments exceeding 60,000 lbs. in any month shall be assessed \$1.10 per 100 lbs.)

Daily newspapers, in bundles, and medical supplies, to be received and delivered without receipt and subject to owner's risk, will be transported between ferry terminals on regular scheduled sailings.

EXPRESS SHIPMENTS - A flat handling charge of \$25.00 per parcel is charged.

(Shipments exceeding 100 lbs. assessed \$8.30 for each 25 lbs. or fraction thereof.)

Express shipments will be handled on scheduled sailings when no other means of shipment is available to shipper. Shipments must be of a size and weight that can easily be handled by carrier's employees. Carrier reserves the right to refuse shipment of any item. Carrier assumes no liability for loss or damage to any shipment. Minimum rate for any shipment shall be the rate for 100 pounds.

San Juan inter-island express shipments will be handled at \$5.00 per parcel.

MEDICAL SUPPLIES - A flat handling charge of \$5.00 per shipment is charged.

DISCLAIMER - Under no circumstances does Washington state ferries warrant the availability of ferry service at a given date or time; nor does it warrant the availability of space on board a vessel on a given sailing.

AMENDATORY SECTION (Amending Order 83, filed 7/22/97, effective 8/22/97)

WAC 468-300-220 Calculation of charter rates for vessels owned by the Washington state ferry system. Pursuant to chapter 323, Laws of 1997, vessels owned by the Washington state ferry system may be made available for charter subject to operational availability. Execution of a charter agreement as set forth in the statute must precede a commitment to charter. The following actual hourly vessel operating costs have been calculated for establishing the rates to be charged for vessel charters from July 27, ~~((1997))~~ 1998, through June 30, ~~((1998))~~ 1999:

Vessel Class	Deck Crew On Overtime	Deck Crew Not On Overtime
Jumbo	((987.69)) \$966.58	808.53)) 788.87
Super	((949.27)) 931.10	776.27)) 759.61
Evergreen	((725.99)) 716.13	582.84)) 574.06
Issaquah	((723.97)) 712.18	594.50)) 583.83
Steel	((602.60)) 595.11	489.58)) 482.75
Rhododendron	((575.60)) 571.11	462.58)) 458.75
Hiyu	((430.27)) 428.15	356.31)) 354.43
Passenger Only	((420.05)) 416.83	359.75)) 356.83

The rate for an individual charter will be calculated by:

- (1) Multiplying the actual operating cost set forth above for the vessel that is chartered by the number of hours, or fraction thereof, for which the vessel is chartered;
- (2) Adding labor costs, mileage and per diem expenses to determine the total actual costs if the particular charter requires a crew callout; and
- (3) Increasing the total actual costs calculated pursuant to subsections (1) and (2) of this section by fifty percent, and rounding to the nearest fifty dollars.

In the case of charters for the transport of hazardous materials, the transporter is required to pay for all legs necessary to complete the charter, even if the vessel is simultaneously engaged in an operational voyage on behalf of the Washington state ferry system.

PROPOSED

WSR 98-03-054
WITHDRAWAL OF PROPOSED RULES
DEPARTMENT OF LICENSING
 [Filed January 16, 1998, 1:57 p.m.]

January 19, 1998

Gerald E. Smith

Deputy Secretary for Operations

The Department of Licensing hereby withdraws the proposed rule: WAC 308-312-090 which was filed with your office on October 22, 1997, as a part of WSR 97-21-150 (with subsequent supplemental filing on December 3, 1997, as part of WSR 97-24-104).

Nell Benzschawel, Administrator
 Master License Service
 Business and Professions Division

Chapter 468-400 WAC
BICYCLE RACING

NEW SECTION

WAC 468-400-010 Policy. It is the policy of the Washington state department of transportation (department) to permit bicycle racing on state highways in accordance with the conditions and regulations set forth in this code and the latest edition of the "*Washington State Bicycle Racing Guidelines*."

NEW SECTION

WAC 468-400-020 Definitions. Bicycles are defined in RCW 47.04.071. Bicycle racing means any contest of speed or competition where bicycles are used. Bicycle racing permits riding more than two abreast on a roadway. This code applies to all events in which bicycle racing takes place, including the following.

(1) Duathlon, triathlon, or multisport event. A multisport race in which bicycle racing forms an essential component of the complete event. The bicycle race portion of these events is conducted similar to a time trial.

(2) Time trial. Time trials are events in which individuals or small teams of riders, separately ride the same route and distance for elapsed time. Time trials are generally started at preset intervals and held on an out and back or circuit course.

(3) Criterium. Criteriums are massed start, high speed bicycle race events in which riders race around a closed circuit course to compete for order of finish. Criteriums are usually held on closed urban or suburban public streets. The course is normally one-half to one mile in length.

(4) Road race. Road races are massed start events in which riders complete a race course for order of finish. The course may be point to point, a large circuit, or repeated laps of a shorter circuit. Road races are usually held on rural or suburban roads, but may also take place on urban streets.

(5) Rolling enclosure. A rolling enclosure is a type of traffic control where escort vehicles form a caravan leading and following a group of racers. The enclosure sets aside a moving part of the roadway in the direction of the race for exclusive use of bicyclists. Racers inside the enclosure are not required to follow the normal rules of the road but are controlled by rules set forth in the *Washington State Bicycle Racing Guidelines*. Racers are not allowed to cross the center line unless the entire road is traffic controlled. A rolling enclosure is the typical traffic control used to run a road race.

NEW SECTION

WAC 468-400-030 Bicycle race permit required. All persons or organizations (permittee) conducting any form of bicycle race on a state highway shall apply for a bicycle race permit from the applicable WSDOT region administrator. The bicycle race permit must be applied for at least sixty days before the bicycle race event. No bicycle race event

WSR 98-03-059
PROPOSED RULES
DEPARTMENT OF TRANSPORTATION
 [Filed January 20, 1998, 9:54 a.m.]

Original Notice.

Preproposal statement of inquiry was filed as WSR 97-23-002.

Title of Rule: Chapter 468-400 WAC, Bicycle racing.

Purpose: Establishes new sections WAC 468-400-010 Declaration of purpose, 468-400-020 Definitions, 468-400-030 Bicycle race permit required, and 468-400-040 Bicycle race permit conditions.

Statutory Authority for Adoption: Chapters 34.05 and 34.08 RCW.

Summary: This rule provides a uniform procedure for permitting bicycle races on state highways.

Reasons Supporting Proposal: The WAC rule is the best appropriate policy level from which to address the issue of bicycle racing and to provide the best customer service.

Name of Agency Personnel Responsible for Drafting, Implementation and Enforcement: David K. Peach, P.O. Box 47344, Olympia, WA 98504-7344, (360) 705-7282.

Name of Proponent: Washington State Department of Transportation and Baddlands Bicycle Club, public and governmental.

Rule is not necessitated by federal law, federal or state court decision.

Explanation of Rule, its Purpose, and Anticipated Effects: See Purpose above.

Proposal does not change existing rules. See Purpose above.

No small business economic impact statement has been prepared under chapter 19.85 RCW. Does not apply.

Section 201, chapter 403, Laws of 1995, does not apply to this rule adoption. Does not apply.

Hearing Location: Department of Transportation, Commission Board Room 1D2, Transportation Building, Olympia, Washington 98504, on February 25, 1998, at 1:00 p.m.

Assistance for Persons with Disabilities: Contact TDD (360) 705-6980 by February 20, 1998.

Submit Written Comments to: David K. Peach, Washington State Department of Transportation, P.O. Box 47344, Olympia, WA 98504, FAX (360) 705-6826, by February 20, 1998.

Date of Intended Adoption: February 25, 1998.

PROPOSED

may be held on a state highway without an approved bicycle race permit. The WSDOT region administrator may waive these requirements under special conditions.

NEW SECTION

WAC 468-400-040 Bicycle race permit conditions.

(1) Bicycle race permits shall be granted only under conditions that ensure reasonable safety for all participants, spectators, and highway users. Reasonable safety implies that race participants, spectators, and other highway users have been accommodated in planning in a manner as to minimize the possibility of placing one in conflict with another.

(2) Bicycle race permit requests must include a race description stating all pertinent information required to understanding the bicycle race event. The request must include a map showing the roadway on which the race will be held. Applications must specify the number of vehicles on the roadway used to run a race, starting and anticipated finish time, maximum number of racers, number and training of course marshals, types of signing, and communications equipment.

(3) Approval of other involved jurisdictions shall be obtained prior to formal issuance of a bicycle race permit from the WSDOT.

(4) If the race only crosses a state highway, the WSDOT region administrator may waive the need for a bicycle race permit provided the permittee can show that reasonable traffic control and safety are provided by the organizer and other road authority: *Provided further*, That the permittee provide the indemnification and liability insurance prescribed in subsections (6) and (7) of this section.

(5) Bicycle racing will not normally be allowed on the Interstate Highway System.

(6) The permittee shall indemnify, defend and save harmless the state of Washington for any claim, suit, action for injuries, death or any other cause of personal injury or property damage arising from the issuance of a bicycle race permit, including claims of race participants, pedestrians, or other roadway users.

(7) The permittee shall obtain liability insurance in an amount no less than one million dollars to cover the state of Washington for any and all liabilities, including all costs, attorney fees, judgments or other expenses, arising out of the use of state highways for the bicycle race event. The state shall be named as an additional insured on all insurance policies.

(8) When five or more vehicles are lined up behind a bicycle race and delayed for more than five minutes, the bicycle race shall be neutralized at a place of safety to allow the vehicles to pass.

(9) Requests for bicycle race permits must comply with the current WSDOT "*Washington State Bicycle Racing Guidelines*."

(10) The original or certified copy of the permit must be available at the bicycle race for the duration of the bicycle race event.

Copies of the "*Washington State Bicycle Racing Guidelines*" may be obtained from the WSDOT bicycle and pedestrian program or a WSDOT region office.

WSR 98-03-066
PROPOSED RULES
SUPERINTENDENT OF
PUBLIC INSTRUCTION
[Filed January 20, 1998, 3:19 p.m.]

Original Notice.

Preproposal statement of inquiry was filed as WSR 97-16-095.

Title of Rule: Monthly reporting of school district vocational enrollment.

Purpose: To implement monthly reporting of vocational enrollments for the purpose of determining enhanced state funding for vocational secondary and skills center programs.

Statutory Authority for Adoption: RCW 28A.150.290.

Statute Being Implemented: Section 502 (2)(c)(iv), chapter 149, Laws of 1997.

Summary: The full-time equivalent of vocational students shall be determined in the same manner as regular high school students based on five hours per day of twenty-five hours per week.

Reasons Supporting Proposal: Necessary to implement 1997-98 operating appropriations act proviso.

Name of Agency Personnel Responsible for Drafting: Richard M. Wilson, Superintendent of Public Instruction, Olympia, 753-2298; Implementation: Allen H. Jones, Superintendent of Public Instruction, Olympia, 753-6708; and Enforcement: Michael L. Bigelow, Superintendent of Public Instruction, Olympia, 753-1718.

Name of Proponent: Superintendent of Public Instruction, governmental.

Rule is not necessitated by federal law, federal or state court decision.

Explanation of Rule, its Purpose, and Anticipated Effects: The rule is written to convert annual reporting to monthly reporting of vocational enrollment with minimal fiscal impact.

Proposal Changes the Following Existing Rules: Current rules base vocational enhancement funding on a standard of 1.00 FTE for 900 annual hours of instruction. The proposed rule makes an equivalent calculation based on a standard of 1.00 FTE for five hours per day on the nine monthly count dates.

No small business economic impact statement has been prepared under chapter 19.85 RCW. The rule will have a minor or negligible economic impact.

Section 201, chapter 403, Laws of 1995, does not apply to this rule adoption.

Hearing Location: Wanamaker Conference Room, 2nd Floor, Old Capitol Building, 600 South Washington Street, Olympia, WA 98504-7200, on February 24, 1998, at 9:00 a.m.

Assistance for Persons with Disabilities: Contact Jim Rich by February 10, 1998, TDD (360) 664-3631, or (360) 753-6733.

Submit Written Comments to: Rules Coordinator, Legal Services, P.O. Box 47200, Olympia, WA 98504, FAX (360) 753-4201, by February 23, 1998.

Date of Intended Adoption: February 25, 1998.

January 20, 1998
Dr. Terry Bergeson
Superintendent of
Public Instruction

NEW SECTION

WAC 392-121-124 Full-time equivalent enrollment for work based learning. For work based learning provided pursuant to WAC 180-50-315, a student's full-time equivalent shall be determined as follows:

(1) Divide the student's hours of work experience for the month by two hundred twenty-five; for example: Forty-five hours of work experience equals two tenths of a full-time equivalent ($45 \div 225 = 0.20$).

(2) Estimated or scheduled hours of work experience may be used in determining a student's full-time equivalent on an enrollment count date: *Provided*, That the combined monthly hours reported for the school year shall not exceed the student's actual hours of work experience documented on the student's work records and maintained by the school district for audit purposes. Work experience during June of the regular school year shall be included in the May enrollment count.

(3) Work based learning provided as part of a state-approved vocational education program qualifies for enhanced vocational funding and may be included in determining a student's vocational full-time equivalent enrollment.

AMENDATORY SECTION (Amending WSR 95-01-013, filed 12/8/94, effective 1/8/95)

WAC 392-121-138 Full-time equivalent enrollment of vocational education students. For the purpose of enhanced funding for vocational education, full-time equivalent enrollment (~~(of students enrolled)~~) in vocational secondary and skills center(~~(s)~~) programs shall be based upon the actual hours of enrollment in state approved vocational courses. (~~(Nine hundred hours of approved vocational instruction shall equal one annual average full-time equivalent student.)~~) Vocational full-time equivalent enrollment shall be determined pursuant to WAC 392-121-122 and shall be reported on the same monthly basis as the enrollment for students eligible for basic support.

WSR 98-03-067**PROPOSED RULES
SUPERINTENDENT OF
PUBLIC INSTRUCTION**

[Filed January 20, 1998, 3:21 p.m.]

Original Notice.

Preproposal statement of inquiry was filed as WSR 97-17-067.

Title of Rule: Chapter 392-140 WAC, K-3 Staff enhancement funding component.

Purpose: To restore rules previously adopted February 1996 and inadvertently repealed August 1996.

Statutory Authority for Adoption: RCW 28A.150.290.

Statute Being Implemented: Biennial Operating Appropriations Act.

Summary: See Purpose above.

Reasons Supporting Proposal: See Purpose above.

Name of Agency Personnel Responsible for Drafting: Richard M. Wilson, Superintendent of Public Instruction, Olympia, 753-2298; Implementation: John Molohon, Superintendent of Public Instruction, Olympia, 753-6708;

and Enforcement: Michael L. Bigelow, Superintendent of Public Instruction, Olympia, 753-1718.

Name of Proponent: Superintendent of Public Instruction, governmental.

Rule is not necessitated by federal law, federal or state court decision.

Explanation of Rule, its Purpose, and Anticipated Effects: Readoption of the rules is essential to the determination and apportionment of state funding for the 1997-98 school year.

Proposal does not change existing rules.

No small business economic impact statement has been prepared under chapter 19.85 RCW. The rule will have a minor or negligible economic impact.

Section 201, chapter 403, Laws of 1995, does not apply to this rule adoption.

Hearing Location: Wanamaker Conference Room, 2nd Floor, Old Capitol Building, 600 South Washington Street, Olympia, WA 98504-7200, on February 24, 1998, at 9:00 a.m.

Assistance for Persons with Disabilities: Contact Jim Rich by February 10, 1998, TDD (360) 664-3631, or (360) 753-6733.

Submit Written Comments to: Rules Coordinator, Legal Services, P.O. Box 47200, Olympia, WA 98504, FAX (360) 753-4201, by February 23, 1998.

Date of Intended Adoption: February 25, 1998.

January 20, 1998

Dr. Terry Bergeson
Superintendent of
Public Instruction

**K-3 STAFF
ENHANCEMENT****NEW SECTION**

WAC 392-140-700 K-3 Staff enhancement—Applicable provisions. The provisions of WAC 392-140-700 through 392-140-747 apply to the determination of staff/student ratios used in apportionment of state basic education moneys to school districts based on the district's kindergarten through third grade (K-3) staff and students. Compliance with these sections does not assure compliance with:

(1) RCW 28A.150.100(2), which requires each school district to maintain a ratio of at least forty-six basic education certificated instructional staff per thousand annual average full-time equivalent students; or

(2) RCW 28A.150.250, which requires that the ratio of students per classroom teacher in grades kindergarten through three be no greater than the ratio of students per classroom teacher in grades four and above.

NEW SECTION

WAC 392-140-701 K-3 Staff enhancement—Authority. The authority for WAC 392-140-700 through 392-140-747 is:

(1) The Biennial Operating Appropriations Act established by the legislature for each school year; and

(2) RCW 28A.150.290(1).

NEW SECTION

WAC 392-140-702 K-3 Staff enhancement—Purpose. The purpose of WAC 392-140-700 through 392-140-747 is to set forth the policies and procedures used by the superintendent of public instruction to determine the amount of moneys to be provided to school districts for certificated instructional staff above that set forth in RCW 28A.150.260 (2)(c).

NEW SECTION

WAC 392-140-710 K-3 Staff enhancement—Definition—Academic year. As used in WAC 392-140-700 through 392-140-747 "academic year" means any nine-month period within the school year in which the minimum one hundred eighty school days required by law is conducted.

NEW SECTION

WAC 392-140-711 K-3 Staff enhancement—Definition—S-275. "S-275" means the S-275 reporting process defined in WAC 392-121-220.

NEW SECTION

WAC 392-140-712 K-3 Staff enhancement—Definition—SPI Form S-277. "SPI Form S-277" means the form provided, for school years through 1994-95 by the superintendent of public instruction on which school districts report information about each classified employee of the school district as of October 1 of the school year including the employee's name, Social Security number, working hours, assignments, rate of pay, and benefits.

NEW SECTION

WAC 392-140-713 K-3 Staff enhancement—Definition—SPI Form 1158. "SPI Form 1158" means the form provided by the superintendent of public instruction on which school districts report supplemental full-time equivalent (FTE) staff and/or supplemental K-3 FTE staff for the school year.

NEW SECTION

WAC 392-140-714 K-3 Staff enhancement—Definition—SPI Report 1159. "SPI Report 1159" means the report produced by the superintendent of public instruction displaying the calculations of K-3 certificated instructional staffing and K-3 apportionment ratios and other information as necessary.

NEW SECTION

WAC 392-140-715 K-3 Staff enhancement—Definition—SPI Form 1160. "SPI Form 1160" means the form provided by the superintendent of public instruction on which school districts may select the period of enrollment the superintendent of public instruction shall use to calculate staffing ratios.

NEW SECTION

WAC 392-140-716 K-3 Staff enhancement—Definition—SPI Form 1230. "SPI Form 1230" means the form provided by the superintendent of public instruction on which school districts report 1989-90 FTE K-3 basic education classified instructional assistants.

NEW SECTION

WAC 392-140-720 K-3 Staff enhancement—Definition—FTE K-3 basic education enrollment. "FTE K-3 basic education enrollment" means the school district's enrollment for October or for such other period selected by the school district on SPI Form 1160 determined as follows:

- (1) Sum FTE K-3 students reported by a school district pursuant to WAC 392-121-122 (1) and (2); and
- (2) For school years through 1994-95 subtract special education FTE students of ages six through eight calculated pursuant to WAC 392-122-131 based on enrollment reported by a school district pursuant to WAC 392-122-106.

NEW SECTION

WAC 392-140-721 K-3 Staff enhancement—Definition—FTE basic education certificated instructional employee. "FTE basic education certificated instructional employee" means the FTE calculated pursuant to WAC 392-121-215 for a basic education certificated instructional employee assigned in whole or in part to the following programs as defined in the accounting manual for public school districts in the state of Washington:

- (1) Basic education, program 01;
- (2) Vocational, basic, state, program 31;
- (3) Skills center, basic, state, program 45;
- (4) Instruction support, program 94; and
- (5) District-wide support, program 97.

NEW SECTION

WAC 392-140-722 K-3 Staff enhancement—Definition—FTE K-3 basic education certificated instructional employee. "FTE K-3 basic education certificated instructional employee" means for a FTE basic education certificated instructional employee the following:

- (1) If the basic education certificated instructional employees serves only K-3 students, one hundred percent of the FTE assigned to basic education; or
- (2) If the basic education certificated instructional employee serves K-3 students and students of one or more other grades, multiply the FTE assigned to basic education by:
 - (a) The proportion of time spent serving K-3 students to all time serving students;
 - (b) The proportion of K-3 students served to all students served; or
 - (c) Any combination of (a) or (b) of this subsection as appropriate.

NEW SECTION**WAC 392-140-723 K-3 Staff enhancement—**

Definition—FTE K-3 basic education certificated instructional staff. "FTE K-3 basic education certificated instructional staff" means the sum of FTE K-3 basic education certificated instructional employees for a school district.

NEW SECTION**WAC 392-140-724 K-3 Staff enhancement—**

Definition—Average basic education certificated instructional staff salary for the purpose of apportionment. "Average basic education certificated instructional staff salary for purpose of apportionment" means the average salary allocation amount for basic education certificated instructional staff determined by the superintendent of public instruction for general apportionment of state basic education moneys to a school district pursuant to WAC 392-121-299.

NEW SECTION**WAC 392-140-725 K-3 Staff enhancement—**

Definition—Basic education classified instructional assistant. "Basic education classified instructional assistant" means a person who is assigned in whole or in part to:

- (1) Program 01-basic education,
 - 31-vocational, basic, state, or
 - 45-skills center, basic, state; and
- (2) Activity 27-teaching; and
- (3) Duty 910-aide.

NEW SECTION**WAC 392-140-726 K-3 Staff enhancement—**

Definition—Basic education classified instructional assistant FTE. "Basic education classified instructional assistant FTE" means the number determined for a basic education classified instructional assistant as follows:

- (1) Determine the hours per year that the employee is assigned as a basic education classified instructional assistant; and
- (2) Divide by 2080.

NEW SECTION**WAC 392-140-727 K-3 Staff enhancement—**

Definition—FTE K-3 basic education classified instructional assistants. "FTE K-3 basic education classified instructional assistants" means the number determined for a school district as follows:

- (1) For each basic education classified instructional assistant serving K-3 students determine an FTE as follows:
 - (a) If the basic education classified instructional assistant serves only K-3 students, one hundred percent of the FTE determined pursuant to WAC 392-140-726.
 - (b) If the basic education classified instructional assistant serves K-3 students and students of one or more other grades, multiply the FTE determined pursuant to WAC 392-140-726 by:
 - (i) The proportion of time spent serving K-3 students to all time serving students;
 - (ii) The proportion of K-3 students served to all students served; or

(iii) Any combination of (b)(i) or (ii) of this subsection as appropriate.

(2) Sum the FTEs determined pursuant to subsection (1) of this section for all basic education classified instructional assistants of the school district.

NEW SECTION**WAC 392-140-728 K-3 Staff enhancement—**

Definition—Instructional FTE. As used in WAC 392-140-700 through 392-140-747, "instructional FTE" means:

- (1) For basic education certificated instructional employee, the FTE determined pursuant to WAC 392-140-721.
- (2) For a basic education classified instructional assistant, the FTE determined pursuant to WAC 392-140-726.

NEW SECTION**WAC 392-140-730 K-3 Staff enhancement—**

Definition—K-3 addition FTE. "K-3 addition FTE" means the increase in FTE calculated pursuant to WAC 392-140-733 for a K-3 basic education certificated instructional employee or a K-3 basic education classified instructional assistant who is not reported on the S-275 or for school years through 1994-95 on SPI Form S-277 (for a classified employee), or whose instructional FTE increases after October 1 of the school year.

NEW SECTION**WAC 392-140-731 K-3 Staff enhancement—**

Definition—K-3 reduction FTE. "K-3 reduction FTE" means the decrease in K-3 FTE calculated pursuant to WAC 392-140-733 for a basic education certificated instructional employee or a basic education classified instructional assistant who is no longer employed or whose instructional FTE decreases after October 1 of the school year.

NEW SECTION**WAC 392-140-732 K-3 Staff enhancement—**

Definition—K-3 reassignment FTE. "K-3 reassignment FTE" means the change in K-3 FTE calculated pursuant to WAC 392-140-733 for a basic education certificated instructional employee or a basic education classified instructional assistant after October 1 whose K-3 FTE changes as a result of reassignment but whose total instructional FTE does not change.

NEW SECTION**WAC 392-140-733 K-3 Staff enhancement—**

Calculation of addition, reduction, and reassignment FTE. Addition, reduction, and reassignment FTE shall be calculated as follows:

- (1) Determine the K-3 basic education FTE that would have been reported for the employee:
 - (a) In school years through 1994-95 on the S-275 (for a certificated instructional employee) or SPI Form S-277 (for a classified instructional assistant) if the employee had served the full academic year at the level of service after the change in service;

(b) In the 1995-96 school year and thereafter, on the S-275 if the employee had served the full academic year at the level of service after the change in service;

(2) Subtract the K-3 basic education FTE as of October 1 as reported for the employee on SPI Form S-275 (for a certificated instructional employee) or on SPI Form S-277 (for a classified instructional assistant) from the result obtained in subsection (1) of this section;

(3) Multiply the result obtained in subsection (2) of this section by the number of months remaining in the academic year that the employee serves at the level of service after the change in service, including the month of the change; and

(4) Divide the result obtained in subsection (3) of this section by nine.

NEW SECTION

WAC 392-140-735 K-3 Staff enhancement—
Definition—Supplemental FTE K-3 basic education certificated instructional staff. "Supplemental FTE K-3 basic education certificated instructional staff" means the sum of school district's K-3 addition, reduction, and reassignment FTEs for K-3 basic education certificated instructional staff.

NEW SECTION

WAC 392-140-736 K-3 Staff enhancement—
Definition—Supplemental FTE K-3 basic education classified instructional assistants. "Supplemental FTE K-3 basic education classified instructional assistants" means the sum of a school district's K-3 addition, reduction, and reassignment FTEs for K-3 basic education classified instructional assistants.

NEW SECTION

WAC 392-140-740 K-3 Staff enhancement—
Definition—K-3 certificated instructional staffing ratio. "K-3 certificated instructional staffing ratio" means the ratio calculated for a school district for a school year as follows:

(1) Add FTE K-3 basic education certificated instructional staff as reported on the S-275 and any supplemental FTE K-3 basic education certificated instructional staff as reported on SPI Form 1158;

(2) Divide the result of subsection (1) of this section by FTE K-3 basic education enrollment; and

(3) Multiply the result obtained in subsection (2) of this section by 1000.

NEW SECTION

WAC 392-140-741 K-3 Staff enhancement—
Definition—Actual average salary for basic education classified instructional assistants. "Actual average salary for basic education classified instructional assistants" means the dollar amount determined for a school district for a school year as follows:

(1) For each basic education classified instructional assistant reported:

(a) On SPI Form S-277 for school years through 1994-95 multiply the hours per day times the days per year times the hourly rate as reported on Form S-277;

(b) On the S-275 for a school year during the period 1995-96 and thereafter, determine the assignment salary as reported on the S-275;

(2) Sum the dollar amounts determined pursuant to subsection (1) of this section; and

(3) Divide the result of subsection (2) of this section by the sum of the school district's FTE basic education classified instructional assistants for the school year as reported on Form S-277 or the S-275.

NEW SECTION

WAC 392-140-742 K-3 Staff enhancement—
Definition—Increase in K-3 basic education classified instructional assistants from 1989-90. "Increase in K-3 basic education classified instructional assistants from 1989-90" means the greater of zero and the number calculated for a school district as follows:

(1) Sum FTE K-3 basic education classified instructional assistants reported for school years through 1994-95 on SPI Form S-277 or for the 1995-96 school year and thereafter on the S-275, and any supplemental FTE K-3 basic education classified instructional assistants as reported on SPI Form 1158; and subtract

(2) 1989-90 K-3 basic education classified instructional assistants as reported on SPI Form 1230.

NEW SECTION

WAC 392-140-743 K-3 Staff enhancement—
Definition—Recognized certificated staff ratio equivalent of increased K-3 classified instructional assistants. "Recognized certificated staff ratio equivalent of increased K-3 classified instructional assistants" means the number calculated for a school district with a K-3 certificated instructional staffing ratio of 51.00 or greater and an increase in K-3 basic education classified instructional assistants from 1989-90 as follows:

(1) Divide the increase in K-3 basic education classified instructional assistants from 1989-90 by FTE K-3 basic education enrollment;

(2) Multiply the result of subsection (1) of this section by 1000;

(3) Multiply the result of subsection (2) of this section by the ratio of actual average salary for basic education classified instructional assistants to average basic education certificated instructional staff salary for the purpose of apportionment;

(4) The lesser of 1.30 and the result of subsection (3) of this section is the school district's recognized certificated staff ratio equivalent of increased K-3 classified instructional assistants.

NEW SECTION

WAC 392-140-744 K-3 Staff enhancement—School district reporting—Required reports. Each school district shall report to the superintendent of public instruction on the S-275 and for school years through 1994-95 on SPI Form S-277 the school district's FTE K-3 basic education certificated instructional staff and FTE K-3 basic education classified instructional assistants as of October 1 of the school year.

School districts shall report pursuant to instructions provided by the superintendent of public instruction.

NEW SECTION

WAC 392-140-745 K-3 Staff enhancement—School district reporting—Optional reports. At any time prior to September 30 of the following school year school districts may report to the superintendent of public instruction:

- (1) Supplemental FTE K-3 staff for the school year on SPI Form 1158;
- (2) One of the following optional periods of enrollment on SPI Form 1160:
 - (a) Enrollment for any month of the school year; or
 - (b) Annual average enrollment for the school year; and
- (3) 1989-90 FTE K-3 classified instructional assistants on SPI Form 1230.

NEW SECTION

WAC 392-140-746 K-3 Staff enhancement—Calculation of K-3 apportionment ratios. The superintendent of public instruction shall calculate each school district's ratio of state allocated certificated instructional staff units per one thousand K-3 students for state basic education apportionment as follows:

- (1) If the school district's K-3 certificated instructional staffing ratio is 49.00 or less, the district's K-3 apportionment ratio shall be 49.00.
- (2) If the school district's K-3 certificated instructional staffing ratio is greater than 49.00, and less than 51.00, the district's K-3 apportionment ratio shall be the same as the district's K-3 certificated instructional staffing ratio.
- (3) If the school district's K-3 certificated instructional staffing ratio is 51.00 or greater, the district's K-3 apportionment ratio shall be the lesser of:
 - (a) 54.30; and
 - (b) The sum of the district's K-3 certificated instructional staffing ratio and, if applicable, the district's recognized certificated staff ratio equivalent of increased K-3 classified instructional assistants.

NEW SECTION

WAC 392-140-747 K-3 Staff enhancement—Reporting by the superintendent of public instruction. The superintendent of public instruction shall report to school districts as follows:

- (1) Prior to January 31 of each school year the superintendent of public instruction shall provide each school district an initial SPI Report 1159. The report shall include any supplemental data received from the school district prior to January 1 of the school year.
- (2) Within thirty days of receiving any of the following data from a school district the superintendent of public instruction shall provide the school district with an interim SPI Report 1159:
 - (a) Supplemental FTE K-3 staff on SPI Form 1158;
 - (b) Selection of optional enrollment on SPI Form 1160;
 - (c) Corrections to FTE K-3 basic education certificated instructional staff on the S-275; or
 - (d) Corrections to FTE K-3 basic education classified instructional assistants on SPI Form S-277 or on the S-275.

(3) Prior to January 1 of the following school year, the superintendent of public instruction shall provide each school district a final SPI Report 1159. The report shall include supplemental data for the school year received from the school district prior to September 30 of the following school year.

(4) Reports shall show the school district's K-3 certificated instructional staffing ratio, recognized certificated staff ratio equivalent of increased K-3 classified instructional assistants, and K-3 apportionment ratio for the school year.

WSR 98-03-068
PROPOSED RULES
GAMBLING COMMISSION
 [Filed January 20, 1998, 4:00 p.m.]

Original Notice.

Preproposal statement of inquiry was filed as WSR 98-01-090 dated December 15, 1997.

Title of Rule: Raffle rules, WAC 230-20-325 Manner of conducting a raffle and 230-20-335 Members-only raffles—Procedures—Restrictions.

Purpose: Change raffle rules to allow Class C or Class D raffle license holders to offer a single discount scheme for each raffle; ensure that discount schemes have proper internal controls and audit system.

Other Identifying Information: Organizations that sell tickets at a discount are required to submit their discount scheme and audit system to the agency director for approval, prior to sale of tickets.

Statutory Authority for Adoption: RCW 9.46.070 (3), (8), (11), and (14).

Summary: See Purpose above.

Reasons Supporting Proposal: Rule change would allow nonprofits to sell raffle tickets at a discount, thereby stimulating sales without compromising the agency's ability to audit activities and ensure that the public is not defrauded.

Name of Agency Personnel Responsible for Drafting: Soojin Kim, Lacey, (360) 438-7654 ext. 310; Implementation: Ben Bishop, Lacey, (360) 438-7654 ext. 302; and Enforcement: Carrie Tellefson, Lacey, (360) 438-7654 ext. 373.

Name of Proponent: Staff, private.

Rule is not necessitated by federal law, federal or state court decision.

Explanation of Rule, its Purpose, and Anticipated Effects: See Purpose and Reasons Supporting Proposal above.

Proposal Changes the Following Existing Rules: Currently, only organizations holding a Class E or higher raffle license are allowed to give discounts on raffle tickets. The amendment to WAC 230-20-325 allows Class C or Class D raffle license holders to offer a single discount scheme for each raffle, provided that the discount is set prior to beginning the sale of raffle tickets. The discounted tickets will be bundled into booklets and labeled with the sales scheme, including the number of tickets and the total cost of the booklet.

The amendment to WAC 230-20-335 applies to members-only raffles. It would require organizations that sell raffle tickets at a discount to submit their pricing discount

PROPOSED

scheme and an audit system for internal controls to the director for approval, prior to the sale of tickets. The discount scheme will remain valid until modified by the licensee or approval is revoked by the director. The discount scheme cannot be changed during the raffle. The price of a single ticket will be imprinted on each ticket and the discounted price will be imprinted on the package of tickets. The price of a single ticket shall not exceed two dollars and a package of discounted tickets shall not exceed twenty-five dollars.

No small business economic impact statement has been prepared under chapter 19.85 RCW. Proposal is exempt under RCW 19.85.025(2); therefore, a small business economic impact statement is not required.

RCW 34.05.328 does not apply to this rule adoption. This agency does not choose to make section 201, chapter 403, Laws of 1995 apply to this rule adoption.

Hearing Location: Holiday Inn Sea-Tac, 17338 International Boulevard, SeaTac, WA 98188, (206) 248-1000, on March 13, 1998, at 10:00 a.m.

Assistance for Persons with Disabilities: Contact Susan Green by March 1, 1998, TDD (360) 438-7638, or (360) 438-7654, ext. 302.

Submit Written Comments to: Soojin Kim, Mailstop 42400, Olympia, Washington 98504-2400, FAX (360) 438-8652, by February 28, 1998.

Date of Intended Adoption: March 13, 1998.

Soojin Kim
Rules and Policy Coordinator

AMENDATORY SECTION (Amending Order 303, filed 11/21/96, effective 12/22/96)

WAC 230-20-325 Manner of conducting a raffle.

What are the general requirements for conducting a raffle?

(1) All raffles shall be conducted by selling individual chances for not more than twenty-five dollars and awarding prizes by selecting winners by a random drawing from among all chances sold(+(+)). The following operating procedures apply:

(2) All raffle chances shall be consecutively numbered tickets or other objects imprinted with letters or symbols that are not repeated within the population of all chances sold for a specific raffle;

(3) No person shall be required to obtain more than one chance to enter a raffle;

What additional requirements apply to raffles offered to the general public and raffles that do not require the winner to be present at the drawing?

(4) Raffle chances sold to the general public or for raffles that do not require the winner to be present at the drawing shall consist of a ticket that includes a stub or other detachable section bearing a duplicate number, letter, or symbol corresponding to the number, letter, or symbol on the ticket or object representing the player's chance. The portion retained by the raffle operator shall include the participant's name, complete address, telephone number, and/or other information necessary to notify the winner;

What information must be provided to raffle participants and when must such information be provided?

(5) All participants in a raffle must be informed of all rules by which such prizes may be won at the time of sale of a chance. This information shall be provided by either imprinting such on the participant's portion of the ticket or otherwise providing such to each participant in writing. The following information shall be provided to each participant:

- (a) The cost of each chance;
- (b) All prizes available, whether cash or merchandise;
- (c) Date and time of drawing;
- (d) Location of drawing;
- (e) Whether an entrant is required to be present at a raffle drawing in order to be eligible to win a prize; and
- (f) Name of organization conducting raffle;

What are the restrictions on raffle entry fees and ticket prices?

(6) No person shall be required to pay, directly or indirectly, more than twenty-five dollars in order to enter any raffle: *Provided*, That the sale of more than a single ticket to a single participant or the sale of a booklet of tickets under approval of the director, as authorized by subsection (7) of this section, shall not be deemed a violation of this section;

(7) Each raffle ticket must be sold for the same price as every other raffle ticket being used for that particular raffle: *Provided*, That the director may authorize a licensee to sell tickets at a discount if:

(a) A petition for approval for discount sales is received at the Lacey headquarters office at least thirty days prior to beginning the raffle for which such approval is requested. Each petition for approval to sell discounted raffle tickets shall include at least the following:

- (i) A full description of the discount scheme;
- (ii) The accounting controls and records to be used; and
- (iii) A facsimile of the tickets and booklet cover planned for the raffle.

(b) Any licensee requesting approval for this activity shall reimburse the commission for all costs in reviewing and approval of such under the guidelines set forth in WAC 230-08-017;

(c) The organization has a Class E or higher raffle license: *Provided*, That organizations that are licensed to conduct raffles at Class C or Class D may participate in this activity if all requirements of WAC 230-08-070 are followed;

(d) Participants must be allowed to purchase a single ticket;

(e) A single discount scheme is allowed for each raffle. The amount of the discount must be set prior to beginning sales for the raffle and shall not be changed during any raffle. The following restrictions apply to such discounted tickets:

(i) Discounted tickets must be bundled into booklets that(+(

- ~~(i) Contain not more than five tickets;~~
- ~~(ii) Are not)) contain the number of tickets set forth in the scheme (i.e., ten tickets if tickets are sold for two dollars a piece or ten for fifteen dollars, three tickets if tickets are sold for five dollars a piece or three for ten dollars, five tickets if tickets are sold for five dollars a piece or five for twenty dollars, etc.);~~

(ii) Tickets bundled into booklets shall not be removed from the booklet and sold individually; and

(iii) The booklet cover of each ticket booklet ~~((i))~~ shall be imprinted with a description of the sales scheme that includes the number of tickets included and the total cost of the booklet and a control number that meets the requirements of subsection ~~((1))~~ (2) of this section((-

~~(f) The maximum discount for a ticket bundled into a booklet is twenty percent of the single ticket price;~~

~~(g) The value of each ticket sold, net of the discount, shall be imprinted on the ticket; and~~

~~(h)); and~~

(f) Accounting procedures must be established that provide controls necessary to allow commission staff the ability to audit gross gambling receipts from such tickets;

What are the limits on what may be offered as a prize or reward for either selling or purchasing tickets?

(8) No free tickets, or any opportunity to participate in the drawing of any raffle, shall be awarded or given to a person as a prize or reward for selling raffle tickets or for purchasing a certain number of raffle tickets: Provided, That noncash incentive awards may be provided to members selling tickets if:

(a) Individual awards do not exceed a fair market value of ten dollars;

(b) The awards are based on the number of chances sold; and

(c) The fair market value of the total amount awarded for an individual raffle does not exceed two percent of the gross gambling receipts of the raffle;

What are the procedures for handling sold tickets?

(9) Each ticket seller shall return to the licensee the stubs or other detachable section of all tickets sold. The licensee shall then place each stub or other detachable section of each ticket sold into a receptacle from which the winning tickets are to be drawn;

What are the procedures for conducting a raffle drawing?

(10) The raffle license issued by the commission or a copy of the license shall be posted in plain view at the location at all times during the occasion when a drawing is being conducted.

(11) The ticket collection receptacle shall be designed so that each ticket has an equal opportunity to be drawn: Provided, that an alternative drawing format to determine the winner may be utilized if such format is approved by the director before tickets are sold and the following requirements are complied with:

(a) The organization must have a current raffle license;

(b) The alternate format must meet the definition of a drawing as defined by WAC 230-02-500;

(c) The random selection process used in the alternative format shall be fully disclosed to each player prior to selling a ticket;

(d) Any alternate format utilized to determine the winners must be closely controlled by the licensee; and

(e) The written request to utilize an alternative drawing format shall contain, at a minimum, the following information:

(i) The time, date and location of the drawing;

(ii) The type of random selection process to be used and complete details of its operation;

(iii) The name and telephone number of the raffles manager; and

(iv) The signature of the organization's chief executive officer.

AMENDATORY SECTION (Amending WSR 96-07-077, filed 3/19/96, effective 7/1/96)

WAC 230-20-335 Members-only raffles—Procedures—Restrictions. Organizations may conduct members-only raffles utilizing simplified procedures. For purposes of this section, "members-only raffle" means a raffle conducted by selling chances only to members of the organization and a limited number of guests, and determining the winners from among those members and guests that have purchased chances. The following procedures and restrictions supplement or modify WAC 230-08-070 and 230-20-325 and apply only to members-only raffles:

(1) In order to conduct raffles utilizing these simplified procedures, all phases of the raffle must be completed during a meeting of the members, and the meeting must be completed on the same day and at the same location without interruption;

(2) If guests are allowed to participate, the total number of guests, as a percentage of the total attendance of the meeting, shall not exceed twenty-five percent. Records shall be maintained that will allow commission staff to determine compliance with this requirement;

(3) All disclosures required to be imprinted on a raffle ticket or chance may be provided to participants by posting a sign at each ticket sales point;

(4) Chances to enter a raffle may be included as a part of a package that includes dues, entertainment, or other fund-raising activities if the value of each component of the package is disclosed to the purchaser and the value of each individual raffle chance does not exceed twenty-five dollars: *Provided*, That initial applications for membership and any fees paid for such shall not include chances to enter raffles or to participate in any gambling activities;

(5) The director may authorize an organization to deviate from the "same price" requirements of WAC 230-20-325(5). Approval for such schemes must be in writing and received prior to beginning ticket sale utilizing such sales. Approval of such schemes remain valid until the scheme is modified by the licensee or the approval is revoked by the director. The following pricing schemes may be approved:

(a) Chances to enter a raffle may be sold for different values, ranging from one cent to a maximum of ten dollars, if the following conditions are met:

~~((a))~~ (i) The scheme for assigning the cost of the ticket must be disclosed to the player before selling them a chance to participate. This disclosure shall include the total number of tickets in the population and the number of tickets at each price level;

(ii) Participants must be allowed to randomly select their ticket from the population of remaining tickets. Participants pay the amount imprinted upon the ticket they select;

(iii) The scheme provides an adequate audit trail that will allow commission staff and taxing authorities to determine gross gambling receipts;

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(iv) The total gross gambling receipts available from raffles utilizing such schemes are limited to five thousand five dollars each drawing;

(v) No more than two such drawings are conducted during a meeting of the members.

~~(b) ((Participants must be allowed to randomly select their ticket from the population of remaining tickets. Participants pay the amount imprinted upon the ticket they select;~~

~~(c) The scheme provides an adequate audit trail that will allow commission staff and taxing authorities to determine gross gambling receipts;~~

~~(d) The total gross gambling receipts available from raffles utilizing such schemes are limited to five thousand five dollars each drawing;~~

~~(e) No more than two such drawings are conducted during a meeting of the members; and~~

~~(f) Approval must be obtained in writing from the director. Such approval shall be valid until revoked by commission staff;)) Chances may be sold for a discounted price that is based on the number of tickets a player purchases if:~~

(i) Participants are allowed to purchase a single ticket;

(ii) A single discount scheme is allowed for each raffle.

The amount of the discount must be set prior to beginning sales for the raffle and shall not be changed during the raffle;

(iii) The cost of a single ticket, without a discount, does not exceed two dollars;

(iv) The total cost of a discount package does not exceed twenty-five dollars;

(v) The cost of a single ticket shall be imprinted on each ticket (i.e., one dollar a piece or twelve for ten dollars; or two dollars a piece or fifteen for twenty dollars); and

(vi) The licensee shall establish an audit system that includes controls and procedures that will allow commission agents and taxing authorities the ability to determine gross gambling receipts from the sale of tickets utilizing discounts. Such system shall be submitted to the director as a part of the approval request;

(6) The following sales schemes may be used for members-only raffles:

(a) Multiple tickets to enter one or more drawings may be sold as a package as long as the total price of the package does not exceed twenty-five dollars; and

(b) Alternative sales methods may be used if specifically authorized by the commission. This authority will be issued on an individual basis and will require a detailed written request;

(7) Alternative drawing formats approved for members-only raffles shall be valid until revoked by the commission staff, if all the information required by this subsection is reported to the commission at least ten days before any drawing using such schemes. Notification for members-only raffles may be signed by the designated raffle manager;

(8) The limitations on noncash incentive awards for an individual raffle, set forth in WAC 230-20-325 ~~((6))~~ (8)(a) and (c), are modified to allow awards that do not exceed five percent of the combined gross gambling receipts for all raffles conducted during a membership meeting if a record of the name, address, and telephone number is maintained

for all persons receiving awards valued in excess of fifty dollars;

(9) Raffle records, as required by WAC 230-08-070, are modified as follows:

(a) The threshold value for maintaining a record of the name, address, and telephone number of each winner of a prize is increased to include only prizes valued in excess of fifty dollars;

(b) Ticket disbursement records are not required; and

(c) Minimum record retention period is reduced to a period that is not less than one year following the date of each individual raffle drawing.

WSR 98-03-069
PROPOSED RULES
GAMBLING COMMISSION
[Filed January 20, 1998, 4:03 p.m.]

Original Notice.

Preproposal statement of inquiry was filed as WSR 98-01-091 dated December 15, 1997.

Title of Rule: WAC 230-12-330 Availability of gambling equipment and related products and services—Prices—Contracts—Discounts—Restrictions—Exceptions.

Purpose: Housekeeping. This rule was last amended when the manufacturer and distributor rules package passed in September 1997. The commission voted to delete a more specific exception to the prohibition against exclusive contracts in subsection (2)(b). This amendment deletes this specific exception.

Statutory Authority for Adoption: RCW 9.46.070(11).

Summary: See Purpose above.

Reasons Supporting Proposal: This amendment corrects oversight in previous filing; specific exception for manufacturers of pull tab dispensing devices who have patent was found to be unnecessary.

Name of Agency Personnel Responsible for Drafting: Soojin Kim, Lacey, (360) 438-7654 ext. 310; Implementation: Ben Bishop, Lacey, (360) 438-7654 ext. 302; and Enforcement: Carrie Tellefson, Lacey, (360) 438-7654, ext. 373.

Name of Proponent: Staff, private.

Rule is not necessitated by federal law, federal or state court decision.

Explanation of Rule, its Purpose, and Anticipated Effects: See Purpose and Reasons Supporting Proposal above.

Proposal Changes the Following Existing Rules: Currently, in WAC 230-12-330, a general exception that holders of proprietary rights shall be allowed to enter into license agreements with manufacturers that restrict the ability to manufacture or distribute products or services if all other requirements of this section are met. This amendment deletes the more specific exception in subsection (2)(b) that states that manufacturers may offer for sale pull tab dispensing devices that are designed to use specifically developed pull tab series if the manufacturer has a patent.

No small business economic impact statement has been prepared under chapter 19.85 RCW. Proposal is exempt under RCW 19.85.025(2); therefore, a small business economic impact statement is not required.

RCW 34.05.328 does not apply to this rule adoption. This agency does not choose to make section 201, chapter 403, Laws of 1995 apply to this rule adoption.

Hearing Location: Holiday Inn Sea-Tac, 17338 International Boulevard, SeaTac, WA 98188, (206) 248-1000, on March 13, 1998, at 10:00 a.m.

Assistance for Persons with Disabilities: Contact Susan Green by March 1, 1998, TDD (360) 438-7638, or (360) 438-7654 ext. 302.

Submit Written Comments to: Soojin Kim, Mailstop 42400, Olympia, Washington 98504-2400, FAX (360) 438-8652, by February 28, 1998.

Date of Intended Adoption: March 13, 1998.

Soojin Kim
Rules and Policy Coordinator

AMENDATORY SECTION (Amending WSR 97-20-026, filed 9/22/97, effective 1/1/98)

WAC 230-12-330 Availability of gambling equipment and related products and services—Prices—Contracts—Discounts—Restrictions—Exceptions. Manufacturers and distributors shall make their products and services available to all licensees without discrimination. Except as authorized by this section, gambling equipment, devices, related paraphernalia or supplies, and services shall be offered to any licensee wishing to purchase such, for the same price and terms. The following restrictions, procedures, and exceptions apply to prices and terms related to sales of gambling-related products or services:

What are the restrictions on prices of gambling products and services?

(1) Discriminatory prices are prohibited. Prices are considered discriminatory when identical or similar items or services are offered to different persons for a different price or under different terms or conditions: *Provided*, That prices set under the following criteria shall not be considered discriminatory:

(a) Prices that are established in advance and available for review by the commission and customers prior to accepting a sales order utilizing such. For purposes of this section, prices are deemed to be established and available when they have been mailed or transmitted by facsimile to the commission at least forty-eight hours prior to completing sales transactions or accepting orders for products or services;

(b) Separate and different price schedules established by manufacturers or distributors for transactions conducted with licensees at different marketing levels when such prices are progressively lower at each marketing level above the operator level;

(c) Prices that are based upon the delivery location of an item or service. If the price of an item or service is based upon "free on board" (FOB) terms at a specific location, such price may be varied based upon delivery at a different location, if such is justified by objective evidence. The burden of proof regarding such price differentiation is borne by the seller. Such prices are subject to all other requirements of this section; and

(d) Short-term price reductions or "sales" by manufacturers or distributors are authorized when every licensee is

afforded an opportunity to participate. For purposes of this section licensees will be deemed to have been afforded an opportunity to participate when:

(i) All prices and terms are clearly posted at all sales outlets for the benefit of operators and provided to all customers serviced by mobile sales representatives;

(ii) Manufacturers provide full details of the sale to all licensed distributors, including prices and terms, at least forty-eight hours prior to accepting orders for products or services being offered at a sale price. Such notice shall be by mail or telephone facsimile; and

(iii) Any limitations or conditions of the sale are clearly stated in advertisements or notices for such sale.

Can licensees enter into contracts that either require or restrict use of gambling-related products or services?

(2) Except as set forth in WAC 230-12-230, licensees shall not enter into contracts that directly or indirectly restrict the distribution or use of gambling equipment, devices, paraphernalia, supplies, or services: *Provided*, That holders of proprietary rights to products or services that have been gained through patents, copyrights, trademarks, or other similar rights bestowed by state or federal law or by courts shall be allowed to enter into license agreements with manufacturers that restrict the ability to manufacture or distribute products or services if all other requirements of this section are met. The following transactions are prohibited:

(a) An operator or distributor shall not agree to deal in, purchase, sell, lease, or operate any particular brand or brands of gambling device or equipment to the exclusion of any other brand of gambling device or equipment;

(b) A manufacturer or distributor, or licensed representative or employee thereof, shall not sell or offer to sell, lease, or loan any gambling-related product, service, or merchandise if such is contingent upon the purchase or order of another product, service, or merchandise (~~—*Provided*, That a manufacturer may offer for sale in the state of Washington, pull tab dispensing devices that are designed to use specifically developed pull tab series if the manufacturer has a patent or other exclusive right to protect its distribution~~); and

(c) Except as set forth in this subsection, no person shall enter into any agreement, express or implied, that prohibits a person from selling or providing any gambling-related product or service within a particular geographic area: *Provided*, That -

(i) Licensed manufacturers, distributors, and service suppliers may enter into such agreements with its licensed representative; and

(ii) An operator may enter into an agreement with a licensed service supplier that is supplying only management or consulting services when such agreement only restricts the service supplier from supplying the same or similar services to other operators within a specified geographic area.

Are discounts allowed?

(3) Manufacturers and distributors may offer discounts of base prices that are authorized by this section when such discounts are nondiscriminatory. For purposes of this title, discounts will be deemed to be nondiscriminatory when:

(a) Offered to all licensees on the same terms;

(b) The scheme upon which the discount is based is in writing and submitted to the commission at least forty-eight hours prior to being offered;

(c) The discount applies only to a single sales transaction and does not relate to a level of sales made over a period of time; and

(d) The level of a discount is based only upon any of the following criteria:

(i) The amount of product sold or the dollar value of the sale;

(ii) Whether the purchaser makes full payment in cash at time of sale;

(iii) Whether the purchaser makes final payment for a transaction within a predetermined time period for sales made under "trade account" terms; and

(iv) Any other structure or terms, subject to preapproval by the director. The manufacturer shall pay for the approval process and any additional requirements necessary to assure compliance with this section.

Can manufacturers or distributors elect to limit their sales to a specific market level?

(4) A licensed manufacturer or distributor may elect to limit sales of products and services to licensees at any marketing level. For purposes of this section, marketing levels are defined as manufacturer, distributor, and operator. If a manufacturer or distributor elects to make sales to any licensee at a marketing level, sales must be made to all licensees at the same level: *Provided*, That transactions between a manufacturer and distributor, when both are owned and operated by the same persons, are considered internal to that business. For purposes of this section, internal transactions are not considered sales at a different marketing level. All other restrictions of this section apply to such sales. For example:

(a) A licensed manufacturer may elect to sell or provide products and services only to distributors; or

(b) A licensed distributor may elect to sell or provide products and services only to operators.

Can manufacturers or distributors establish minimum purchase requirements?

(5) Manufacturers or distributors shall not set minimum purchase requirements for any product or service, except as authorized below:

(a) Minimum purchase requirements are not allowed for purchases made under prepaid or cash on delivery (COD) terms: *Provided*, That manufacturers may establish and charge a reasonable fee for services to handle an order for products or services below a specified level, if such policy is in writing and provided to distributors prior to accepting orders;

(b) Minimum purchase restrictions may be set for transactions between manufacturers and distributors that are conducted using trade account terms, as authorized by WAC 230-12-340;

(c) Discounts may be set based upon a minimum purchase amount as authorized by subsection (3) of this section; and

(d) Minimum purchase restrictions may be placed on products being offered for a bargain or "sale" price if a

bargain or "sale" price is established for any and all levels of purchases under such terms.

Are there restrictions on the sale of nongambling products or services sold to licensees by manufacturers or distributors?

(6) A manufacturer or distributor shall not grant licensees, nor shall such licensees accept, more favorable prices, credit terms, or other arrangements than those extended to nonlicensed persons purchasing identical or similar nongambling goods or services. The price of nongambling goods or services sold to licensees shall be in conformity with the open market price in the locality where sold. The terms of such sales shall not exceed those normally granted in accordance with the customary business practice of the particular trade in the locality where such sales are made.

Do the restrictions set forth in this section apply to class III transactions?

(7) This section shall not apply to transactions conducted with tribal governments operating class III casinos under tribal/state compacts or with management companies operating such casinos on the behalf of tribal governments.

WSR 98-03-076

PROPOSED RULES

INSURANCE COMMISSIONER'S OFFICE

[Filed January 21, 1998, 10:54 a.m.]

Continuance of WSR 98-02-062.

Preproposal statement of inquiry was filed as WSR 96-24-108.

Title of Rule: Accelerated life insurance benefits.

Purpose: Continuation of adoption date to February 6, 1998.

Other Identifying Information: Insurance Commissioner Matter No. R 96-13.

Date of Intended Adoption: February 6, 1998.

January 21, 1998

Greg J. Scully

Chief Deputy Commissioner

WSR 98-03-080

PROPOSED RULES

DEPARTMENT OF

SOCIAL AND HEALTH SERVICES

(Economic Services Administration)

[Filed January 21, 1998, 11:10 a.m.]

Supplemental Notice to WSR 97-23-085.

Exempt from preproposal statement of inquiry under RCW 34.05.310(4).

Title of Rule: WAC 388-310-1300 Community jobs wage subsidy program.

Purpose: This new rule sets eligibility and performance standards for a new legislatively mandated program for certain temporary assistance to needy families participants. The change for this Supplemental CR-102 adds a new subsection (1)(c), requiring a cash grant sufficient to pay the

community jobs wage and adds another new subsection (8), a 90-day redetermination for participants in a community jobs position.

Statutory Authority for Adoption: RCW 74.08.090, 74.04.050.

Statute Being Implemented: RCW 74.08A.320.

Summary: The change to the original CR-102, adds a new subsection (1)(c) requiring a cash grant sufficient to pay the community jobs wage and a new subsection (8), a 90-day redetermination for participants in a community jobs position.

Reasons Supporting Proposal: Expresses intent of federal and state welfare reform legislation.

Name of Agency Personnel Responsible for Drafting, Implementation and Enforcement: Linda Rae Alvarado, Lacey Government Center, Olympia, WA 98504-5480, (360) 413-3244.

Name of Proponent: Department of Social and Health Services, governmental.

Rule is not necessitated by federal law, federal or state court decision.

Explanation of Rule, its Purpose, and Anticipated Effects: This rule sets eligibility and performance standards for a new legislatively mandated program for certain temporary assistance to needy families (TANF) participants. This Supplemental CR-102 adds a new subsection (1)(c) requiring a cash grant sufficient to pay the community jobs wage and a new subsection (8), a 90-day redetermination for participants in a community jobs position.

Proposal does not change existing rules.

No small business economic impact statement has been prepared under chapter 19.85 RCW. This rule concerns only client eligibility.

RCW 34.05.328 does not apply to this rule adoption. RCW 34.05.328 (5)(b)(vii) exempts the Department of Social and Health Services rules that apply to client medical or financial eligibility.

Hearing Location: Lacey Government Center (behind Tokyo O'Bento Restaurant), 1009 College Street S.E., Room 104-B, Lacey, WA 98503, on February 24, 1998, at 10:00 a.m.

Assistance for Persons with Disabilities: Contact Paige Wall by February 13, 1998, phone (360) 902-7540, TTY (360) 902-8324, e-mail pwall@dshs.wa.gov.

Submit Written Comments to and Identify WAC Numbers: Paige Wall, Acting Rules Coordinator, Rules and Policies Assistance Unit, P.O. Box 45850, Olympia, WA 98504-5850, FAX (360) 902-8292, by February 24, 1998.

Date of Intended Adoption: No sooner than February 25, 1998.

January 15, 1998

Merry A. Kogut, Manager
Rules and Policies Assistance Unit

NEW SECTION

WAC 388-310-1300 Community jobs wage subsidy program. The community jobs wage subsidy program is to allow participants to gain skills and experience in a temporary position which helps them move into unsubsidized employment as quickly as possible. In all instances, the term 'department' refers to the department of social and

health services (DSHS). The state department of community, trade and economic development (DCTED) administers the community jobs program. DCTED selects community jobs contractors (CJC) by using a competitive "requests for proposal" (RFP) process. DCTED, based upon the successful proposals, develops contracts specific to each selected community jobs contractor.

(1) WorkFirst case managers may assign a TANF/SFA participant to a community jobs (CJ) position when:

(a) The participant has an unsuccessful job search;

(b) The case manager determines the participant needs a supportive work environment to help them become more employable; and

(c) Participants monthly cash grant is sufficient to pay their community jobs wages for twenty hours per week at the federal or state minimum wage, whichever is greater.

(2) The department uses a participant's grant to provide a wage subsidy to the community jobs contractor.

(3) The CJC's develop and manage the CJ positions, pay the wages and provide support services.

(4) Once hired, the department will authorize the participant's wage subsidy for no longer than nine TANF/SFA payment months in that specific position.

(5) While in a subsidized job, CJC's may not hire participants into a community jobs position to do work related to religious, electoral or partisan political activities.

(6) Community jobs participants are employees of the community jobs contractor(s).

(7) Wages from the community jobs wage subsidy program are fully attributable to diverted public assistance funds. These wages are not "earned income" for purposes of eligibility for the WorkFirst fifty percent-earned income disregard, nor for determining income eligibility for food stamps.

(8) The department shall review the appropriateness for continued participation in a community jobs position every ninety days during the nine-month placement. This review shall include:

(a) A review of any earned or unearned income received by the participant or other members of the assistance unit; and

(b) A review of continued TANF/SFA eligibility.

(9) Community jobs participants work an average of twenty hours per week at a wage at least equal to the state or federal minimum wage, whichever is higher. CJ participants are eligible for a twenty percent "work expense" income disregard applied to their gross pay for DSHS purposes when determining TANF/SFA residual grant amounts. In no instance may the wages earned in a community jobs position exceed the participant's authorized TANF/SFA monthly grant amount.

(10) Community jobs participants earn sick leave and annual leave according to the rates designated for part-time employment by their employer - community jobs contractor. If the employer has no guidelines, participants earn sick leave at a rate of four hours each month and vacation leave at a rate of four hours each month. If they exhaust all leave and miss work time, a community jobs participant may make up the missed time. One way to make up missed time is to work extra hours, not to exceed forty hours per week, during the same or immediately succeeding pay period. There is no cash-out value to the participant for accrued sick and annual

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leave hours remaining at the end of the community jobs assignment.

(11) If the CJ participant earns less than the amount of the authorized TANF/SFA grant, DSHS sends the participant a supplemental payment. A CJ participant's monthly wages and supplemental payment will equal the participant's authorized TANF/SFA grant amount.

(12) Only those employers who take actions that enable a participant to move into other unsubsidized employment will be considered for additional subsidized employees.

(13) The following categories of employers will be considered for employment sites for participants in the community jobs wage subsidy program:

(a) Federal, state or local governmental agencies, and tribal governments; and

(b) Private and tribal nonprofit businesses, charities, and educational institutions.

WSR 98-03-081
PROPOSED RULES
FRUIT COMMISSION

[Filed January 21, 1998, 11:16 a.m.]

Original Notice.

Preproposal statement of inquiry was filed as WSR 97-24-112.

Title of Rule: WAC 224-12-090 Bartlett pear assessment rate.

Purpose: Increase the maximum allowable assessment rate on fresh Bartlett pears from \$11.36 per 2000 pounds (\$.25 per standard 44 pound box) to \$18.00 per 2000 pounds.

Statutory Authority for Adoption: Chapter 15.28 RCW, chapter 303, Laws of 1997.

Statute Being Implemented: Chapter 15.28 RCW.

Summary: The rule change, if approved by a majority of the affected producers voting in a referendum, will increase the maximum assessment on fresh Bartlett pears from \$11.36 per 2000 pounds (\$.25 per standard 44 pound box) to \$18.00 per 2000 pounds.

Reasons Supporting Proposal: The assessment rate increase is necessary to maintain and expand markets for fresh Bartlett pears grown in Washington.

Name of Agency Personnel Responsible for Drafting, Implementation and Enforcement: Kenneth F. Severn, 105 South 18th Street, Yakima, WA, (509) 453-4837.

Name of Proponent: Washington State Fruit Commission, governmental.

Agency Comments or Recommendations, if any, as to Statutory Language, Implementation, Enforcement, and Fiscal Matters: Adoption of the rule is subject to approval by a majority of the affected producers voting in a referendum conducted by the Department of Agriculture.

Rule is not necessitated by federal law, federal or state court decision.

Explanation of Rule, its Purpose, and Anticipated Effects: The Washington State Fruit Commission collects assessments on soft tree fruits, including Bartlett pears, to fund advertising and promotion programs. The cost of conducting the programs for fresh pears has increased substantially since the current assessment rate went into

effect over ten years ago. The assessment rate increase will increase funding for programs necessary to maintain and expand markets for fresh Bartlett pears grown in Washington.

Proposal Changes the Following Existing Rules: The proposed rule change will increase the maximum allowable assessment rate on fresh Bartlett pears from \$11.36 per 2000 pounds (\$.25 per standard 44 pound box) to \$18.00 per 2000 pounds.

No small business economic impact statement has been prepared under chapter 19.85 RCW. The rule will only affect fresh Bartlett pear growers in Washington state and will only become effective with the approval of a majority of fresh Bartlett pear growers voting in a referendum. There will be no disproportionate cost to small businesses because producers of Bartlett pears in Washington state are considered small businesses (less than fifty full-time, year-round employees). The rule will not increase cost in equipment, supplies, labor or administrative expenses. Cost to the producers is a per unit fee, established annually by an advisory committee based on anticipated production, condition of the markets and estimated cost of the programs. All cost as well as economic benefit to the producer will be in proportion to the level of production of each producer.

Section 201, chapter 403, Laws of 1995, does not apply to this rule adoption. Washington State Fruit Commission is not a listed agency in section 201.

Hearing Location: Washington Fruit Commission, W. L. Hansen Building, 105 South 18th Street, Yakima, WA, on February 24, 1998, at 10:00 a.m.; and at the Washington Apple Commission, General Meeting Room, 2900 Euclid Avenue, Wenatchee, WA, on February 25, 1998, at 10:00 a.m.

Assistance for Persons with Disabilities: Contact Cathy Jensen by February 23, 1998, TDD (360) 902-1996, or (360) 902-1976.

Submit Written Comments to: Ken Severn, President, Washington State Fruit Commission, 105 South 18th Street #205, Yakima, WA 98901-2149, FAX (509) 453-4880, by February 25, 1998.

Date of Intended Adoption: April 1, 1998.

January 21, 1998
Kenneth F. Severn
President

AMENDATORY SECTION (Amending Order 4, Resolution 4, filed 7/29/81)

WAC 224-12-090 Bartlett pear assessment rate. As provided for by RCW 15.28.160 and 15.28.180, there is hereby levied on Bartlett pears, an assessment of up to a maximum of ~~((twenty five cents per standard box equivalent (approximately forty four pounds)))~~ eighteen dollars per two thousand pounds of Bartlett pears shipped fresh, and an assessment of six dollars for each two thousand pounds of Bartlett pears delivered to processors.

WSR 98-03-082
PROPOSED RULES
DEPARTMENT OF
SOCIAL AND HEALTH SERVICES
 (Children's Administration)
 [Filed January 21, 1998, 11:19 a.m.]

Original Notice.

Preproposal statement of inquiry was filed as WSR 97-24-106.

Title of Rule: WAC 388-15-030 Rights of applicant for service.

Purpose: To repeal an obsolete and duplicative rule. The generic rule for identifying rights of applicants for services, to request fair hearings, to provide adequate notice, and other matters related to the social services block grant is proposed for repeal. Where such matters are necessary and required, individual programs have adopted rules that are program specific to accomplish the same goals. Such matters are also covered under chapter 34.05 RCW, Administrative Procedure Act, and chapter 388-08 WAC.

Statutory Authority for Adoption: RCW 74.08.090.

Statute Being Implemented: Section 209, chapter 409, Laws of 1997 (E2SHB 1032).

Summary: To repeal obsolete and duplicative rules to comply with Governor Locke's Executive Order 97-02 on regulatory improvement.

Reasons Supporting Proposal: The issuance will repeal a redundant, unused rule, while placing emphasis on existing rules for individual programs.

Name of Agency Personnel Responsible for Drafting, Implementation and Enforcement: Art Cantrall, P.O. Box 45710, Olympia, WA 98504-5710, (360) 902-7956.

Name of Proponent: Department of Social and Health Services, governmental.

Rule is not necessitated by federal law, federal or state court decision.

Explanation of Rule, its Purpose, and Anticipated Effects: To repeal obsolete and duplicative rule. The generic rule for identifying rights of applicants for services, to request fair hearings, to provide adequate notice, and other matters related to the social services block grant is proposed for repeal. Where such matters are necessary and required, individual programs have adopted rules that are program specific to accomplish the same goals. Such matters are also covered under the state Administrative Procedure Act and chapter 388-08 WAC.

Proposal Changes the Following Existing Rules: Repeals WAC 388-15-030 Rights of applicant for services.

No small business economic impact statement has been prepared under chapter 19.85 RCW. This repeal action does not affect small businesses.

RCW 34.05.328 does not apply to this rule adoption. The repeal action is exempt under RCW 34.05.328 because it will not change the way the department does business or impacts the public.

Hearing Location: Lacey Government Center (behind Tokyo Bento Restaurant), 1009 College Street S.E., Room 104-B, Lacey, WA 98503, on February 24, 1998, at 10:00 a.m.

Assistance for Persons with Disabilities: Contact Paige Wall by February 13, 1998, phone (360) 902-7540, TTY (360) 902-8324, e-mail pwall@dshs.wa.gov.

Submit Written Comments to and Identify WAC Numbers: Paige Wall, Rules Coordinator, Rules and Policies Assistance Unit, P.O. Box 45850, Olympia, WA 98504-5850, FAX (360) 902-8292, by February 24, 1998.

Date of Intended Adoption: No sooner than February 25, 1998.

January 20, 1998
 Edith M. Rice, Chief
 Office of Legal Affairs

REPEALER

The following section of the Washington Administrative Code is repealed:

WAC 388-15-030 Rights of applicant for services.

WSR 98-03-083
PROPOSED RULES
DEPARTMENT OF
SOCIAL AND HEALTH SERVICES
 (Economic Services Administration)
 [Filed January 21, 1998, 11:27 a.m.]

Original Notice.

Preproposal statement of inquiry was filed as WSR 97-23-080.

Title of Rule: Amendments to WAC 388-290-010 Subsidized child care—Purpose, 388-290-020 Subsidized child care—Definitions, 388-290-025 Subsidy units and copayments, 388-290-035 Providers eligible for payment under the subsidized child care program, 388-290-050 Eligible children and consumers under the subsidized child care program, and 388-290-090 Income eligibility and copayments.

Purpose: To clarify and improve the operation of the working connections child care (WCCC) program for clients and field staff.

Statutory Authority for Adoption: RCW 74.04.050, 74.13.0903, and PL 104-193, Sections 407 and 605.

Statute Being Implemented: RCW 74.04.050, 74.13.0903, and PL 104-193, Sections 407 and 605.

Summary: These revisions to chapter 388-290 WAC are necessary to clarify and improve the operations of working connections child care (WCCC) for clients and field staff. Revisions include (but are not limited to) exempted income types, and expanded definition of "consumer" in WAC 388-290-020, clarifications to some section titles, and syntax corrections.

Reasons Supporting Proposal: State legislation.

Name of Agency Personnel Responsible for Drafting, Implementation and Enforcement: Roger Long, Lacey Government Center, (360) 413-3256.

Name of Proponent: Department of Social and Health Services, governmental.

Rule is not necessitated by federal law, federal or state court decision.

Explanation of Rule, its Purpose, and Anticipated Effects: These amendments to the existing rules will clarify and streamline eligibility rules for the WCCC program to be more consistent with TANF and food stamp eligibility rules.

Some syntax changes are also proposed. See also Purpose and Summary above.

Proposal Changes the Following Existing Rules: Amends and clarifies certain sections of chapter 388-290 WAC. See also Explanation of Rule, Purpose, and Summary above.

No small business economic impact statement has been prepared under chapter 19.85 RCW. These rules do not impact small business.

RCW 34.05.328 does not apply to this rule adoption. RCW 34.05.328 (5)(b)(vii) exempts the Department of Social and Health Services rules that apply to client medical or financial eligibility.

Hearing Location: Lacey Government Center (behind Tokyo O'Bento Restaurant), 1009 College Street S.E., Room 104-B, Lacey, WA 98503, on February 24, 1998, at 10:00 a.m.

Assistance for Persons with Disabilities: Contact Paige Wall by February 13, 1998, phone (360) 902-7540, TTY (360) 902-8324, e-mail pwall@dshs.wa.gov.

Submit Written Comments to and Identify WAC Numbers: Paige Wall, Acting Rules Coordinator, Rules and Policies Assistance Unit, P.O. Box 45850, Olympia, WA 98504-5850, FAX (360) 902-8292, by February 24, 1998.

Date of Intended Adoption: No sooner than February 25, 1998.

January 20, 1998
Edith M. Rice, Chief
Office of Legal Affairs
for Merry Kogut, Manager
Rules and Policies Assistance Unit

AMENDATORY SECTION (Amending WSR 97-20-130, filed 10/1/97, effective 11/1/97)

WAC 388-290-010 Subsidized child care—Purpose and income limit. The purpose of this program is to provide child care services necessary to assist families with dependent children to become or remain employed. The department may provide subsidized child care services to families with gross incomes at or below one hundred seventy-five percent of the Federal Poverty Level (FPL) adjusted for family size.

AMENDATORY SECTION (Amending WSR 97-20-130, filed 10/1/97, effective 11/1/97)

WAC 388-290-020 Subsidized child care—Definitions. Except as specified in this chapter, terms used under chapter 388-290 WAC shall have the same meaning as in the WorkFirst and TANF programs.

"**Able**" means an adult physically ((~~or~~)), mentally, and emotionally capable of caring for a child in a responsible manner.

"**Adjusted earned income**" means the gross earned income minus the average payroll and income tax paid at that income level.

"**Available**" means an adult able to provide care due to not participating in an approved WorkFirst activity and/or employment during the time child care is needed.

"**Consumer,**" for the purposes of this chapter, means:
(1) A child's parent; or ((~~guardian who~~))

(2) Relative in WAC 388-215-1080 (Living in the home of a relative of specified degree—Nonparental relative defined), who:

(a) Has parental control; and

(b) Applies for, or receives subsidized child care services funded by the department.

"**In-home/relative provider**" means an unlicensed child care provider who is:

(1) One of the following adult relatives providing care in either the child's or relative's home:

(a) An adult sibling living outside the child's home; or

(b) A grandparent, aunt, uncle, first cousin, or great-grandparent, great-aunt, or great-uncle; and

(c) Not the child's biological, adoptive, or stepmother or stepfather.

(2) An adult friend or neighbor providing care in the child's own home; or

(3) An adult extended tribal family member as defined under chapter 74.15 RCW (Care of children, expectant mothers, developmentally disabled) who is providing care.

"**Parent**" for the purposes of this chapter, means a parent by blood, marriage, or adoption, or a legal guardian).

"**Subsidy unit**" for the purposes of this chapter, means child care assistance unit.

"**Total income,**" for the purposes of this chapter, means the sum of adjusted earned income((~~self-employment income,~~)) and unearned income.

Reviser's note: RCW 34.05.395 requires the use of underlining and deletion marks to indicate amendments to existing rules. The rule published above varies from its predecessor in certain respects not indicated by the use of these markings.

AMENDATORY SECTION (Amending WSR 97-20-130, filed 10/1/97, effective 11/1/97)

WAC 388-290-025 Subsidy units and copayments.

(1) Only individuals residing in the same household can be included in subsidy unit size.

(2) The minimum copayment is assessed for minor parents who are:

(a) Receiving TANF and living independently;

(b) The TANF head of household;

(c) Part of another TANF grant.

(3) The department can assess copayments above the minimum for:

(a) Related adults, other than spouses, and their respective child(ren). These are each separate subsidy units.

(b) Unmarried parents with a mutual child(ren). This is a single subsidy unit.

(c) Married parents with or without a mutual child(ren). This is a single subsidy unit.

(d) Married or unmarried parents and their mutual and nonmutual children, if there is at least one mutual child. This is a single subsidy unit.

((~~d~~)) (e) Unmarried adults without a mutual child(ren). These are each separate subsidy units.

((~~e~~)) (f) A non-TANF minor parent living independently. This is a single subsidy unit.

((~~f~~)) (g) A child or minor parent living with a legally nonresponsible caretaker. This is a separate subsidy unit.

(4) Eligibility for subsidized child care ends when the consumer fails to pay, or arrange payment for, required copayment fees.

(5) The department reinstates the subsidy unit's eligibility for subsidized child care when back copayment fees are paid or satisfactory arrangements are made to make full payments.

AMENDATORY SECTION (Amending WSR 97-20-130, filed 10/1/97, effective 11/1/97)

WAC 388-290-035 Providers eligible for payment under the subsidized child care program. (1) A licensed child care provider must be licensed as required by chapter 74.15 RCW and chapters 388-73, 388-155 (Minimum licensing requirements for family child day care homes), ~~((and))~~ or 388-150 WAC (Minimum licensing requirements for child day care centers).

(2) Child care providers exempt from licensing but who must be certified by the department include:

- (a) Tribal child care facilities meeting the requirements of tribal law;
 - (b) Child care facilities on a military installation;
 - (c) Child care facilities operated on public school property by a school district.
- (3) In-home/relative providers are exempt from licensing and certification, but must be registered with the department and meet the requirements of WAC 388-15-170.

AMENDATORY SECTION (Amending WSR 97-20-130, filed 10/1/97, effective 11/1/97)

WAC 388-290-050 Eligible children and consumers under the subsidized child care program. (1) To be eligible for subsidized child care, the consumer must:

- (a) Be a caretaker of one or more children; and
 - (b) Not care for their own child(ren) during the time child care is authorized, if the consumer is an employee of the child care facility to which the department has authorized payment.
- (2) The department may authorize subsidized child care for a child between thirteen and nineteen years old if the child is:
- (a) Under court supervision;
 - (b) Physically, mentally or emotionally incapable of self-care. This must be verified by a licensed medical practitioner or masters-level or above mental health professional.

(3) The department may authorize special needs child care for children under thirteen years old if the conditions in subsection (2)(b) of this section are met.

(4) TANF consumers in sanction are not eligible for subsidized child care unless child care is necessary to:

- (a) Obtain or maintain employment;
- (b) Enroll in, or maintain enrollment in, an approved WorkFirst activity; or
- (c) Remove the sanction.

~~((4))~~ (5) The child(ren) for whom the consumer applies must be a citizen or legally residing in the country.

AMENDATORY SECTION (Amending WSR 97-20-130, filed 10/1/97, effective 11/1/97)

WAC 388-290-090 Subsidized child care—Income eligibility ~~((and))~~, copayments rates, and when to calculate copayments. (1) The department determines income eligibility for subsidized child care as follows:

(a) By using the best available ~~((documentation))~~ evidence of the subsidy unit's current and expected income, except for income types in WAC 388-290-090 (1)(c);

(b) By counting:

(i) The military family's housing and food allowance as adjusted earned income;

(ii) A consumer's in-kind income as adjusted earned income.

(c) By exempting:

(i) Income types in WAC 388-218-1200 (Exempt income types), except for SSI income, which is counted, WAC 388-218-1210 (Exempt and disregarded income—educational assistance), 388-218-1220 (Disregarded income—Native American benefits), and 388-218-1230(2) through (7) (Disregarded income types);

(ii) The earned income of a child, unless otherwise indicated in WAC 388-290-025(3); and

(iii) The TANF grant for the first three consecutive calendar months after the TANF consumer starts a new job. The first calendar month is the month in which the consumer starts employment.

(2) All consumers contribute to the subsidized child care cost by making monthly copayments, as follows:

(a) Ten dollars for subsidy units with total income at or below seventy-four percent of the Federal Poverty Level (FPL);

(b) Twenty dollars for subsidy unit with total income above seventy-four percent and up to one hundred percent of the FPL;

(c) Subsidy units with total income over one hundred percent of the FPL pay the greater of:

(i) Twenty dollars; or

(ii) Forty-seven percent of total income exceeding one hundred percent of the FPL.

(3) The department ~~((shall))~~ calculates copayments:

(a) At the time of the initial eligibility determination or authorization;

(b) At least every six months, starting from the first month of eligibility;

(c) When monthly income increases one hundred dollars or more;

(d) When monthly income decreases, except as indicated in subsection (4) of this section; or

(e) When subsidy unit size ~~((increases or decreases))~~ changes.

(4) A consumer's copayment cannot decrease because of a reduction in the TANF grant due to a sanction.

(5) The department authorizes subsidized child care for up to six months at a time.

~~((5))~~ The military family's housing and food allowance is counted as unearned income for the purposes of subsidized child care.)

WSR 98-03-084
PROPOSED RULES
DEPARTMENT OF
SOCIAL AND HEALTH SERVICES
(Economic Services Administration)
[Filed January 21, 1998, 11:29 a.m.]

January 20, 1998
Edith M. Rice, Chief
Office of Legal Affairs
for Merry Kogut, Manager
Rules and Policies Assistance Unit

PROPOSED

Original Notice.

Preproposal statement of inquiry was filed as WSR 97-12-080.

Title of Rule: Repeals WAC 388-218-1700 Prospective eligibility, 388-218-1800 Treatment of newly acquired nonexempt income, and 388-218-1940 Determining grant amount—Recipients.

Purpose: Repeals WAC 388-218-1700, 388-218-1800, and 388-218-1940.

Statutory Authority for Adoption: RCW 74.08.090, chapter 58, Laws of 1997.

Statute Being Implemented: Chapter 58, Laws of 1997.

Summary: Repeals WAC 388-218-1700, 388-218-1800, and 388-218-1940.

Reasons Supporting Proposal: These rules must be repealed because they conflict with newly adopted WorkFirst TANF rules contained in WAC 388-218-1710, 388-218-1810, 388-218-1820, 388-218-1830, 388-218-1900, 388-218-1910, 388-218-1930, 388-245-1510, and chapter 388-270 WAC.

Name of Agency Personnel Responsible for Drafting, Implementation and Enforcement: Cindy Anderson, WorkFirst Division, Program Support Unit, (360) 413-3095.

Name of Proponent: Department of Social and Health Services, governmental.

Rule is not necessitated by federal law, federal or state court decision.

Explanation of Rule, its Purpose, and Anticipated Effects: Repeals WAC 388-218-1700, 388-218-1800, and 388-218-1940 as these rules conflict with newly adopted WorkFirst TANF rules contained in WAC 388-218-1710, 388-218-1810, 388-218-1820, 388-218-1830, 388-218-1900, 388-218-1910, 388-218-1920, 388-218-1930, 388-245-1510, and chapter 388-270 WAC.

Proposal does not change existing rules. Repeals WAC 388-218-1700, 388-218-1800, and 388-218-1940.

No small business economic impact statement has been prepared under chapter 19.85 RCW. Does not have an economic impact on small businesses.

RCW 34.05.328 does not apply to this rule adoption. RCW 34.05.328 (5)(b)(vii) exempts the Department of Social and Health Services rules that apply to client medical or financial eligibility.

Hearing Location: Lacey Government Center (behind Tokyo Bento Restaurant), 1009 College Street S.E., Room 104-B, Lacey, WA 98503, on February 24, 1998, at 10:00 a.m.

Assistance for Persons with Disabilities: Contact Paige Wall by February 13, 1998, phone (360) 902-7540, TTY (360) 902-8324, e-mail pwall@dshs.wa.gov.

Submit Written Comments to and Identify WAC Numbers: Paige Wall, Acting Rules Coordinator, Rules and Policies Assistance Unit, P.O. Box 45850, Olympia, WA 98504-5850, FAX (360) 902-8292, by February 24, 1998.

Date of Intended Adoption: No sooner than February 25, 1998.

Proposed

REPEALER

The following section of the Washington Administrative Code is repealed:

WAC 388-218-1700	Prospective eligibility.
WAC 388-218-1800	Treatment of newly acquired nonexempt income.
WAC 388-218-1940	Determining grant amount—Recipients.

WSR 98-03-085
PROPOSED RULES
DEPARTMENT OF
SOCIAL AND HEALTH SERVICES
(Medical Assistance Administration)
(Aging and Adult Services Administration)
[Filed January 21, 1998, 11:32 a.m.]

Original Notice.

Preproposal statement of inquiry was filed as WSR 96-11-105.

Title of Rule: WAC 388-513-1380 and new chapter 388-79 WAC, Guardianship fees for clients of the department.

Purpose: Rules will implement RCW 43.20B.460, 11.92.180, and Section 1924 (42 U.S.C. 1396r-5).

Statutory Authority for Adoption: RCW 74.04.050, 74.04.057, 74.08.090, 74.09.500, 43.20B.460, and 11.92.180.

Statute Being Implemented: Section 1924 (42 U.S.C. 1396r-5), RCW 43.20B.460 and 11.92.180.

Summary: The rules set the amount of fees allowable for a guardianship to charge department clients. Because there are programs other than the nursing home or institutional program affected, a new chapter 388-79 WAC is created to be used as a reference by each program. Adopts federal standard for community spouse needs allowance. All other changes are to improve readability and do not change intent of policy.

Reasons Supporting Proposal: Implements federal regulation and state legislation. The aforementioned RCWs require the Department of Social and Health Services to make this rule.

Name of Agency Personnel Responsible for Drafting and Implementation: E. A. (Hank) Hibbard, Aging and Adult Services Administration Headquarters, Lacey, (360) 493-2543; and Enforcement: To the extent this will be enforced it will be enforced by the financial section in local HCS offices.

Name of Proponent: Department of Social and Health Services, governmental.

Rule is not necessitated by federal law, federal or state court decision.

Explanation of Rule, its Purpose, and Anticipated Effects: WAC 388-513-1380 is amended and chapter 388-79 WAC is added to set a reasonable fee for guardians of

department clients. This will comply with the directive of the legislature to do this. It is anticipated that this will allow the present system of central review to devolve upon the local offices, and save money.

They set amounts that the court can order for guardianship fees for clients of the department. These rules will also satisfy the Health Care Financing Authority (HCFA) and remove the state from the compliance list.

Proposal Changes the Following Existing Rules: See above.

A small business economic impact statement has been prepared under chapter 19.85 RCW.

Small Business Economic Impact Statement

Guardianship Fees and Participation

Subject: Deduction of guardianship and associated attorney fees from income prior to participation.

Background: The rule will be effective in 1998, but the total impact will be phased in over three years as guardianship orders are renewed.

The Medical Assistance Administration (MAA) and Aging and Adult Services (AASA) of the Department of Social and Health Services (DSHS) are proposing new rules related to guardianship fees and costs and related attorney fees for certain DSHS clients who are subjects of guardianships. The rules are proposed under the authority of RCW 11.92.180 and 43.20B.460, and to comply with federal Medicaid program requirements.

This statement has been prepared for consideration with the notice of proposed rule making under the Administrative Procedure Act, chapter 34.05 RCW, and is intended to comply with the Regulatory Fairness Act, chapter 19.85 RCW.

Summary of Rules Change: The proposed rule creates chapter 388-79 WAC, amends WAC 388-513-1308 and other sections to make reference to chapter 388-79 WAC or WAC 388-513-1308. The rule sets allowable fees. It would allow fees for establishing guardianships and for annual reports.

Presently fees are allowed as a deduction from participation as an exception to policy. These rules would make that process unnecessary.

Affected Businesses: The standard industrial codes for affected businesses are:

8111 Legal Services

8399 Social Services, unclassified (guardians)

Costs of Compliance: Potential costs to the affected businesses will be in the form of reduced revenue resulting from control of the fees allowed. The fee restrictions apply only to those fees charged to a person who has been determined eligible as a client of the Department of Social and Health Services; who is residing in a nursing facility or in a residential or home setting and who is required to contribute toward their cost of care. This proposed rule does not regulate or limit the fees charged by guardians or the related attorneys fees for a person who is not a Department of Social and Health Services client.

The proposed amendments do not impose additional reporting, recordkeeping or any other compliance requirements. There will be few if any costs of compliance with the new law and rules. Costs presently incurred by guardians may be reduced as follows:

- The rule will allow the guardian to deal with only the local Department of Social and Health Services office, and the clients contribution towards the cost of care will be figured from the court order rather than by an exception to policy. This should speed turnaround time, and decrease the problem of having every case decided at the Department of Social and Health Services headquarters level;
- There should be no increased costs of equipment, supplies, or labor, and the costs per employee should be stable or go down.

Real Impact: Based on figures developed from past exceptions to policy requesting deduction of fees from participation, the department estimates a potential loss of revenue to the industry. This loss may increase each year for three years and then stabilize.

The Department of Social and Health Services has been told in discussions and meetings that all of the guardianship firms have some Department of Social and Health Services cases. Some firms have as many as seventy to eighty percent of their clients receiving Department of Social and Health Services services.

The department has included the impacted small businesses in the review of these rule amendments and notification of the public hearing. The impacted providers have been given an opportunity to examine options and make recommendations to the department concerning delivery of services to this client population. The Department of Social and Health Services has received comments from Washington State Association of Professional Guardians. Department personnel have held discussions with several individual guardians.

These discussions with members of the guardianship industry indicate that there is a widespread feeling that a fee of \$80 per month as initially proposed is too low. The industry points out that many other states allow from \$125 to \$150 per month as a presumptive fee.

Reviewing the material developed the rates unit of AASA had determined that a fee of \$175 per month should be adequate to attract vendors to the Medicaid market.

The Department of Social and Health Services has raised the maximum basic fee to \$175 per month in the proposed rule (\$2,100 per year) to be closer to the present cost structure and less harmful to those small businesses that rely on the Department of Social and Health Services clients for a majority of their business. The savings from new cases would meet the budget goals. Existing cases will come up for review over the next three to four years and the savings should grow as fees are set within the new standards.

Mitigation Factors: There should be faster cash flow to the guardians because court orders will not have to be sent to the Department of Social and Health Services headquarters for review. There should be more certainty as to expectations of both the department and the providers. Little can be done to mitigate the loss of revenue; except raise the allowed fee, which has been done. Providers have had time to adapt, since the legislation was enacted in 1994, find new sources of revenue, and the total effect of the rule will not be felt for three years.

Increasing the proposed maximum fees to \$175 per month from earlier proposals of \$80 and \$90 (not including related attorney fees) will help mitigate the impact.

Conclusion: The department must implement RCW 11.92.180 and 43.20B.460. These amendments will have an economic impact on the listed businesses in the form of reduced revenue. The department has undertaken to mitigate the impact as stated above. Any changes or alternatives to the rule amendments in an attempt to further reduce the economic impact upon businesses would not result in meeting the necessary budget reductions imposed by the legislature.

Funding for guardianships as a deduction from the Department of Social and Health Services clients contribution towards the costs of care is decreased in the present biennial state budget.

A copy of the statement may be obtained by writing to E. A. (Hank) Hibbard, Aging and Adult Services Administration, P.O. Box 45600, Olympia, WA 98504-5600, phone (360) 493-2543, or FAX (360) 438-8633, attention E. A. (Hank) Hibbard.

RCW 34.05.328 does not apply to this rule adoption. Rules establish a payment rate and is not solely a condition of eligibility. Because the compensation level and not the right to receive services is impacted the statute applies. A cost benefit analysis may be obtained by contacting Hank Hibbard at the above address.

Hearing Location: Lacey Government Center (behind Tokyo Bento Restaurant), 1009 College Street S.E., Room 104-B, Lacey, WA 98503, on February 24, 1998, at 10:00 a.m.

Assistance for Persons with Disabilities: Contact Paige Wall by February 13, 1998, phone (360) 902-7540, TTY (360) 902-8324, e-mail pwall@dshs.wa.gov.

Submit Written Comments to and Identify WAC Numbers: Paige Wall, Acting Rules coordinator, Rules and Policies Assistance Unit, P.O. Box 45850, Olympia, WA 98504-5850, FAX (360) 902-8292, by February 24, 1998.

Date of Intended Adoption: No sooner than February 25, 1998.

January 20, 1998
Edith M. Rice, Chief
Office of Legal Affairs

Chapter 388-79 WAC GUARDIANSHIP FEES FOR CLIENTS OF THE DEPARTMENT

NEW SECTION

WAC 388-79-010 Applicability and reason for the chapter. It is the intent of this WAC to carry out RCW 43.20B.460, and that part of RCW 11.92.180 which allows the department to set maximum fees and administrative costs allowed by courts in guardianships for a department of social and health services (DSHS) client residing in a nursing facility or in a residential or home setting who is required by DSHS to contribute a portion of their income towards the cost of residential or supportive services.

NEW SECTION

WAC 388-79-020 Definitions. "Administrative costs" means necessary costs paid by the guardian including attorney fees and costs of service of process at the least expensive level, but should not include costs which are

normal overhead such as telephone, copying, and secretarial time.

"Client" means a person who has been approved for a grant or program administered by the department.

NEW SECTION

WAC 388-79-030 Guardianship fees and administrative costs including attorney fees. The superior court may allow guardianship fees and administrative costs in an amount set out in an order, but for orders entered after March 15, 1998; for a department client:

(1) Where the order establishes or continues a legal guardianship and the order requires a future review or accounting; the amount of guardianship fees for a client shall not exceed one hundred seventy-five dollars per month;

(2) The amount of administrative costs including attorney fees directly related to establishing a guardianship for a client shall not exceed seven hundred dollars; and

(3) In any order on review the amount of administrative costs including attorney fees shall not exceed a total of six hundred dollars during any three year period.

NEW SECTION

WAC 388-79-040 Procedure to revise award letter. After March 15, 1998 where a client is involved in a guardianship then the department shall be entitled to notice of proceedings as described in RCW 11.92.150.

(1) The notice shall be given to the appropriate regional administrator of the program serving the client. A list of the regional administrators will be available upon request.

(2) If the fees and costs requested and established by the order are equal to or lower than the maximum amount set by this rule then the award letter or document setting the client's participation shall be adjusted to reflect that amount upon receipt by the department of the court order setting a monthly amount.

(3) Should there be exceptional circumstances then the guardian may request exceptional fees from the regional administrator before obtaining a court order. If the fees and costs are agreed to by the regional administrator then the award letter or document setting the client's participation shall be adjusted to reflect that amount upon receipt of a court order setting such agreed monthly amount.

AMENDATORY SECTION (Amending WSR 97-16-008, filed 7/24/97, effective 7/24/97)

WAC 388-513-1380 Institutional—Participation—Client share of monthly institutional payments. This section describes the allocations which can be deducted from the institutional client's income and excess resources in order to determine the amount available for the client's participation in the cost of care.

(1) ~~(In reducing payment to the institution, the department shall consider the institutionalized client's:~~

~~(a) Income under WAC 388-513-1330 (3)(a), (b), (c), and (d); and~~

~~(b) Resources under WAC 388-513-1350, 388-513-1360, and 388-513-1365.~~

~~(2) In reducing payment to the institution, the department shall consider the eligible institutionalized))~~ The

PROPOSED

client's excess resources are available to meet the cost of care after the following ~~((allocations))~~ deductions in this order:

(a) Health insurance and Medicare premiums, deductions, and co-insurance not paid by a third party; and

(b) Noncovered medical bills which are the liability of the client and not paid by a third party.

~~((3))~~ (2) The ~~((department shall not use))~~ allocations used to reduce excess resources under subsection ~~((2))~~ (1) of this section cannot be used to reduce income under subsection ~~((4))~~ (3) of this section.

~~((4) The department shall deduct the following amounts, in the following order, from the institutionalized client's total income, including amounts disregarded in determining eligibility))~~

(3) The client's nonexempt income is available to meet the cost of care after the following deductions in this order:

(a) ~~((Specified))~~ Deductions described in subsection (3)(a) may not total more than the one-person medically needy income level (MNIL):

(i) A personal needs allowance (PNA) as follows:
~~((i))~~ (A) One hundred sixty dollars for a veteran living in a Medicaid-certified state veteran's home nursing facility;
~~((ii))~~ (B) Ninety dollars for a single veteran, or widow or widower of a veteran receiving an improved veteran's pension; or

~~((iii))~~ (C) Forty-one dollars and sixty-two cents for all other clients in a medical ~~((institutions))~~ facility.

~~((b))~~ (ii) Federal, state, or local income taxes:
~~((i))~~ (A) Mandatorily withheld from earned or unearned income for income tax purposes before receipt by the client; or

~~((ii))~~ (B) Not covered by withholding, but are owed or have been paid by the client ~~((; and))~~.

~~((iii))~~ (iii) ~~((Does not exceed the one-person medically needy income level less the client's personal needs allowance.~~

~~((e))~~ (e)) Wages ~~((not to exceed the one-person medically needy income level (MNIL) less the client's personal needs allowance))~~ for a client who:

~~((i))~~ (A) Is SSI-related; and

~~((ii))~~ (B) Receives the wages as part of a department-approved training or rehabilitative program designed to prepare the client for a less restrictive placement. When determining this deduction ~~((; the department shall:~~

~~((A) Not allow a deduction for))~~ employment expenses ~~((; and~~

~~((B) Apply the client's wages not deducted under this subsection to the client's cost of care.~~

~~((d) The total amounts deducted under subsection (4) (a), (b), and (c) of this section shall not exceed the one person MNIL.~~

~~((e))~~ are not deducted.

(iv) Guardianship fees and administrative costs including any attorney fees paid by the guardian, after March 15, 1998, only as allowed by chapter 388-79 WAC.

(b) A monthly needs allowance for the community spouse not to exceed, effective January 1, ~~((1997, one thousand nine hundred seventy six))~~ 1998, two thousand nineteen dollars, unless specified in subsection ~~((6))~~ (5) of this section. ~~((The department shall ensure))~~ The monthly needs allowance is:

(i) An amount added to the community spouse's gross income to provide a total ~~((community spouse's income))~~ of one thousand three hundred twenty-seven dollars;

(ii) Excess shelter expenses as specified under subsection ~~((5))~~ (4) of this section; and

(iii) Allowed only to the extent the client's income ~~((of the institutionalized spouse))~~ is made available to the community spouse.

~~((f) An amount for the)~~

(c) A monthly maintenance needs ~~((of))~~ amount for each dependent ~~((family member))~~ or minor child, dependent parent or dependent sibling:

(i) Residing with the community spouse ~~((;~~
~~((ii))~~ equal to one-third of the amount that one thousand three hundred twenty-seven dollars exceeds the family member's income. Child support received from an absent parent is the child's income.

(ii) ~~(("Family member" means a:~~

~~((A) Dependent or minor child;~~

~~((B) Dependent parent; or~~

~~((C) Dependent sibling of the institutionalized or community spouse.~~

~~((g) When an institutional client does not have a community spouse, an amount for the maintenance needs of family members residing in the client's home))~~ Not residing with the community spouse, equal to the ~~((medically needy income level))~~ MNIL for the number of ~~((legal dependents))~~ family members in the home less the income of the ~~((dependents))~~ family members.

~~((h) Amounts for)~~ (d) Incurred medical expenses, not subject to third-party payment, which are the current liability of the client including ~~((; but not limited to))~~:

(i) Health insurance premiums, deductions, and coinsurance ~~((; or deductible charges))~~ amounts; and

(ii) Necessary medical care recognized under state law, but not covered under Medicaid.

~~((ii))~~ (e) Maintenance of the home of a single person or institutionalized couple:

(i) Up to one hundred percent of the one-person federal poverty level per month;

(ii) Limited to a six-month period; ~~((and))~~

(iii) When a physician has certified that the client is likely to return to the home within the six-month period; and

(iv) When social service staff documents initial need for the income exemption and reviews the person's circumstances after ninety days.

~~((5))~~ (4) For the purposes of this section, ~~((the department shall))~~ "excess shelter expenses" equal the actual expenses under subsection (4)(a) of this section less the standard shelter allocation under subsection (4)(b) of this section:

(a) ~~((Determine))~~ Shelter expenses ~~((to be))~~ are the actual required maintenance expenses for the community spouse's principal residence for:

(i) Rent;

(ii) Mortgage;

(iii) Taxes and insurance;

(iv) Any maintenance care for a condominium or cooperative; and

(v) The food stamp standard utility allowance ~~((for utilities))~~, provided the utilities are not included in the maintenance charges for a condominium or cooperative.

(b) ~~((Consider))~~ The standard shelter allocation ~~((to be))~~ is three hundred ninety-nine dollars, effective April 1, 1997.

~~((e) Consider as "excess shelter expenses" an amount equal to the actual expenses under subsection (5)(a) of this section less the standard shelter allocation under subsection (5)(b) of this section.~~

~~(6)) (5) The ((department shall determine the)) amount the institutional spouse may allocate~~((s))~~ to the community spouse may ~~((only))~~ be greater than the amount in subsection ~~((4)(e)(i))~~ (3)(b) of this section only when:~~

(a) A court enters an order against the institutionalized client for the ~~((community spouse))~~ support of the community spouse; or

(b) A hearings officer determines a greater amount is needed because of exceptional circumstances resulting in extreme financial duress.

~~((7) The client shall use the income remaining after allocations specified in subsection (4) of this section toward payment of the client's cost of care at the department rate.~~

~~(8) SSI-related clients.~~

~~(a)) (6) SSI~~((related))~~ clients shall continue to receive total payment under 1611 (b)(1) of the Social Security Act for the first three full calendar months of institutionalization in a public or Medicaid-approved medical institution or facility when the:~~

~~((i)) (a) Stay in the institution or facility is not expected to exceed three months; and~~

~~((ii) SSI-related) (b) The client~~((s))~~ plans to return to former living arrangements.~~

~~((b) The department shall not consider the SSI payment when computing the client's participation amount.~~

~~(9) The department shall not consider income from reparation payments made by the Federal Republic of Germany when computing the client's participation amount.)~~

WSR 98-03-086
PROPOSED RULES
PARKS AND RECREATION
COMMISSION

[Filed January 21, 1998, 11:35 a.m.]

Original Notice.

Preproposal statement of inquiry was filed as WSR 97-24-111.

Title of Rule: Chapter 352-60 WAC, Designation of whitewater river sections.

Purpose: To designate whitewater river sections in state for regulation compliance by whitewater river outfitters licensed in Washington.

Statutory Authority for Adoption: RCW 88.12.279 and 43.51.400.

Statute Being Implemented: RCW 88.12.279.

Summary: Adopts appropriate definitions and listing of whitewater river sections with class III rapids or greater.

Reasons Supporting Proposal: Directed by RCW 88.12.279.

Name of Agency Personnel Responsible for Drafting and Implementation: Mark Kenny, Olympia, (360) 902-8510; and Enforcement: County Sheriff Department, statewide.

Name of Proponent: Washington State Parks and Recreation Commission, governmental.

Rule is not necessitated by federal law, federal or state court decision.

Explanation of Rule, its Purpose, and Anticipated Effects: Purpose of proposed rule is to identify whitewater river sections in the state of Washington on which whitewater river outfitters taking passengers for hire must comply with statutes in RCW 88.12.279.

Proposal does not change existing rules.

No small business economic impact statement has been prepared under chapter 19.85 RCW. The proposed rule does not have an economic impact on small businesses. There are no costs imposed or associated with compliance with this proposed rule.

RCW 34.05.328 does not apply to this rule adoption. Significant legislative rule-making requirements are not imposed on the commission.

Hearing Location: Olympia, Washington, on March 6, 1998, at 9:00 a.m., contact Paul Malmberg at (360) 753-7143 for hearing location.

Assistance for Persons with Disabilities: Contact Paul Malmberg by February 20, 1998, (360) 753-7143.

Submit Written Comments to: Mark Kenny, Washington State Parks, P.O. Box 42650, Olympia, WA 98504-2650, FAX (360) 753-1594, by February 20, 1998.

Date of Intended Adoption: March 6, 1998.

January 20, 1998

Jim French

Senior Policy Analyst

AMENDATORY SECTION (Amending WSR 94-16-027, filed 7/25/94, effective 8/25/94)

WAC 352-60-020 Definitions. When used in this chapter the following words and phrases shall have the meanings designated in this section unless a different meaning is expressly provided or unless the context clearly indicates otherwise.

"Carrying passengers for hire" means carrying passengers in a vessel on waters of the state for valuable consideration, whether given directly or indirectly or received by the owner, agent, operator, or other person having an interest in the vessel. This shall not include trips where expenses for food, transportation, or incidentals are shared by participants on an even basis. Anyone receiving compensation for skills or money for amortization of equipment and carrying passengers shall be considered to be carrying passengers for hire on waters of the state.

"Coastal waters" means those waters (i.e., bays, sounds, harbors, rivers, inlets, etc.) directly connected to the territorial seas of the state of Washington where any entrance exceeds two nautical miles between opposite shorelines to the first point where the largest distance between shorelines narrows to two miles, as shown on the current edition of the appropriate National Ocean Service chart used for navigation. Shorelines of islands or points of land present within a waterway are considered when determining the distance between opposite shorelines.

"International waters" means the high seas within the territorial limits of Washington state seaward of the demarcation lines dividing the high seas from the harbors, rivers,

bays, sounds, and other inland waters, as established in Chapter 33, Code of Federal Regulations, Part 80, and are governed by the International Regulations for Preventing Collisions at Sea, 1972, (72 COLREGS), Chapter 33, Code of Federal Regulations, Part 81-72, Appendix A.

"Inland waters" means the waters within the territorial limits of Washington state shoreward of the demarcation lines dividing the high seas from harbors, rivers, bays, sounds, and other inland waters, as established in Chapter 33, Code of Federal Regulations, Part 80, which are not governed by the International Regulations for Preventing Collisions at Sea, 1972, (72 COLREGS), Title 33, Code of Federal Regulations, Part 81-72, Appendix A.

"Length" means a straight line measurement of the overall distance from the foremost point of a vessel to the aftermost part of a vessel, measured parallel to the centerline not including bow sprits, bumpkins, boomkins, rudders, outboard motor brackets, outdrive units, propellers, and similar fittings or attachments.

"Observer" means an individual riding in a vessel who is responsible for observing a water skier at all times.

"Operate" means to steer, direct, or otherwise have physical control of a vessel that is underway.

"Operator" means an individual who steers, directs, or otherwise has physical control of a vessel that is underway or exercises actual authority to control the person at the helm.

"Owner" means a person who has a lawful right to possession of a vessel by purchase, exchange, gift, lease, inheritance, or legal action whether or not the vessel is subject to a security interest.

"Person" means any individual, sole proprietorship, partnership, corporation, nonprofit corporation or organization, limited liability company, firm, association, or other legal entity located within or outside this state.

"Personal flotation device" means a wearable Type I off-shore life jacket, Type II wearable near-shore buoyant vest, Type III wearable flotation aid, Type IV throwable ring buoy or buoyant cushion, or Type V special use device or hybrid inflatable device, that is approved by the United States Coast Guard Commandant under Chapter 46, Code of Federal Regulations, Part 160.

"PFD" means a personal flotation device.

"Power-driven vessel" means any vessel propelled by machinery.

"Sailing vessel" means any vessel under sail provided that propelling machinery, if fitted, is not being used.

"Racing shell, rowing scull, and racing kayak" means any manually propelled boat that is recognized by a national or international racing association for use in competitive racing, in which all occupants row, scull, or paddle, with the exception of a coxswain, if one is provided, and which is not designed to carry and does not carry any equipment not solely for competitive racing.

"Underway" means that a vessel is not at anchor, or made fast to the shore, or aground.

"Use" means to operate, navigate, moor or employ.

"Vessel" means every description of watercraft used or capable of being used as a means of transportation on the water, other than a seaplane. However, it does not include inner tubes, air mattresses, and small rafts or flotation devices or toys customarily used by swimmers.

"Vessel engaged in fishing" means any vessel fishing with nets, lines, trawls or other fishing apparatus which restrict maneuverability, but does not include a vessel fishing with trolling lines or other fishing apparatus which do not restrict maneuverability.

"Vessel not under command" means a vessel which through some exceptional circumstance is unable to maneuver as required by these requirements and is therefore unable to keep out of the way of another vessel.

"Vessel restricted in her ability to maneuver" means a vessel which from the nature of her work is restricted in her ability to maneuver as required by these requirements and is therefore unable to keep out of the way of another vessel. Vessels restricted in their ability to maneuver include, but are not limited to:

- A vessel engaged in laying, servicing or picking up a navigation mark, submarine cable, or pipeline;
- A vessel engaged in dredging, surveying, or underwater operations;
- A vessel engaged in replenishment or transferring persons, provisions, or cargo while underway;
- A vessel engaged in the launching or recovery of aircraft;
- A vessel engaged in mineclearance operations; and
- A vessel engaged in a towing operation such as severely restricts the towing vessel and her tow in their ability to deviate from their course.

"Visual distress signal" means any signalling device approved by the United States Coast Guard for use on recreational vessels.

"Water skiing" means the physical act of being towed behind a vessel on, but not limited to, any skis, aquaplane, kneeboard, tube, or any other similar device.

"Waters of the state" means any waters within the territorial limits of Washington state.

"Whistle" means any sound signaling appliance capable of producing the prescribed blasts and which complies with specifications found in Title 33, Code of Federal Regulations, Part 81, Appendix A.

"Whitewater rivers of the state" means those rivers and streams, or parts thereof, within the boundaries of the state as listed in RCW 88.12.265 or as designated by the commission in WAC 352-60-140(2).

"Whitewater river outfitter" means any person who is advertising to carry or carries passengers for hire on any whitewater river of the state, but does not include any person whose only service on a given trip is providing instruction in canoeing or kayaking skills.

NEW SECTION

WAC 352-60-140 Designation of whitewater rivers and river sections. Whitewater river outfitters must comply with the provisions found in RCW 88.12.245 through 88.12.275 when operating on whitewater rivers or sections of rivers of the state as set forth in this section.

(1) As provided by RCW 88.12.265, whitewater rivers of the state include the following rivers and sections of rivers:

- (a) Green River above Flaming Geyser state park;
- (b) Klickitat River above the confluence with Summit Creek;

- (c) Methow River below the town of Carlton;
- (d) Sauk River above the town of Darrington;
- (e) Skagit River above Bacon Creek;
- (f) Suiattle River;
- (g) Tieton River below Rimrock Dam;
- (h) Skykomish River below Sunset Falls and above the Highway 2 bridge one mile east of the town of Gold Bar;
- (i) Wenatchee River above the Wenatchee County park at the town of Monitor;

(j) White Salmon River.
 (2) Additionally, the commission designates the following sections of rivers as having at least one class III rapid or greater, as described in the *Safety Code* of the American Whitewater Affiliation. River sections designated in this section are based on information published in the American Whitewater Affiliation's *Nationwide Whitewater Inventory*, 1990 edition:

WASHINGTON RIVER SECTIONS—CLASS III OR GREATER

River	Section(s)	Miles	Class	County
American	Hells Crossing (Victory Hall Creek)	4.5	IV	Yakima
Baker	North Cascades National Park to Baker Lake	2.7	IV	Whatcom
Beckler	Rapid River to mouth	7.7	III	King/Snohomish
Boulder	Boulder Falls to mouth	5.0	III	Snohomish
Canyon Creek	10 mi. upstream of mouth to mouth	10.0	V	Snohomish
Carbon	Fairfax Bridge to 0.5 mi. below Lily Creek	4.0	V	Pierce
Cascade	Marble Creek Campground to bridge above mouth	8.1	V	Skagit
Chehalis	Bridge at Fisk Falls to Pe Ell	12.6	III	Lewis
Chiwawa	Huckleberry Campground to Wenatchee River	11.0	III	Chelan
Cispus	F.R. 23 Bridge/Doe Creek to F.R. 28 Bridge	11.9	IV	Lewis
Cispus	F.R. 28 Bridge to Cowlitz River	17.2	III	Lewis
Cle Elum	Big Boulder Creek to Salmon la Sac Creek	6.9	IV-V	Kittitas
Clearwater	Bridge to Confluence with White River	4.0	III	Pierce
Deer Creek	Bridge at Rick Creek to mouth	11.0	IV	Snohomish/Skagit
Dosewallips	Elkhorn Campground to Six Mile Bridge	5.0	III	Jefferson
Duckabush	Wilderness area boundary to mouth	7.2	IV	Jefferson
Dungeness	Dungeness Forks Camp hatchery	5.1	IV	Clallam
Entiat	Entiat Falls to Brief	9.0	III	Chelan
Finney Creek	Finney Creek Rd. Bridge to bridge at mouth	16.5	IV	Skagit
Foss	Bridge 3.2 mi. upstream of mouth to mouth	3.2	IV	King
Grande Ronde	Troy (OR) to Snake River at Heller Bar	39.0	II-III	Asotin
Graywolf	Wilderness area to lower Graywolf River trailhead	15.0	IV	Clallam/Jefferson
Hamma Hamma	7.5 mi. above guard station to mouth/Hood Canal	14.4	I-III	Mason
Hangman/Latah Creek	3 mi. below Rattler Run Creek to California Creek	10.0	IV	Spokane/Whitman
Humtulpis/E. Fork	Flatbottom Creek to Boise Bridge	16.7	III	Grays Harbor
Icicle Creek	Josephine Lake to Wenatchee River	18.0	IV-VI	Chelan
Kalama	Elk Creek to Indian Creek	19.0	III	Cowlitz
Lewis	Lower Falls to Rush Creek	3.3	IV	Skamania
Lewis	Rush Creek to bridge above Swift Reservoir	7.4	III	Skamania
Lost	Pasayaten Wilderness Area to mouth	5.6	II-V	Okanogan
Mashel	Eatonville to bridge above mouth	4.6	IV	Pierce
Miller	Confluence of E. and W. Forks to S. Fork Skykomish	3.7	IV	Snohomish
Nisqually	McKenna to Tank crossing 1 mi. above Muck Creek	7.0	III	Thurston
Nooksack N. Fork	Nooksack Falls to Douglas Fir Campground	4.9	III	Whatcom
Nooksack N. Fork	Mt. Baker Wilderness to Nooksack Falls	12.3	IV	Whatcom
Nooksack N. Fork	Douglas Fir Forest Campground to Mt. Baker Highway Mile Post 27	9.6	II-III	Whatcom
Peshastin Creek	Confluence Trosen Creek to Wenatchee	13.5	III-V	Chelan
Pilchuck Creek	Lake Creek to above falls	5.1	IV	Snohomish
Pilchuck Creek	Falls to Highway 9	4.7	IV	Snohomish
Raging	I-90 to mouth	4.0	III-IV	King
Rapid	Road end to mouth	5.0	IV	Snohomish
Ruby and Granite Creek	Confluence with Beebe Creek to Ross Lake	5.4	IV	Whatcom/Skagit
Satsop/Middle Fork	Kelly Hall Rd. to Turnow Rd.	16.0	III	Grays Harbor
Sitkum	Bridge 0.2 mi. below Rainbow Creek to mouth	2.5	III	Clallam
Skykomish N.	Bear Creek to mouth	12.7	IV	Snohomish
Skykomish S.	Commonwealth Creek to 0.5 mi. below Boxley Creek	4.0	II-III	Snohomish
Snoqualmie/Middle Fork	2.5 mi. below Pratt River to Sallal Prairie	8.5	IV	King
Snoqualmie/Middle Fork	Cripple Creek to Taylor River	4.5	IV	King
Spokane	People Parks to Seven Mile Rd.	10.8	III	Spokane
Stillaguamish N.	Confluence/S. Branch to bridge below Moose Creek	8.0	V	Snohomish
Stillaguamish S.	Mallardy Creek to Verlot	9.0	III	Snohomish
Stillaguamish S.	Verlot to Granite Falls	12.3	V	Snohomish
Sultan	1 mi. below Culmback Dam to mouth	15.5	IV	Snohomish
Taylor	Bridge to mouth	1.0	III	King
Tolt S. Fork	Bridge to Confluence/N. Fork Tolt	5.9	V	King
Toutle	State Route 504 Bridge to Tower Rd. Bridge/Cline Creek	9.5	III	Cowlitz
Twisp	Confluence N. Fork and S. Fork to mouth	28.2	III	Okanogan
Tye	Carroll Creek to Confluence/Foss River and Beckler River	3.0	IV	King
White	Bridge 1.5 mi. above W. Fork to Old Pond Creek	22.1	III	Pierce

PROPOSED

White Chuck	Glacier Peak Wilderness Boundary to mouth 6 mi. below bridge	10.9	IV	Snohomish
Wind	Ranger Station near Stabler to High Bridge	7.5	V	Skamania
Wynoochee	End of road 0.5 mi. above Falls Creek to Geisler Creek	48.3	II-III	Grays Harbor

**WSR 98-03-090
PROPOSED RULES
PARKS AND RECREATION
COMMISSION**

[Filed January 21, 1998, 11:46 a.m.]

**Chapter 352-76 WAC
CLEAN VESSEL PROGRAM FUNDING ((PRO-
GRAM))**

AMENDATORY SECTION (Amending WSR 94-13-082, filed 6/13/94, effective 7/14/94)

Original Notice.
Preproposal statement of inquiry was filed as WSR 97-24-111.

Title of Rule: Chapter 352-76 WAC, Clean vessel funding program.

Purpose: Provides information on applying for funding for boat sewage disposal facilities, and environmental education projects targeting recreational boaters.

Statutory Authority for Adoption: RCW 88.12.325.

Summary: To rewrite rule for clarity and streamline process of awarding funds.

Reasons Supporting Proposal: Complies with Governor's Executive Order 97-02 Regulatory Improvement.

Name of Agency Personnel Responsible for Drafting and Implementation: Dona Wolfe, Olympia, (360) 902-8511.

Name of Proponent: Washington State Parks and Recreation Commission, governmental.

Rule is not necessitated by federal law, federal or state court decision.

Explanation of Rule, its Purpose, and Anticipated Effects: Describes process for state parks to grant funds for boat sewage facility construction and environmental education projects for recreational boaters. Places approval of grant authority with the director or designee. Will streamline program, to be more effective in granting funds.

Proposal Changes the Following Existing Rules: Delegates authority to director to approve grants.

No small business economic impact statement has been prepared under chapter 19.85 RCW. Proposed rule will reduce costs for public and private marinas, by streamlining the process of awarding state and federal financial assistance. The proposed rule does not impose compliance costs on small businesses.

RCW 34.05.328 does not apply to this rule adoption. Per RCW 34.05.328 (5)(b)(iii) and (iv), significant legislative rule-making requirements are not imposed on the commission's administration rules.

Hearing Location: Olympia, Washington, on March 6, 1998, at 9:00 a.m. Contact Paul Malmberg at (360) 753-7143 for hearing location.

Assistance for Persons with Disabilities: Contact Paul Malmberg by February 20, 1998, (360) 753-7143.

Submit Written Comments to: Dona Wolfe, Washington State Parks, P.O. Box 42650, Olympia, WA 98504-2650, FAX (360) 753-1594, by February 20, 1998.

Date of Intended Adoption: March 6, 1998.

January 16, 1998

Jim French
Senior Policy Analyst

WAC 352-76-010 ((Purpose:)) What is the purpose of clean vessel program funding? ~~((Sewage discharged by recreational boaters is a contributor to localized degradation of water quality in Washington state. The discharge of untreated sewage by boaters is prohibited under federal law in all areas within the navigable waters of the United States and under state law in all waters of the state. Many boaters have Type III marine sanitation devices (holding tanks), or portable toilets for sewage. However, there is currently an inadequate number of pumpout stations and dump stations for boaters to dispose of their sewage. The purpose of this chapter is to provide funds to public and private marinas for the purchase, construction, and renovation of pumpout and boater waste reception facilities and to provide funds to educational institutions, public agencies and boating organizations for boater environmental education activities.~~

Funding for this program will come from the federal "Clean Vessel Act of 1992," Pub.L. 102-587, Subtitle F, and state funds appropriated by the legislature for such purposes. This chapter establishes the procedures by which the commission will award funds for clean vessel projects and the conditions related to the use of funds.)) The purpose of this program is to provide funds for the purchase, construction, and renovation of pumpout and boater sewage disposal facilities and to provide funds for boater environmental education activities. Funding for this program will come from federal and state funds. This chapter establishes the procedures by which state parks will award funds for clean vessel projects and the conditions related to the use of the funds.

AMENDATORY SECTION (Amending WSR 94-13-082, filed 6/13/94, effective 7/14/94)

WAC 352-76-020 ((Definitions:)) How are the words and phrases used in this chapter? ~~((When used in this chapter, the following words and phrases shall have the meaning designated in this section unless a different meaning is expressly provided or unless the context clearly indicates otherwise.~~

~~"Boater" means any person on a recreational vessel on waters of the state of Washington.~~

~~"Boater sewage" or "boat sewage" means liquid and solid human waste material generated by boaters while using recreational vessels.—~~

~~"Boating environmental committee" means a committee of the boating safety council, the volunteer advisory body created by the commission to advise on matters related to the state boating program, and composed of representatives of Washington's boating community and other concerned interests.~~

PROPOSED

"Clean Vessel Act" or "act" means the federal Clean Vessel Act, Pub.L. 102-587, Subtitle F.

"Commission" means the Washington state parks and recreation commission.

"Construction" means activities which produce new capital improvements and increase the value or usefulness of existing property.

"Director" means the director of the Washington state parks and recreation commission.

"Education/information" means the education/information program designed to make recreational boaters and others aware of the environmental pollution problem resulting from sewage discharges from vessels, to inform them of facility locations, and to encourage environmentally responsible behavior.

"Eligible cost" for sewage pumpout and sewage dump stations means that portion of the cost of the facility that can be financed under the provisions of this chapter and guidelines developed pursuant to this chapter.

"Facility" means a pumpout station, dump station or other device for the disposal, holding and/or transport of boater sewage.

"Funding recipient" is the entity which has been awarded a contract with state parks to receive funding for activities identified in WAC 352-76-040.

"Maintenance" means those activities necessary for upkeep of a facility. These are activities that allow the facility to function and include routine recurring custodial maintenance such as housekeeping and minor repairs as well as the supplies, materials, and tools necessary to carry out the work. Also included is nonroutine cyclical maintenance to keep facilities fully functional.

"Marina" means a facility providing boat moorage space, fuel, or commercial services. Commercial service includes, but is not limited to, overnight or live aboard boating accommodations.

"Operation" means those activities necessary for the functioning of a facility to produce desired results. These are activities that make the facility work.

"Plan" is the plan identified in the technical guidelines as published in the *Federal Register*, for construction or renovation of pumpout and dump stations necessary to ensure that there are adequate and reasonably available stations to meet the needs of recreational vessels using the coastal waters of the state titled *Comprehensive Plan for Boat Sewage Disposal for Washington State*.

"Private entities" means any individual firm, corporation, association, partnership, consortium, joint venture, industry, or any other nonpublic entity which operates or has the potential to operate a facility or a boater education program.

"Project" means a facility or a boater environmental education program for which a public or private entity applies for and receives funding.

"Public entities" means all elected or appointed bodies and agencies of government, including tribal governments, responsible for collecting and spending public funds.

"Recreational vessel" means a watercraft manufactured for operation, or operated, primarily for pleasure. This term includes any watercraft leased, rented, or chartered to another for the latter's pleasure.

"Renovation" means major rehabilitation of a facility to restore it to its original intended purpose.

"Sewage dump station" means a facility specifically designed to receive sewage from portable toilets carried on vessels. Sewage dump stations do not include lavatories or restrooms.

"Sewage pumpout station" means a mechanical device, fixed or portable, generally stationed on a dock, pier, float, barge, vessel or other location convenient to boaters, designed to remove sewage waste from Type III marine sanitation devices (holding tanks) installed onboard vessels.

"State parks" means the operating arm of the Washington state parks and recreation commission, which is responsible for implementation of commission programs established pursuant to statute or policy.

"Type III marine sanitation device" (holding tank) means any equipment for installation onboard a vessel which is specifically designed to receive, retain, and discharge sewage.) (1) "Boat sewage disposal facility" means a mechanical or static device, fixed or portable, generally stationed on a dock, pier, float, barge, vessel or other location convenient to boaters, designed to remove sewage waste from recreational vessels, including pumpouts, dump stations, and floating restrooms.

(2) "Boater" means any person on a recreational vessel on waters of the state of Washington.

(3) "Commission" means the Washington state parks and recreation commission.

(4) "Director" means the director of the Washington state parks and recreation commission or designee.

(5) "Plan" is the comprehensive plan for boat sewage disposal for Washington state.

(6) "Recreational vessel" means a watercraft manufactured for operation, or operated, primarily for pleasure. This term includes any watercraft leased, rented, or chartered to another for the latter's pleasure.

(7) "State parks" means the operating arm of the Washington state parks and recreation commission, which is responsible for implementation of commission programs established pursuant to statute or policy.

AMENDATORY SECTION (Amending WSR 94-13-082, filed 6/13/94, effective 7/14/94)

WAC 352-76-030 ((Eligible applicants.)) Who is eligible for clean vessel program funding? ((The commission may award funding to the owner(s) of public, tribal or private marinas, boat launches, boater destination sites, marine service enterprises, and to schools, public agencies, and boating and environmental organizations.)) Owner(s) of public, tribal or private marinas, boat launches, state, local or municipal park districts, boater destination sites, marine service enterprises, schools, public agencies, nonprofit or not-for-profit organizations, and boating and environmental organizations are eligible to apply for the funds.

AMENDATORY SECTION (Amending WSR 94-13-082, filed 6/13/94, effective 7/14/94)

WAC 352-76-040 ((Eligible activities.)) What activities are eligible for clean vessel program funding? (((1) Subject to any limitations imposed by the director pursuant to WAC 352-76-050(2), eligible activities may include:

~~(a) Construction/renovation of facilities including floating restrooms in the water, not connected to land or structures connected to the land used solely by boaters.~~

~~(b) Any activity necessary to hold and transport sewage to sewage treatment plants, such as holding tanks, piping, and haulage costs.~~

~~(c) Any activity necessary to get sewage treatment plants to accept sewage, such as installing bleed-in facilities.~~

~~(d) Education/information program to educate/inform the following audiences about the environmental pollution problems resulting from sewage discharges from recreational vessels, to inform them of the location of pumpout and dump stations, and to encourage environmentally responsible behaviors:~~

~~(i) Boat owners and operators;~~

~~(ii) Marina owners and operators;~~

~~(iii) Sewage treatment plant owners and operators;~~

~~(iv) Federal, state and local governmental authorities and organizations;~~

~~(v) Boating supply and retailers; and~~

~~(vi) The general public.~~

~~(2) The following activities are ineligible:~~

~~(a) Activities that do not provide public benefits.~~

~~(b) Enforcement activities.~~

~~(c) Construction/renovation of upland restroom facilities.~~

~~(d) Construction/renovation, operation and maintenance of on-site sewage treatment plants, such as package treatment plants and septic systems, and of municipal sewage treatment plants for primary and secondary treatment.)~~ (1) The director will select those activities that are eligible for funding from the following list and publish them in the current application package:

(a) Construction/renovation of boat sewage disposal facilities in the water, not connected to land, and used solely by boaters. The exception is facilities used for dumping waste from portable toilets, which may be placed on shore.

(b) Any activity necessary to hold and transport sewage to sewage treatment plants, such as holding tanks, piping, and haulage costs.

(c) Any activity necessary to get sewage treatment plants to accept sewage, such as installing bleed-in facilities.

(d) Any education/information project to educate/inform boaters about environmental pollution problems including those resulting from sewage discharges from recreational vessels or other boater practices, to inform them of the location of pumpout and dump stations, and to encourage environmentally responsible behavior.

(2) The following activities are ineligible:

(a) Activities that do not provide public benefits.

(b) Enforcement activities.

(c) Construction/renovation of upland restroom facilities.

(d) Construction/renovation, operation and maintenance of on-site sewage treatment plants, such as package treatment plants and septic systems, and of municipal sewage treatment plants for primary and secondary treatment unless approved by U.S. Fish and Wildlife Service.

AMENDATORY SECTION (Amending WSR 94-13-082, filed 6/13/94, effective 7/14/94)

WAC 352-76-050 ((Limitations on the availability and use of funds.)) Are there any limitations on the availability and use of funds? (((1) The director may establish limitations on the availability and use of clean vessel project funds for a funding application period when the director believes that doing so would assist the commission in providing for an efficient network of boater sewage disposal facilities and/or an effective boater education and information program. Any limitations shall be defined in the application package for each funding period. The director shall establish such limitations only after considering the following:

~~(a) Consistency with the *Comprehensive Plan for Boat Sewage Disposal for Washington State*.~~

~~(b) Availability of funds.~~

~~(c) Advice from the commission's "boating environmental committee."~~

~~(d) Information which identifies emerging technology, user trends, public education opportunities or other studies or data which can direct the proper disposal of boater sewage.~~

~~Limitations established by the director shall be confined to those set forth in subsections (2) through (5) of this section.~~

~~(2) Eligible activities. For each funding period the director shall determine which activities specified in WAC 352-76-040 shall be eligible for project funding, and shall determine the amount of project funding to be allocated to each category of activity.~~

~~(3) Cost sharing. The director may determine that applicants be required to make a matching contribution to be eligible for funding.~~

~~(4) Allowable costs. The director may limit the amount of funding available for any element(s) of a project including but not limited to; design, engineering and consultant fees, construction, equipment, floats or other related appurtenances, and applicant staff costs.~~

~~(5) Fees charged. A maximum of a five dollar fee may be charged per use, with no justification, for use of pumpout facilities constructed with grant funds. If higher fees are charged, they must be justified to the director before the proposal can be approved. Such proceeds shall be retained, accounted for, and used by the operator to defray operation and maintenance costs as long as the facility is needed and it serves its intended purpose. The maximum fee shall be evaluated for inflation each year.)~~ (1) The director may establish limitations on the availability and use of clean vessel program funds for a funding application period when the director believes that doing so would assist the commission in providing for an efficient network of boater sewage disposal facilities or specific environmental education projects. Any limitations shall be defined in the current application package. The director shall establish such limitations only after considering the following:

(a) Consistency with the plan.

(b) Availability of funds.

(2) The director may determine that applicants be required to make a matching contribution to be eligible for funding.

PROPOSED

(3) The director may limit the amount of funding available for any element(s) of a project.

AMENDATORY SECTION (Amending WSR 94-13-082, filed 6/13/94, effective 7/14/94)

WAC 352-76-060 ((Application process.)) How does one apply for funding? In order to be considered ((by the commission)) for receipt of ((clean vessel project funding an eligible applicant must:

(1) Complete an application form prescribed by the director and file the application on or before the filing date set by the director in the application package.

(2) Provide a statement of intent from the governing body of the requesting public entity or private entity that the necessary matching funds will be made available for the project as described in the application and that project funding will be accepted on a reimbursement basis.

(3) Agree to all the terms and conditions established in this chapter and as specified in the project contract)) a boat sewage disposal or educational grant, an eligible applicant must complete and submit an application form provided by state parks following the instructions provided in the form.

AMENDATORY SECTION (Amending WSR 94-13-082, filed 6/13/94, effective 7/14/94)

WAC 352-76-070 ((Project selection.)) What criteria will be used to evaluate applications? ((The selection criteria and the selection process which will be used by the commission in the review and disbursement of clean vessel project funds are as follows:

(1) Selection criteria. The director shall select any or all of the following criteria in evaluating applications for project funding. The appropriate criteria shall be identified in the application packet. Each proposal must be compatible with the comprehensive plan for boat sewage disposal for Washington state.

(a) Proposals that provide for public/private partnership efforts to develop and operate sewage pumpout and dump stations;

(b) Proposals for innovative ways to increase the availability and use of pumpout and dump stations, e.g., where private parties put in more than the minimum amount;

(c) Proposals that include an education/information component;

(d) Proposals that benefit the waters most likely to be affected by the discharge of sewage from vessels, including the waters as defined in the technical guidelines as published in the *Federal Register*, 59 *Federal Register* 11299;

(e) Proposals in areas with high vessel/pumpout or dump station ratios;

(f) Proposals which show consideration for the economics of installation or implementation to provide greatest cost benefit ratio;

(g) Proposals which can demonstrate their feasibility for construction or implementation;

(h) Proposals which contribute to the statewide network of facilities or programs in terms of proximity to existing facilities and geographic balance.

(2) Selection process.

~~(a) Applications will be reviewed by state parks staff to determine eligibility and consistency with the requirements of this chapter.~~

~~(b) The director will receive and consider the recommendations of the boating environmental committee and will present final recommendations to the commission.~~

~~(c) The commission retains the authority and the responsibility to make the final decision concerning the funding of a project.)) The following criteria are used to evaluate applications:~~

~~(1) For boat sewage disposal facility applications:~~

~~(a) Proposals that provide for public/private partnerships;~~

~~(b) Proposals that provide for innovative ways to increase the availability and use of boat sewage disposal facilities;~~

~~(c) Proposals that benefit the waters most likely to be affected by the discharge of sewage from vessels;~~

~~(d) Proposals in areas with a high vessel/boat sewage disposal facility ratio;~~

~~(e) Proposals which show consideration for the economics of installation or implementation to provide greatest cost benefit ratio, e.g., where private parties put in more than the minimum amount;~~

~~(f) Proposals which contribute to the state-wide network of facilities or programs in terms of proximity to existing facilities and geographic balance;~~

~~(g) Proposals which demonstrate their compatibility with the plan.~~

~~(2) For education or information applications:~~

~~(a) Proposals which encourage sound environmental practices through changing boater behavior;~~

~~(b) Proposals which target sensitive areas as defined in the plan;~~

~~(c) Proposals which encourage community involvement;~~

~~(d) Proposals targeted to areas of high boater use;~~

~~(e) Proposals which demonstrate innovative approaches to education or information;~~

~~(f) Proposals which provide for public/private partnerships.~~

NEW SECTION

WAC 352-76-075 How will projects be selected for funding? (1) Applications will be reviewed by state parks staff to determine eligibility and will be evaluated against the criteria in this chapter.

(2) Staff will consult with and consider the recommendations of the boating environmental committee of the state parks boating safety council and will present final recommendations to the director.

(3) The director shall make the final decision on funding a project.

AMENDATORY SECTION (Amending WSR 94-13-082, filed 6/13/94, effective 7/14/94)

WAC 352-76-080 What conditions are placed on the use of funds((-))? ((The following conditions apply to the use of clean vessel project funds.

(1) Project contract. For every funded project a contract must be executed by the director or designee on behalf of the commission and by the funding recipient. The funding

recipient may not proceed with the project until the contract has been executed by both parties.

(2) Design criteria. The funding recipient shall ensure that design and installation of the facilities are in accordance with the technical standards provided by state parks.

(3) Signage. A state or national symbol provided by state parks shall be installed to be clearly visible to direct boaters entering the facility to sewage pumpout and dump stations. Appropriate information shall be installed at sewage pumpout and dump stations. Such information shall indicate fees, restrictions, hours of operation, operating instructions, and a contact name and telephone number if the facility is inoperable. State parks will identify required wording.

(4) Public access. All recreational vessels must have access to sewage pumpout and dump stations funded under this grant program. Facilities shall be operated, maintained, and continue to be reasonably accessible to all recreational vessels for the full period of their useful life.

(5) Operation and maintenance. All facilities funded under this program shall be operated and maintained by the funding recipient for the full period of their useful life. All structures and related assets are to be used for their stated purpose.

(6) Reporting requirements. The funding recipient shall submit the reports required by state parks as directed in the funding contract.

(7) Compliance with state and federal laws, regulations, and policies. In accepting project funding, the funding recipient must agree to and certify compliance with all applicable federal and state laws, regulations and policies.

(8) Accountability. Funding recipients shall maintain accurate accounting records on the expenditure of project funds, provide state parks with these records consistent with the agreement or upon request, and permit state parks to audit the use of funds in accordance with generally accepted audit practices and standards. State parks reserves the right to terminate its participation in any program which fails to perform according to the requirements of this chapter.) The following conditions apply to the use of the funds:

(1) Project contract. For every funded project a contract must be executed by the director on behalf of the commission and by the funding recipient. Generally, the funding recipient will not be reimbursed for costs incurred prior to the execution of the contract by both parties.

(2) Technical standards. The funding recipient for boat sewage disposal facilities shall ensure that design and installation of the facilities are in accordance with the technical standards provided by state parks.

(3) Signage.

(a) Boat sewage disposal facilities. A national symbol provided by state parks shall be installed to be clearly visible to direct boaters entering the boat sewage disposal facility. Appropriate information shall be provided indicating fees, restrictions, hours of operation, operating instructions, and a contact name and telephone number if the facility is inoperable.

(b) Educational/information projects. Signage must be appropriate to local conditions and address local environmental needs. The clean vessel symbol provided by state parks shall be used in all signage.

(4) Public access. All recreational vessels must have access to boat sewage disposal facilities funded under this grant program. Facilities shall be operated, maintained, and continue to be reasonably accessible to all recreational vessels for the full period of their useful life.

(5) Operation and maintenance. All facilities funded under this program shall be operated and maintained by the funding recipient for the full period of their useful life. All structures and related assets are to be used for their stated purpose.

(6) Reporting requirements. The funding recipient shall submit the reports required by state parks as directed in the funding contract.

(7) Compliance with state and federal laws, regulations, and policies. In accepting project funding, the funding recipient must agree to and certify compliance with all applicable federal and state laws, regulations and policies.

(8) Accountability. Funding recipients shall maintain accurate accounting records on the expenditure of project funds, provide state parks with these records consistent with the agreement or upon request, and permit state parks to audit the use of funds in accordance with generally accepted audit practices and standards. State parks reserves the right to terminate its participation in any program which fails to perform according to the requirements of this chapter.

(9) Fees charged. A maximum five-dollar fee may be charged, with no justification, for use of boat sewage disposal facilities constructed, operated or maintained with grant funds. If higher fees are charged, they must be justified and approved by the director prior to charging a higher fee. Proceeds shall be retained, accounted for, and used by the operator to defray operation and maintenance costs as long as the facility is needed and it serves its intended purpose. The maximum fee shall be evaluated for inflation as determined by the director.



WSR 98-03-071**EXPEDITED ADOPTION****DEPARTMENT OF ECOLOGY**

[Order 97-46—Filed January 21, 1998, 8:10 a.m.]

Title of Rule: Implement forest practices rules for Gorge Management Plan in the special management areas of the Columbia River Gorge National Scenic Area. Certain parts of the forest practices rules (Title 222 WAC) are adopted by reference via forest practices rules and regulations to protect water quality (chapter 173-202 WAC).

Purpose: Proposed rules provide a regulatory process for forest practices in the special management areas of the Columbia River Gorge National Scenic Area.

Other Identifying Information: This is a negotiated rule-making proposal developed with stakeholders.

Statutory Authority for Adoption: RCW 90.48.420, 76.09.040, [76.09.]050 and chapter 34.05 RCW.

Statute Being Implemented: Chapter 90.48 RCW.

Summary: Adopt by reference amendments to WAC 222-16-050 about classes of forest practices in the special management areas of the Columbia River Gorge National Scenic Area.

Reasons Supporting Proposal: Proposal would make state management consistent with the intent of the Columbia River Gorge National Scenic Area Compact and the Forest Practices Act by coordinating the process for evaluating forest practices and implementing Gorge plan guidelines.

Name of Agency Personnel Responsible for Drafting: Doug Rushton, 300 Desmond Drive, Lacey, WA 98503, (360) 407-6180; **Implementation and Enforcement:** Dave Peeler, 300 Desmond Drive, Lacey, WA 98503, (360) 407-6461.

Name of Proponent: Department of Ecology, governmental.

Rule is not necessitated by federal law, federal or state court decision.

Explanation of Rule, its Purpose, and Anticipated Effects: This negotiated proposal was developed by representatives from the following groups: Forest Practices Board, Department of Natural Resources (DNR), Columbia River Gorge Commission, United State Forest Service, Gorge area landowners (industrial and nonindustrial), Gorge area environmental groups, the Friends of the Columbia Gorge, and counties. As a result of this consensus proposal, the long-standing dispute as to which forest practices standards apply within the special management area has been resolved.

Reclassifies certain Class I and II forest practices applications within the special management area of the Columbia River Gorge National Scenic Area and requires prior review by the United States Forest Service for conformance to Gorge Management Guidelines. DNR's role in administering and enforcing the permitting process for forest practices within the Columbia River Gorge National Scenic Area special management area is clarified in two new sections.

Proposal Changes the Following Existing Rules: See above explanation. This rule proposal will make ecology rules consistent with those of the Forest Practices Board which coadopts certain parts of the forest practices rules (Title 222 WAC) via forest practices rules and regulations to protect water quality (chapter 173-202 WAC). The sections

proposed for change by the Forest Practices Board that would be coadopted are: Amends WAC 222-16-050(3) Selected Class I forest practices in the CRGNSA are reclassified and WAC 222-16-050(4) Selected Class II forest practices in the CRGNSA are reclassified.

NOTICE

THIS RULE IS BEING PROPOSED TO BE ADOPTED USING AN EXPEDITED RULE-MAKING PROCESS THAT WILL ELIMINATE THE NEED FOR THE AGENCY TO HOLD PUBLIC HEARINGS, PREPARE A SMALL BUSINESS ECONOMIC IMPACT STATEMENT, OR PROVIDE RESPONSES TO THE CRITERIA FOR A SIGNIFICANT LEGISLATIVE RULE. IF YOU OBJECT TO THIS RULE BEING ADOPTED USING THE EXPEDITED RULE-MAKING PROCESS, YOU MUST EXPRESS YOUR OBJECTIONS IN WRITING AND THEY MUST BE SENT TO Jerry Thielen, Rules Coordinator, Department of Ecology, P.O. Box 47600, Olympia, WA 98504-7600, AND RECEIVED BY March 21, 1998.

January 15, 1998

Daniel J. Silver

Deputy Director

AMENDATORY SECTION (Amending WSR 94-17-011, filed 8/8/94, effective 9/8/94)

WAC 173-202-020 Certain WAC sections adopted by reference. The following sections of the Washington Administrative Code existing on (~~September 15, 1994~~) December 24, 1997, are hereby adopted by reference as part of this chapter in all respects as though the sections were set forth herein in full:

WAC 222-08-035—Continuing review of forest practices regulations.

WAC 222-12-010—Authority.

WAC 222-12-040—Alternate plans.

WAC 222-12-045—Adaptive management.

WAC 222-12-046—Cumulative effect

WAC 222-12-070—Enforcement policy.

WAC 222-12-090—Forest practices board manual.

WAC 222-16-010—General definitions.

WAC 222-16-030—Water typing system.

WAC 222-16-035—Wetland typing system.

WAC 222-16-050 (1)(a), (1)(e), (1)(h), (1)(i), (3)(b), (3)(c), (3)(d), (3)(e), (3)(f), (3)(n), (3)(o), (3)(p), (4)(c), (4)(d), (4)(e), (5)(b), (5)(c), (5)(d), (5)(e), (5)(f), (5)(h), (5)(n)—Classes of forest practices.

WAC 222-16-070—Pesticide uses with the potential for a substantial impact on the environment.

WAC 222-22-010—Policy.

WAC 222-22-020—Watershed administrative units.

WAC 222-22-030—Qualification of watershed resource analysts, specialists, and field managers.

WAC 222-22-040—Watershed prioritization.

WAC 222-22-050—Level 1 watershed resource assessment.

WAC 222-22-060—Level 2 watershed resource assessment.

WAC 222-22-070—Prescription recommendation.

WAC 222-22-080—Approval of watershed analysis.

WAC 222-22-090—Use and review of watershed analysis.

- WAC 222-22-100—Application review prior to watershed analysis.
- WAC 222-24-010—Policy.
- WAC 222-24-020 (2), (3), (4), (6)—Road location.
- WAC 222-24-025 (2), (5), (6), (7), (8), (9), (10)—Road design.
- WAC 222-24-030 (2), (4), (5), (6), (7), (8), (9)—Road construction.
- WAC 222-24-035 (1), (2)(c), (2)(d), (2)(e), (2)(f)—Landing location and construction.
- WAC 222-24-040 (1), (2), (3), (4)—Water crossing structures.
- WAC 222-24-050—Road maintenance.
- WAC 222-24-060 (1), (2), (3), (6)—Rock quarries, gravel pits, borrow pits, and spoil disposal areas.
- WAC 222-30-010—Policy—Timber harvesting.
- WAC 222-30-020 (2), (3), (4), (5), (7)(a), (7)(e), (7)(f), (8)(c)—Harvest unit planning and design.
- WAC 222-30-025—Green-up: Even-aged harvest size and timing.
- WAC 222-30-030—Stream bank integrity.
- WAC 222-30-040—Shade requirements to maintain stream temperature.
- WAC 222-30-050 (1), (2), (3)—Felling and bucking.
- WAC 222-30-060 (1), (2), (3), (5)(c)—Cable yarding.
- WAC 222-30-070 (1), (2), (3), (4), (5), (7), (8), (9)—Tractor and wheeled skidding systems.
- WAC 222-30-080 (1), (2)—Landing cleanup.
- WAC 222-30-100 (1)(a), (1)(c), (4), (5)—Slash disposal.
- WAC 222-34-040—Site preparation and rehabilitation.
- WAC 222-38-010—Policy—Forest chemicals.
- WAC 222-38-020—Handling, storage, and application of pesticides.
- WAC 222-38-030—Handling, storage, and application of fertilizers.
- WAC 222-38-040—Handling, storage, and application of other forest chemicals.

WSR 98-03-095**EXPEDITED ADOPTION****DEPARTMENT OF HEALTH**

[Filed January 21, 1998, 11:54 a.m.]

Title of Rule: Chapter 246-249 WAC, Radioactive waste—Use of the commercial disposal site and chapter 246-250 WAC, Radioactive waste— Licensing land disposal.

Purpose: To make existing regulations compatible with the United States Nuclear Regulatory Commission (NRC) regulations. This action is necessary under the Agreement State Status with the NRC.

Statutory Authority for Adoption: RCW 70.98.050 and [70.98.]080.

Summary: Chapter 246-249 WAC will be amended to require the use of the uniform low-level radioactive waste disposal manifest. Definitions related to low-level radioactive waste disposal will also be changed to be consistent with federal regulations. Chapter 246-250 WAC will be amended to require the disposal site operator to have the capability to record and report information from the uniform manifest on a computer readable medium. The change also

requires the disposal operator to report certain information from the uniform manifest to the department.

Reasons Supporting Proposal: To make existing regulations compatible with the United States Nuclear Regulatory Commission (NRC) regulations. This action is necessary under the agreement state status with the NRC.

Name of Agency Personnel Responsible for Drafting, Implementation and Enforcement: Mikel Elsen, Tumwater, (360) 753-1116.

Name of Proponent: Department of Health, Division of Radiation Protection, governmental.

Rule is necessary because of federal law, 10 CFR Part 20 App. G, 10 CFR Part 20.2006, 10 CFR Part 20.2101, 10 CFR Part 61.80.

Explanation of Rule, its Purpose, and Anticipated Effects: The proposal modifies WAC 246-249-010 Definitions, by incorporating definitions consistent with the United States NRC regulations 10 CFR Part 20 Appendix G. WAC 246-249-090 Transfer for disposal and manifests, will also be amended to incorporate the uniform low-level radioactive waste disposal manifest as required by 10 CFR Part 20.2006, 20.2101, and 10 CFR Part 20 Appendix G. WAC 246-250-600 Maintenance of records, reports, and transfers, will be amended to require additional information from the uniform manifest to be recorded and reported by the licensee. WAC 246-250-600 will also require the disposal site operator to have the capability to report selected information from the uniform manifest on a computer readable medium. These changes are consistent with 10 CFR Part 61.80.

Proposal Changes the Following Existing Rules: The proposal modifies WAC 246-249-010 Definitions, by incorporating definitions consistent with the United States NRC regulations 10 CFR [Part] 20 Appendix G. WAC 246-249-090 Transfer for disposal and manifests, will also be amended to incorporate the uniform low-level radioactive waste disposal manifest as required by 10 CFR Part 20.2006, 20.2101, and 10 CFR Part 20 Appendix G. WAC 246-250-600 Maintenance of records, reports, and transfers, will be amended to require additional information from the uniform manifest to be recorded and reported by the licensee. WAC 246-250-600 will also require the disposal site operator to have the capability to report selected information from the uniform manifest on a computer readable medium. These changes are consistent with 10 CFR Part 61.80.

NOTICE

THIS RULE IS BEING PROPOSED TO BE ADOPTED USING AN EXPEDITED RULE-MAKING PROCESS THAT WILL ELIMINATE THE NEED FOR THE AGENCY TO HOLD PUBLIC HEARINGS, PREPARE A SMALL BUSINESS ECONOMIC IMPACT STATEMENT, OR PROVIDE RESPONSES TO THE CRITERIA FOR A SIGNIFICANT LEGISLATIVE RULE. IF YOU OBJECT TO THIS RULE BEING ADOPTED USING THE EXPEDITED RULE-MAKING PROCESS, YOU MUST EXPRESS YOUR OBJECTIONS IN WRITING AND THEY MUST BE SENT TO Michelle Davis, Department of Health, P.O. Box 7890, Olympia, WA 98504, AND RECEIVED BY March 21, 1998.

January 19, 1998
Bruce Miyahara
Secretary

AMENDATORY SECTION (Amending Order 187, filed 8/7/91, effective 9/7/91)

WAC 246-249-010 Definitions. As used in this chapter, the following definitions apply:

(1) "Low-level radioactive waste" has the same meaning as in the Low-Level Radioactive Waste Policy Amendments Act of 1985, Public Law 99-240, that is, radioactive waste not classified as high-level radioactive waste, spent nuclear fuel, or by-product material as defined in section 11e.(2) of the Atomic Energy Act.

(2) "Broker" means a person who performs one or more of the following functions for a low-level radioactive waste generator:

(a) Arranges for transportation of the low-level radioactive waste;

(b) Collects and/or consolidates shipments of such low-level radioactive waste (waste collector);

(c) Processes such low-level radioactive waste in some manner; provided it shall not mean a carrier whose sole function is to transport such low-level radioactive waste (waste processor).

~~(3) ("Shipper" or "consignor" means the last licensee to possess the low-level radioactive waste prior to transportation to the low-level radioactive waste disposal site, normally the generator when no broker is involved; otherwise, the broker.~~

~~(4) "Generator" means the last person who puts radioactive material to practical use, and who then declares it to be no longer of use or value.~~

~~(5)) "Chelating agent" means amine polycarboxylic acids (e.g., EDTA, DTPA), hydroxy-carboxylic acids, and polycarboxylic acids (e.g., citric acid, carboic acid, and glucinic acid).~~

(4) "Chemical description" means a description of the principal chemical characteristics of a low-level radioactive waste.

(5) "Computer-readable medium" means that the regulatory agency's computer can transfer the information from the medium into its memory.

(6) "Consignee" means the designated receiver of the shipment of low-level radioactive waste.

(7) "Decontamination facility" means a facility operating under a commission or agreement state license whose principal purpose is decontamination of equipment or materials to accomplish recycle, reuse, or other waste management objectives, and, for purposes of this section, is not considered to be a consignee for LLW shipments.

(8) "Disposal container" means a container principally used to confine low-level radioactive waste during disposal operations at a land disposal facility (also see "high integrity container"). Note that for some shipments, the disposal container may be the transport package.

(9) "EPA identification number" means the number received by a transporter following application to the administrator of EPA as required by 40 CFR Part 263.

(10) "Generator" means a licensee operating under a commission or agreement state license who:

(a) Is a waste generator as defined in this part; or
(b) Is the licensee to whom waste can be attributed within the context of the Low-Level Radioactive Waste

Policy Amendments Act of 1985 (e.g., waste generated as a result of decontamination or recycle activities).

(11) "High integrity container (HIC)" means a container commonly designed to meet the structural stability requirements of this chapter, and to meet department of transportation requirements for a Type A package.

(12) "Land disposal facility" means the land, buildings, and equipment which are intended to be used for the disposal of radioactive wastes. For the purposes of this chapter, a land disposal facility does not include a geologic repository.

(13) "Motor vehicle" means any vehicle, truck, tractor, semi-trailer, or trailer (or any permitted combination of these), driven by mechanical power and used upon the highways to carry property.

~~((6))~~ (14) "Motor common carrier" means a person holding itself out to the general public to provide motor vehicle transportation for compensation over regular or irregular routes, or both.

~~((7))~~ (15) "Motor contract carrier" means a person other than a common carrier providing motor vehicle transportation of property for compensation under continuing agreements with one or more persons.

~~((8))~~ (16) "Motor private carrier" means a person, other than a motor carrier, transporting property by motor vehicle when the person is the owner, lessee, or bailee of the property being transported; and the property is being transported for sale, lease, rent, or bailment, or to further a commercial enterprise.

~~((9))~~ (17) "Motor carrier" means a motor common carrier and a motor contract carrier.

(18) "NRC Forms 540, 540A, 541, 541A, 542, and 542A" are official NRC Forms referenced in this section. Licensees need not use originals of these NRC Forms as long as any substitute forms are equivalent to the original documentation in respect to content, clarity, size, and location of information. Upon agreement between the shipper and consignee, NRC Forms 541 (and 541A) and NRC Forms 542 (and 542A) may be completed, transmitted, and stored in electronic media. The electronic media must have the capability for producing legible, accurate, and complete records in the format of the uniform manifest.

(19) "Package" means the assembly of components necessary to ensure compliance with the packaging requirements of DOT regulations, together with its radioactive contents, as presented for transport.

(20) "Physical description" means the items called for on NRC Form 541 to describe a low-level radioactive waste.

(21) "Residual waste" means low-level radioactive waste resulting from processing or decontamination activities that cannot be easily separated into distinct batches attributable to specific waste generators. This waste is attributable to the processor or decontamination facility, as applicable.

(22) "Shipper" means the licensed entity (i.e., the waste generator, waste collector, or waste processor) who offers low-level radioactive waste for transportation, typically consigning this type of waste to a licensed waste collector, waste processor, or land disposal facility operator.

~~((10))~~ (23) "Shipment" means the total low-level radioactive waste material transported in one motor vehicle.

~~((11))~~ (24) "Shipping paper" means NRC Form 540 and, if required, NRC Form 540A which includes the information required by DOT in 49 CFR Part 172.

(25) "Transuranic waste" means material contaminated with elements that have an atomic number greater than 92.

(26) "Uniform Low-Level Radioactive Waste Manifest or uniform manifest" means the combination of NRC Forms 540, 541, and, if necessary, 542, and their respective continuation sheets as needed, or equivalent.

(27) "Waste collector" means an entity, operating under a commission or agreement state license, whose principal purpose is to collect and consolidate waste generated by others, and to transfer this waste, without processing or repackaging the collected waste, to another licensed waste collector, licensed waste processor, or licensed land disposal facility.

(28) "Waste description" means the physical, chemical and radiological description of a low-level radioactive waste as called for on NRC Form 541.

(29) "Waste generator" means an entity, operating under a commission or agreement state license, who:

(a) Possesses any material or component that contains radioactivity or is radioactively contaminated for which the licensee foresees no further use; and

(b) Transfers this material or component to a licensed land disposal facility or to a licensed waste collector or processor for handling or treatment prior to disposal.

A licensee performing processing or decontamination services may be a "waste generator" if the transfer of low-level radioactive waste from its facility is defined as "residual waste."

(30) "Waste processor" means an entity, operating under a commission or agreement state license, whose principal purpose is to process, repackage, or otherwise treat low-level radioactive material or waste generated by others prior to eventual transfer of waste to a licensed low-level radioactive waste land disposal facility.

(31) "Waste type" means a waste within a disposal container having a unique physical description (i.e., a specific waste descriptor code or description; or a waste sorbed on or solidified or stabilized in a specifically defined media).

AMENDATORY SECTION (Amending WSR 97-02-014, filed 12/20/96, effective 1/20/97)

WAC 246-249-090 Transfer for disposal and manifests. ~~((1))~~ Each shipment of waste to a licensed land disposal facility shall be accompanied by a shipment manifest that contains the name, address, and telephone number of the person generating the waste. The manifest shall also include the name, address, and telephone number of the person transporting the waste to the land disposal facility. The manifest shall also indicate as completely as practicable: A physical description of the waste; the waste volume; radionuclide identity and quantity; the total radioactivity; and the principal chemical form. The solidification, stabilization, or sorption agent shall be specified. Wastes containing more than 0.1 percent chelating agents by weight shall be identified and the weight percentage of the chelating agent estimated. Wastes classified as Class A, Class B, or Class C in WAC 246-249-040 shall be clearly identified as

such in the manifest unless transferred to a waste processor who treats or repackages wastes. The total quantity of the radionuclides H-3, C-14, Te-99 and I-129 must be shown.

(2) The manifest required in subsection (1) of this section may be shipping papers used to meet United States Department of Transportation or United States Environmental Protection Agency regulations or requirements of the receiver, provided all of the required information is included. Copies of manifests required by this section may be legible carbon copies or legible photocopies.

(3) Each manifest shall include a certification by the waste generator that the transported materials are properly classified, described, packaged, marked, and labeled and are in proper condition for transportation according to the applicable regulations of the United States Department of Transportation and the agency. An authorized representative of the waste generator shall sign and date the manifest.

(4) Any generator licensee who transfers waste to a land disposal facility or a licensed waste collector shall comply with the following requirements. Any licensee who transfers waste to a licensed waste processor who treats or repackages waste shall comply with the requirements of (d) through (h) of this subsection. A licensee shall:

(a) Prepare all wastes so the waste is classified according to WAC 246-249-040 and meets the waste characteristics requirements in WAC 246-249-050.

(b) Label each package of waste to identify whether it is a Class A waste, Class B waste or Class C waste, in accordance with WAC 246-249-040;

(c) Conduct a quality control program to assure compliance with WAC 246-249-040 and 246-249-050; the program must include management evaluation of audits;

(d) Prepare shipping manifests to meet the requirements of subsections (1), (2), and (3) of this section;

(e) Forward a copy of the manifest to the intended recipient, at the time of shipment; or, deliver to a broker at the time the waste is collected, obtaining acknowledgement of receipt in the form of a signed copy of the manifest from the broker;

(f) Include one copy of the manifest with the shipment;

(g) Retain a copy of the manifest with documentation of acknowledgement of receipt as the record of transfer of licensed material as required by these regulations;

(h) For any shipments or any part of a shipment for which acknowledgement of receipt has not been received within the times set forth in this section, conduct an investigation in accordance with subsection (8) of this section.

(5) Any waste broker licensee who handles prepackaged waste shall:

(a) Acknowledge receipt of the waste from the generator within one week of receipt by returning a signed copy of the manifest.

(b) Prepare a new manifest to reflect consolidated shipments; the new manifest shall serve as a listing or index for the detailed generator manifests. Copies of the generator manifests shall be a part of the new manifest.

The waste broker may prepare a new manifest without attaching the generator manifests, provided the new manifest contains for each package the information specified in subsection (1) of this section. The broker licensee shall certify that nothing has been done to the waste which would invalidate the generator's certification.

~~(c) Forward a copy of the new manifest to the land disposal facility operator at the time of shipment;~~

~~(d) Include the new manifest with the shipment to the disposal site.~~

~~(e) Retain a copy of the manifest with documentation of acknowledgement of receipt as the record of transfer of licensed material as required by these regulations, and retain information from generator manifests as required by these regulations, and retain information from generator manifests until disposition is authorized by the agency; and~~

~~(f) For any shipments or any part of a shipment for which acknowledgement of receipt is not received within the times set forth in this section, conduct an investigation in accordance with subsection (8) of this section.~~

~~(6) Any licensed waste processor who treats or repackages wastes shall:~~

~~(a) Acknowledge receipt of the waste from the generator within one week of receipt by returning a signed copy of the manifest.~~

~~(b) Prepare a new manifest that meets the requirements of subsections (1), (2), and (3) of this section. Preparation of the new manifest reflects that the processor is responsible for the waste;~~

~~(c) Prepare all wastes so that the waste is classified according to WAC 246-249-040 and meets the waste characteristics requirement in WAC 246-249-050.~~

~~(d) Label each package of waste to identify whether it is Class A waste, Class B waste, or Class C waste, in accordance with WAC 246-249-040 and 246-249-060.~~

~~(e) A quality control program shall be conducted to assure compliance with WAC 246-249-040 and 246-249-050. The program shall include management evaluation of audits;~~

~~(f) Forward a copy of the new manifest to the disposal site operator or waste broker at the time of shipment, or deliver to a broker at the time the waste is collected, obtaining acknowledgement of receipt in the form of a signed copy of the manifest by the broker.~~

~~(g) Include the new manifest with the shipment;~~

~~(h) Retain copies of the original manifests and new manifests with documentation of acknowledgement of receipt as the record of transfer of licensed material required by these regulations.~~

~~(i) For any shipment or part of a shipment for which acknowledgement is not received within the times set forth in this section, conduct an investigation in accordance with subsection (8) of this section.~~

~~(7) The land disposal facility operator shall:~~

~~(a) Acknowledge receipt of the waste within one week of receipt by returning a signed copy of the manifest to the shipper. The shipper to be notified is the licensee who last possessed the waste and transferred the waste to the operator. The returned copy of the manifest shall indicate any discrepancies between materials listed on the manifest and materials received;~~

~~(b) Maintain copies of all completed manifests until the agency authorizes their disposition; and~~

~~(c) Notify the shipper (i.e., the generator or the broker) and the agency when any shipment or part of a shipment has not arrived within sixty days after the advanced manifest was received.~~

~~(8) Any shipment or part of a shipment for which acknowledgement is not received within the time set forth in this section must:~~

~~(a) Be investigated by the shipper if the shipper has not received notification of receipt within twenty days after transfer; and~~

~~(b) Be traced and reported. The investigation shall include tracing the shipment and filing a report with the agency. Each licensee who conducts a trace investigation shall file a written report with the agency within two weeks of completion of the investigation.)) The requirements of this section are designed to control transfers of low-level radioactive waste by any waste generator, waste collector, or waste processor licensee who ships low-level waste either directly, or indirectly through a waste collector or waste processor, to a licensed low-level waste land disposal facility; establish a manifest tracking system; and supplement existing requirements concerning transfers and recordkeeping for those wastes.~~

(1) Effective March 1, 1998, each shipment of radioactive waste intended for disposal at a licensed land disposal facility in the state of Washington must be accompanied by a uniform low-level radioactive waste shipment manifest.

(2) Any licensee shipping radioactive waste intended for ultimate disposal at a licensed land disposal facility must document the information required on NRC's Uniform Low-Level Radioactive Waste Manifest and transfer this recorded manifest information to the intended consignee in accordance with this section.

(a) Each shipment manifest must include a certification by the waste generator as specified in this section.

(b) Each person involved in the transfer for disposal and disposal of waste, including the waste generator, waste collector, waste processor, and disposal facility operator, shall comply with the requirements specified in this section.

(c) When recording information on shipment manifests, information must be recorded in the International System of Units (SI) or in SI and units of curie, rad, rem, including multiples and subdivisions.

(3) A waste generator, collector, or processor who transports, or offers for transportation, low-level radioactive waste intended for ultimate disposal at a licensed low-level radioactive waste land disposal facility must prepare a manifest reflecting information requested on applicable NRC Forms 540 (Uniform Low-Level Radioactive Waste Manifest (Shipping Paper)) and 541 (Uniform Low-Level Radioactive Waste Manifest (Container and Waste Description)) and, if necessary, on an applicable NRC Form 542 (Uniform Low-Level Radioactive Waste Manifest (Manifest Index and Regional Compact Tabulation)). NRC Forms 540 and 540A must be completed and must physically accompany the pertinent low-level waste shipment. Upon agreement between shipper and consignee, NRC Forms 541 and 541A and 542 and 542A may be completed, transmitted, and stored in electronic media with the capability for producing legible, accurate, and complete records on the respective forms. Licensees are not required by the department to comply with the manifesting requirements of this section when they ship:

(a) LLW for processing and expect its return (i.e., for storage under their license) prior to disposal at a licensed land disposal facility;

(b) LLW that is being returned to the licensee who is the "waste generator" or "generator," as defined in this part; or

(c) Radioactively contaminated material to a "waste processor" that becomes the processor's "residual waste."

For guidance in completing these forms, refer to the instructions that accompany the forms. Copies of manifests required by this section may be legible carbon copies, photocopies, or computer printouts that reproduce the data in the format of the uniform manifest.

This section includes information requirements of the U.S. Department of Transportation, as codified in 49 CFR Part 172. Information on hazardous, medical, or other waste, required to meet Environmental Protection Agency regulations, as codified in 40 CFR Parts 259, 261 or elsewhere, is not addressed in this section, and must be provided on the required EPA forms. However, the required EPA forms must accompany the Uniform Low-Level Radioactive Waste Manifest required by this section.

(4) Information requirements.

(a) General information.

The shipper of the radioactive waste, shall provide the following information on the uniform manifest:

(i) The name, facility address, and telephone number of the licensee shipping the waste;

(ii) An explicit declaration indicating whether the shipper is acting as a waste generator, collector, processor, or a combination of these identifiers for purposes of the manifested shipment; and

(iii) The name, address, and telephone number, or the name and EPA identification number for the carrier transporting the waste.

(b) Shipment information.

The shipper of the radioactive waste shall provide the following information regarding the waste shipment on the uniform manifest:

(i) The date of the waste shipment;

(ii) The total number of packages/disposal containers;

(iii) The total disposal volume and disposal weight in the shipment;

(iv) The total radionuclide activity in the shipment;

(v) The activity of each of the radionuclides H-3, C-14, Tc-99, and I-129 contained in the shipment; and

(vi) The total masses of U-233, U-235, and plutonium in special nuclear material, and the total mass of uranium and thorium in source material.

(c) Disposal container and waste information.

The shipper of the radioactive waste shall provide the following information on the uniform manifest regarding the waste and each disposal container of waste in the shipment:

(i) An alphabetic or numeric identification that uniquely identifies each disposal container in the shipment;

(ii) A physical description of the disposal container, including the manufacturer and model of any high integrity container;

(iii) The volume displaced by the disposal container;

(iv) The gross weight of the disposal container, including the waste;

(v) For waste consigned to a disposal facility, the maximum radiation level at the surface of each disposal container;

(vi) A physical and chemical description of the waste;

(vii) The total weight percentage of chelating agent for any waste containing more than 0.1% chelating agent by weight, plus the identity of the principal chelating agent;

(viii) The approximate volume of waste within a container;

(ix) The sorbing, stabilization, or solidification media, if any, and the identity of the solidification or stabilization media vendor and brand name;

(x) The identities and activities of individual radionuclides contained in each container, the masses of U-233, U-235, and plutonium in special nuclear material, and the masses of uranium and thorium in source material. For discrete waste types (i.e., activated materials, contaminated equipment, mechanical filters, sealed source/devices, and wastes in solidification/stabilization media), the identities and activities of individual radionuclides associated with or contained on these waste types within a disposal container shall be reported;

(xi) The total radioactivity within each container; and

(xii) For wastes consigned to a disposal facility, the classification of the waste pursuant to this chapter. Waste not meeting the structural stability requirements of this chapter must be identified.

(d) Uncontainerized waste information.

The shipper of the radioactive waste shall provide the following information on the uniform manifest regarding a waste shipment delivered without a disposal container:

(i) The approximate volume and weight of the waste;

(ii) A physical and chemical description of the waste;

(iii) The total weight percentage of chelating agent if the chelating agent exceeds 0.1% by weight, plus the identity of the principal chelating agent;

(iv) For waste consigned to a disposal facility, the classification of the waste pursuant to this chapter. Waste not meeting the structural stability requirements of this chapter must be identified;

(v) The identities and activities of individual radionuclides contained in the waste, the masses of U-233, U-235, and plutonium in special nuclear material, and the masses of uranium and thorium in source material; and

(vi) For wastes consigned to a disposal facility, the maximum radiation levels at the surface of the waste.

(e) Multigenerator disposal container information.

This subsection applies to disposal containers enclosing mixtures of waste originating from different generators. (Note: The origin of the LLW resulting from a processor's activities may be attributable to one or more "generators," including "waste generators." It also applies to mixtures of wastes shipped in an uncontainerized form, for which portions of the mixture within the shipment originate from different generators.)

(i) For homogeneous mixtures of waste, such as incinerator ash, provide waste description applicable to the mixture and the volume of the waste attributed to each generator.

(ii) For heterogeneous mixtures of waste, such as the combined products from a large compactor, identify each generator contributing waste to the disposal container, and, for discrete waste types (i.e., activated materials, contaminated equipment, mechanical filters, sealed source/devices, and wastes in solidification/stabilization media), the identities and activities of individual radionuclides contained on these

waste types within the disposal container. For each generator, provide the following:

(A) The volume of waste within the disposal container;
(B) A physical and chemical description of the waste, including the stabilization or solidification agent, if any;

(C) The total weight percentage of chelating agents for any disposal container containing more than 0.1% chelating agent by weight, plus the identity of the principal chelating agent;

(D) The sorbing, solidification, or stabilization media, if any, and the identity of the stabilization media vendor and brand name, if the media is claimed to meet stability requirements in WAC 246-249-050(2); and

(E) Radionuclide identities and activities contained in the waste, the masses of U-233, U-235, and plutonium in special nuclear material, and the masses of uranium and thorium in source material if contained in the waste.

(5) Certification.

An authorized representative of the waste generator, processor, or collector shall certify by signing and dating the shipment manifest that the transported materials are properly classified, described, packaged, marked, and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation, the U.S. Nuclear Regulatory Commission, and the department. A collector in signing the certification is certifying that nothing has been done to the collected waste which would invalidate the waste generator's certification.

(6) Control and tracking.

(a) Any licensee who transfers radioactive waste to a land disposal facility or a licensed waste collector shall comply with the requirements in (a)(i) through (ix) of this subsection. Any licensee who transfers waste to a licensed waste processor for waste treatment or repackaging shall comply with the requirements of (a)(iv) through (ix) of this section. A licensee shall:

(i) Prepare all wastes so that the waste is classified according to WAC 246-249-040 and meets the waste characteristics requirements in WAC 246-249-050;

(ii) Label each disposal container (or transport package if potential radiation hazards preclude labeling of the individual disposal container) of waste to identify whether it is Class A waste, Class B waste, Class C waste, or greater than Class C waste, in accordance with WAC 246-249-040;

(iii) Conduct a quality assurance program to assure compliance with WAC 246-249-040 and 246-249-050 (the program must include management evaluation of audits);

(iv) Prepare the NRC Uniform Low-Level Radioactive Waste Manifest as required by this section;

(v) Forward a copy or electronically transfer the Uniform Low-Level Radioactive Waste Manifest to the intended consignee so that either receipt of the manifest precedes the LLW shipment or the manifest is delivered to the consignee with the waste at the time the waste is transferred to the consignee. Using both methods is also acceptable;

(vi) Include NRC Form 540 (and NRC Form 540A, if required) with the shipment regardless of the option chosen in (a)(v) of this subsection;

(vii) Receive acknowledgement of the receipt of the shipment in the form of a signed copy of NRC Form 540;

(viii) Retain a copy of or electronically store the Uniform Low-Level Radioactive Waste Manifest and documentation of acknowledgement of receipt as the record of transfer of licensed material as required by these regulations; and

(ix) For any shipments or any part of a shipment for which acknowledgement of receipt has not been received within the times set forth in this section, conduct an investigation in accordance with (e) of this subsection.

(b) Any waste collector licensee who handles only repackaged waste shall:

(i) Acknowledge receipt of the waste from the shipper within one week of receipt by returning a signed copy of NRC Form 540;

(ii) Prepare a new manifest to reflect consolidated shipments that meet the requirements of this section. The waste collector shall ensure that, for each container of waste in the shipment, the manifest identifies the generator of that container of waste;

(iii) Forward a copy or electronically transfer the Uniform Low-Level Radioactive Waste Manifest to the intended consignee so that either receipt of the manifest precedes the LLW shipment, or the manifest is delivered to the consignee with the waste at the time the waste is transferred to the consignee. Using both methods is also acceptable;

(iv) Include NRC Form 540 (and NRC Form 540A, if required) with the shipment regardless of the option chosen in (b)(iii) of this subsection;

(v) Receive acknowledgement of the receipt of the shipment in the form of a signed copy of NRC Form 540;

(vi) Retain a copy of or electronically store the Uniform Low-Level Radioactive Waste Manifest and documentation of acknowledgement of receipt as the record of transfer of licensed material as required by these regulations;

(vii) For any shipments or any part of a shipment for which acknowledgement of receipt has not been received within the times set forth in this section, conduct an investigation in accordance with this section; and

(viii) Notify the shipper and the department when any shipment, or part of a shipment, has not arrived within sixty days after receipt of an advance manifest, unless notified by the shipper that the shipment has been canceled.

(c) Any licensed waste processor who treats or repackages waste shall:

(i) Acknowledge receipt of the waste from the shipper within one week of receipt by returning a signed copy of NRC Form 540;

(ii) Prepare a new manifest that meets the requirements of this section. Preparation of the new manifest reflects that the processor is responsible for meeting these requirements. For each container of waste in the shipment, the manifest shall identify the waste generators, the preprocessed waste volume, and the other information as required in subsection (4)(e) of this section;

(iii) Prepare all wastes so that the waste is classified according to WAC 246-249-040 and meets the waste characteristics requirements in WAC 246-249-050;

(iv) Label each package of waste to identify whether it is Class A waste, Class B waste, or Class C waste, in accordance with WAC 246-249-040 and 246-249-060;

(v) Conduct a quality assurance program to assure compliance with WAC 246-249-040 and 246-249-050 (the program shall include management evaluation of audits);

(vi) Forward a copy or electronically transfer the Uniform Low-Level Radioactive Waste Manifest to the intended consignee so that either receipt of the manifest precedes the LLW shipment, or the manifest is delivered to the consignee with the waste at the time the waste is transferred to the consignee. Using both methods is also acceptable;

(vii) Include NRC Form 540 (and NRC Form 540A, if required) with the shipment regardless of the option chosen in (c)(vi) of this subsection;

(viii) Receive acknowledgement of the receipt of the shipment in the form of a signed copy of NRC Form 540;

(ix) Retain a copy of or electronically store the Uniform Low-Level Radioactive Waste Manifest and documentation of acknowledgement of receipt as the record of transfer of licensed material as required by these regulations;

(x) For any shipment or any part of a shipment for which acknowledgement of receipt has not been received within the times set forth in this section, conduct an investigation in accordance with (e) of this subsection; and

(xi) Notify the shipper and the department when any shipment, or part of a shipment, has not arrived within sixty days after receipt of an advance manifest, unless notified by the shipper that the shipment has been canceled.

(d) The land disposal facility operator shall:

(i) Acknowledge receipt of the waste within one week of receipt by returning, as a minimum, a signed copy of NRC Form 540 to the shipper. The shipper to be notified is the licensee who last possessed the waste and transferred the waste to the operator. If any discrepancy exists between materials listed on the Uniform Low-Level Radioactive Waste Manifest and materials received, copies or electronic transfer of the affected forms must be returned indicating the discrepancy;

(ii) Maintain copies of all completed manifests and electronically store the information required by WAC 246-250-600(8) until the license is terminated; and

(iii) Notify the shipper and the department when any shipment, or part of a shipment, has not arrived within sixty days after receipt of an advance manifest, unless notified by the shipper that the shipment has been canceled.

(e) Any shipment or part of a shipment for which acknowledgement is not received within the times set forth in this section must:

(i) Be investigated by the shipper if the shipper has not received notification or receipt within twenty days after transfer; and

(ii) Be traced and reported. The investigation shall include tracing the shipment and filing a report with the department. Each licensee who conducts a trace investigation shall file a written report with the department within two weeks of completion of the investigation.

AMENDATORY SECTION (Amending Order 187, filed 8/7/91, effective 9/7/91)

WAC 246-250-600 Maintenance of records, reports, and transfers. (1) Each licensee shall maintain any records and make any reports in connection with the licensed

activities as may be required by the conditions of the license or by the rules, regulations, and orders of the department.

(2) Records which are required by these regulations or by license conditions shall be maintained for a period specified by the appropriate regulations or by license condition. If a retention period is not otherwise specified, these records must be maintained and transferred to the officials specified in subsection (4) of this section as a condition of license termination unless the department otherwise authorizes their disposition.

(3) Records which shall be maintained pursuant to this chapter may be the original or a reproduced copy or microfilm if this reproduced copy or microfilm is capable of producing copy that is clear and legible at the end of the required retention period.

(4) Notwithstanding subsections (1) through (3) of this section, copies of records of the location and the quantity of wastes contained in the disposal site must be transferred upon license termination to the chief executive of the nearest municipality, the chief executive of the county in which the facility is located, the county zoning board or land development and planning agency, the state governor, the United States Department of Energy, and other state, local, and federal governmental agencies as designated by the department at the time of license termination.

(5) Following receipt and acceptance of a shipment of radioactive waste, the licensee shall record the date ~~((of disposal of the waste, the specific location of waste in the disposal site, the condition of the waste packages as received, any discrepancies between materials listed on the manifest and those received, and any evidence of leaking or damaged packages or radiation or contamination levels in excess of limits specified in United States Department of Transportation and state of Washington regulations. The licensee shall briefly describe any repackaging operations of any of the waste packages included in the shipment, plus any other information required by the department as a license condition))~~ that the shipment is received at the disposal facility, the date of disposal of the waste, a traceable shipment manifest number, a description of any engineered barrier or structural overpack provided for disposal of the waste, the location of disposal at the disposal site, the containment integrity of the waste disposal containers as received, any discrepancies between materials listed on the manifest and those received, the volume of any pallets, bracing, or other shipping or on-site generated materials that are contaminated, and are disposed of as contaminated or suspect materials, and any evidence of leaking or damaged disposal containers or radiation or contamination levels in excess of limits specified in U.S. Department of Transportation and state of Washington regulations. The licensee shall briefly describe any repackaging operations of any of the disposal containers included in the shipment, plus any other information required by the department as a license condition. The licensee shall retain these records until the department transfers or terminates the license that authorizes the activities described in these regulations.

(6) Each licensee authorized to dispose of waste received from other persons shall file a copy of its financial report or a certified financial statement annually with the department in order to update the information base for determining financial qualifications.

(7)(a) Each licensee authorized to dispose of waste received from other persons, pursuant to this chapter, shall submit annual reports to the department. Reports shall be submitted by the end of the first calendar quarter of each year for the preceding year.

(b) The reports shall include:

(i) Specification of the quantity of each of the principal contaminants released to unrestricted areas in liquid and in airborne effluents during the preceding year;

(ii) The results of the environmental monitoring program;

(iii) A summary of licensee disposal unit survey and maintenance activities;

(iv) A summary, by waste class, of activities and quantities of radionuclides disposed of;

(v) Any instances in which observed site characteristics were significantly different from those described in the application for a license; and

(vi) Any other information the department may require.

(c) If the quantities of waste released during the reporting period, monitoring results, or maintenance performed are significantly different from those expected, the report must cover this specifically.

(8) In addition to the other requirements of this section, the licensee shall store, or have stored, manifest and other information pertaining to receipt and disposal of radioactive waste in an electronic recordkeeping system.

(a) The manifest information that must be electronically stored is:

(i) That required in WAC 246-249-090 with the exception of shipper and carrier telephone numbers and shipper and consignee certifications; and

(ii) That information required in subsection (5) of this section.

(b) As specified in facility license conditions, the licensee shall have the capability to report the stored information, or subsets of this information, on a computer-readable medium.



WSR 98-03-003
PERMANENT RULES
BUILDING CODE COUNCIL

[Filed January 8, 1998, 8:32 a.m., effective July 1, 1998]

Date of Adoption: November 14, 1997.

Purpose: To adopt amendments to the Washington State Energy Code.

Citation of Existing Rules Affected by this Order:

Repealing WAC 51-11-606, 51-11-607, 51-11-608 and 51-11-1010; and amending WAC 51-11-101, 51-11-104, 51-11-201, 51-11-402, 51-11-502, 51-11-503, 51-11-504, 51-11-525, 51-11-527, 51-11-530, 51-11-541, 51-11-602, 51-11-625, 51-11-626, 51-11-627, 51-11-628, 51-11-629, 51-11-630, 51-11-701, 51-11-800, 51-11-1002, 51-11-1003, 51-11-1004, 51-11-1005, 51-11-1006, 51-11-1007, 51-11-1008, 51-11-1009, 51-11-1120, 51-11-1130, 51-11-1132, 51-11-1133, 51-11-1210, 51-11-1312, 51-11-1323, 51-11-1331, 51-11-1334, 51-11-1411, 51-11-1412, 51-11-1414, 51-11-1421, 51-11-1422, 51-11-1423, 51-11-1452, 51-11-1454, 51-11-1512, 51-11-1530, 51-11-1701, 51-11-2005, 51-11-2006, 51-11-2007, 51-11-99903, and 51-11-99904.

Statutory Authority for Adoption: RCW 19.27A.025, 19.27A.045.

Adopted under notice filed as WSR 97-16-110 on August 6, 1997.

Changes Other than Editing from Proposed to Adopted Version: 1. Inapplicable lighting language in Section 101 was deleted for clarification. This change resulted from testimony at the public hearing.

2. Unused definitions and references in Sections 201, 701, 1210, and 1701 were deleted for simplification. This change resulted from testimony at the public hearing.

3. Addresses were updated in Sections 800 and 99904 for accuracy.

4. Table 10-4A Default U-Factors for Exposed Floors was added to Table 10-4 Default U-Factors for Floors over Heated Plenums Crawlspace to correct a filing error which mistakenly replaced one table with the other. This change resulted from testimony at the public hearing.

5. The last two sentences in Section 1412.4.1 were deleted to eliminate a conflict with the Uniform Building Code. This change resulted from testimony at the public hearing.

6. Clarifying language was added to Section 1414.2 specifying insulation requirements for unheated equipment rooms with combustion air louvers. This change resulted from testimony at the public hearing.

7. Residential skylight requirements in Sections 201, 502.1.5, 502.2.1, Equation 1, Table 5-1, 602.7.2, Table 6-1 through 6-6 were revised, clarified and simplified. This change resulted from testimony at the public hearing.

Number of Sections Adopted in Order to Comply with Federal Statute: New 0, amended 0, repealed 0; Federal Rules or Standards: New 0, amended 5, repealed 0; or Recently Enacted State Statutes: New 0, amended 1, repealed 0.

Number of Sections Adopted at Request of a Nongovernmental Entity: New 0, amended 47, repealed 6.

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 53, repealed 6; Pilot Rule Making: New 0, amended 0, repealed 0; or Other Alternative Rule Making: New 0, amended 0, repealed 0.

Effective Date of Rule: July 1, 1998.

January 6, 1998

Mike McEnaney

Council Chair

AMENDATORY SECTION (Amending WSR 93-21-052, filed 10/18/93, effective 4/1/94)

WAC 51-11-0101 Section 101. Scope and general requirements.

101.1 Title: Chapters 1 through 10 of this Code shall be known as the "Washington State Residential Energy Code" and may be cited as such; and will be referred to herein as "this Code."

101.2 Purpose and Intent: The purpose of this Code is to provide minimum standards for new or altered buildings and structures or portions thereof to achieve efficient use and conservation of energy.

The purpose of this Code is not to create or otherwise establish or designate any particular class or group of persons who will or should be especially protected or benefitted by the terms of this Code.

It is intended that these provisions provide flexibility to permit the use of innovative approaches and techniques to achieve efficient use and conservation of energy. These provisions are structured to permit compliance with the intent of this Code by any one of the following three paths of design:

1. A systems analysis approach for the entire building and its energy-using sub-systems which may utilize renewable energy sources, Chapter 4.

2. A component performance approach for various building elements and mechanical systems and components, Chapter 5.

3. A prescriptive requirements approach, Chapter 6.

Compliance with any one of these approaches meets the intent of this Code. This Code is not intended to abridge any safety or health requirements required under any other applicable codes or ordinances.

The provisions of this Code do not consider the efficiency of various energy forms as they are delivered to the building envelope. A determination of delivered energy efficiencies in conjunction with this Code will provide the most efficient use of available energy in new building construction.

101.3 Scope: This Code sets forth minimum requirements for the design of new buildings and structures that provide facilities or shelter for residential occupancies by regulating their exterior envelopes and the selection of their HVAC, service water heating, ~~(electrical distribution and~~

~~illuminating~~) systems and equipment for efficient use and conservation of energy.

Buildings shall be designed to comply with the requirements of either Chapter 4, 5, or 6 of this Code.

101.3.1 Exempt Buildings: Buildings and structures or portions thereof meeting any of the following criteria shall be exempt from the building envelope requirements of sections 502 and ~~((sections))~~ 602 ~~((and 605))~~, but shall comply with all other requirements for building mechanical systems, and service water heating ~~((and lighting systems))~~.

101.3.1.1: Buildings and structures or portions thereof whose peak design rate of energy usage is less than three and four tenths (3.4) Btu/h per square foot or one point zero (1.0) watt per square foot of floor area for space conditioning requirements.

101.3.1.2: Buildings and structures or portions thereof which are neither heated according to the definition of heated space in Chapter 2, nor cooled by a nonrenewable energy source, provided that the nonrenewable energy use for space conditioning complies with requirements of section 101.3.1.1.

101.3.1.3: Greenhouses isolated from any conditioned space and not intended for occupancy.

101.3.2 Application to Existing Buildings: Additions, historic buildings, changes of occupancy or use, and alterations or repairs shall comply with the requirements in the subsections below.

EXCEPTION: The building official may approve designs of alterations or repairs which do not fully conform with all of the requirements of this Code where in the opinion of the building official full compliance is physically impossible and/or economically impractical and:

1. The alteration or repair improves the energy efficiency of the building; or
2. The alteration or repair is energy efficient and is necessary for the health, safety, and welfare of the general public.

In no case, shall building envelope requirements or mechanical system requirements be less than those requirements in effect at the time of the initial construction of the building.

101.3.2.1 Additions to Existing Buildings: Additions to existing buildings or structures may be made to such buildings or structures without making the entire building or structure comply, provided that the new additions shall conform to the provisions of this Code.

EXCEPTION: New additions which do not fully comply with the requirements of this Code and which have a floor area which is less than seven hundred fifty square feet shall be approved provided that improvements are made to the existing occupancy to compensate for any deficiencies in the new addition. Compliance shall be demonstrated by either systems analysis or component performance calculations. The nonconforming addition and upgraded, existing occupancy shall have an energy budget or heat loss which is less than or equal to the unimproved existing building, with the addition designed to comply with this Code.

101.3.2.2 Historic Buildings: The building official may modify the specific requirements of this Code for historic buildings and require in lieu thereof alternate requirements which will result in a reasonable degree of energy efficiency. This modification may be allowed for those buildings which

have been specifically designated as historically significant by the state or local governing body, or listed in The National Register of Historic Places or which have been determined to be eligible for listing.

101.3.2.3 Change of Occupancy or Use:

Any Other than Group R Occupancy which is converted to Group R Occupancy shall be brought into full compliance with this Code.

101.3.2.4 Alterations and Repairs: All alterations and repairs to buildings or portions thereof originally constructed subject to the requirements of this Code shall conform to the provisions of this Code without exception. For all other existing buildings, initial tenant alterations shall comply with the new construction requirements of this Code. Other alterations and repairs may be made to existing buildings and moved buildings without making the entire building comply with all of the requirements of this Code for new buildings, provided the following requirements are met:

101.3.2.5 Building Envelope: The result of the alterations or repairs both:

1. Improves the energy efficiency of the building, and
2. Complies with the overall average thermal transmittance values of the elements of the exterior building envelope in Table 5-1 of Chapter 5 or the nominal R-values and glazing requirements of the reference case in Tables 6-1 to 6-6.

EXCEPTIONS:

1. Untested storm windows may be installed over existing glazing for an assumed (~~(U-value)~~) U-factor of 0.90, however, where glass and sash are being replaced in Group R Occupancy, glazing ~~((with a maximum area weighted average U-value of 0.40 shall be installed where there is an electric resistance space heating system and glazing with a maximum U-value of 0.65 (Climate Zone I) and 0.60 (Climate Zone II) shall be installed where there is any other space heating system))~~ shall comply with the appropriate reference case in Table 6-1 through Table 6-6.

2. Where the structural elements of the altered portions of roof/ceiling, wall or floor are not being replaced, these elements shall be deemed to comply with this Code if all existing framing cavities which are exposed during construction are filled to the full depth with batt insulation or insulation having an equivalent nominal R-value while, for roof/ceilings, maintaining the required space for ventilation. Existing walls and floors without framing cavities need not be insulated. Existing roofs shall be insulated to the requirements of this Code if

- a. The roof is uninsulated or insulation is removed to the level of the sheathing, or
- b. All insulation in the roof/ceiling was previously installed exterior to the sheathing or nonexistent.

101.3.2.6 Building Mechanical Systems: Those parts of systems which are altered or replaced shall comply with section 503 of this Code.

101.3.2.7 Service Water Heating: Those parts of systems which are altered or replaced shall comply with section 504.

101.3.2.8 Reserved.

101.3.3 Mixed Occupancy: When a building houses more than one occupancy, each portion of the building shall conform to the requirements for the occupancy housed therein. Where approved by the building official, where minor accessory uses do not occupy more than ten percent

of the area of any floor of a building, the major use may be considered the building occupancy.

101.4 Amendments by Local Government: Except as provided in RCW 19.27A.020(7), this Code shall be the maximum and minimum energy code for Group R Occupancy in each town, city and county, no later than July 1, 1991.

AMENDATORY SECTION (Amending WSR 91-01-112, filed 12/19/90, effective 7/1/91)

WAC 51-11-0104 Plans and specifications.

104.1 General: If required by the building official, plans and specifications shall be submitted in support of an application for a building permit. If required by the building official, plans and specifications shall be stamped and authenticated by a registered design professional currently licensed in the state of Washington. If required by the building official, all energy calculations submitted under the provisions of Chapter 4 for Other than Group R Occupancy shall be stamped and authenticated by an engineer or architect licensed to practice by the state. All plans and specifications, together with supporting data, shall be submitted to the building official prior to issuance of a building permit.

104.2 Details: The plans and specifications shall show in sufficient detail all pertinent data and features of the building and the equipment and systems as herein governed including, but not limited to: design criteria, exterior envelope component materials, ((U-values)) U-factors of the envelope systems, R-values of insulating materials, size and type of apparatus and equipment, equipment and systems controls and other pertinent data to indicate compliance with the requirements of this Code.

The building official may accept the professional stamp of an architect or engineer licensed to do business by the state in lieu of a plan and specification check if the engineer or architect stipulates to the best of his knowledge, understanding and belief, the design meets the requirements of this Code.

AMENDATORY SECTION (Amending WSR 94-05-059, filed 2/10/94, effective 4/1/94)

WAC 51-11-0201 General definitions.

201.1 Application of Terms: For the purposes of this Code, certain abbreviations, terms, phrases, words and their derivatives, shall be as set forth in this chapter. Where terms are not defined, they shall have their ordinary accepted meanings within the context with which they are used. In the event there is a question about the definition of a term, the definitions for terms in the codes enumerated in RCW 19.27.031 and the edition of Webster's dictionary referenced therein shall be considered as the sources for providing ordinarily accepted meanings.

((~~AAMA: American Architectural Manufacturers Association~~))

Addition: See the Washington State Building Code.

Advanced framed ceiling: Advanced framing assumes full and even depth of insulation extending to the outside edge of exterior walls. (See Standard Framing.)

Advanced framed walls: Studs framed on twenty-four inch centers with double top plate and single bottom plate. Corners use two studs or other means of fully insulating corners, and one stud is used to support each header. Headers consist of double 2X material with R-10 insulation between the header and exterior sheathing. Interior partition wall/exterior wall intersections are fully insulated in the exterior wall.

AFUE. Annual fuel utilization efficiency: Unlike steady state conditions, this rating is based on average usage including on and off cycling as set out in the standardized Department of Energy Test Procedures.

Air conditioning, comfort: The process of treating air to control simultaneously its temperature, humidity, cleanliness and distribution to meet requirements of the conditioned space.

ASHRAE: American Society of Heating, Refrigerating and Air Conditioning Engineers, Inc.

ASTM: American Society for Testing and Materials

Automatic: Self-acting, operating by its own mechanism when actuated by some impersonal influence, as for example, a change in current strength, pressure, temperature or mechanical configuration. (See **Manual**.)

Below grade walls: Walls or the portion of walls which are entirely below the finish grade or which extend two feet or less above the finish grade.

Building, existing: See the Washington State Building Code.

Boiler capacity: The rate of heat output in Btu/h measured at the boiler outlet, at the design inlet and outlet conditions and rated fuel/energy input.

Building envelope: The elements of a building which enclose conditioned spaces through which thermal energy may be transferred to or from the exterior or to or from spaces exempted by the provisions of Section 101.3.1.

Building official: The official authorized to act in behalf of a jurisdiction code enforcement agency or its authorized representative.

Building project: A building or group of buildings, including on-site energy conversion or electric-generating facilities, which utilize a single submittal for a construction permit or are within the boundary of a contiguous area under one ownership.

Comfort envelope: The area on a psychrometric chart enclosing all those conditions described in Standard RS-4, Figure No. 1, as being comfortable.

Conditioned space: All spaces which are provided with heated and/or cooled air or which are capable of being maintained at temperatures over fifty degrees F during the heating season, including adjacent connected spaces separated by an uninsulated component (e.g., basements, utility rooms, garages, corridors).

Cooled space: Space within a building which is provided with a positive cooling supply.

COP - Coefficient of performance: The ratio of the rate of net heat output (heating mode) or heat removal (cooling mode) to the rate of total on-site energy input to the heat pump, expressed in consistent units and under designated rating conditions. (See Net Heat Output, Net Heat Removal, Total On-Site Energy Input.)

Deadband: The temperature range in which no heating or cooling is used.

Degree day, heating: A unit, based upon temperature difference and time, used in estimating fuel consumption and specifying nominal heating load of a building in winter. For any one day when the mean temperature is less than sixty-five degrees F there exist as many degree days as there are Fahrenheit degrees difference in temperature between the mean temperature for the day and sixty-five degrees F.

Door: An operable opening area in the shell of a conditioned space, excluding sliding glass doors, which is designed and used as a means of ingress and egress. A door may also include a double door one of which is fixed and one of which is operable.

Door area: Total area of door measured using the rough opening and including the door and frame.

Dwelling unit: See the Washington State Building Code.

EER. Energy efficiency ratio: The ratio of net equipment cooling capacity in Btu/h to total rate of electric input in watts under designated operating conditions.

Efficiency, HVAC system: The ratio of useful energy (at the point of use) to the energy input for a designated time period, expressed in percent.

Emissivity: The ability to absorb infrared radiation. A low emissivity implies a higher reflectance of infrared radiation.

Energy: The capacity for doing work; taking a number of forms which may be transformed from one into another, such as thermal (heat), mechanical (work), electrical and chemical; in customary units, measured in kilowatt-hours (kWh) or British thermal units (Btu). (See **New energy**.)

Energy, recovered: (See **Recovered energy**.)

Exterior envelope: (See **Building envelope**.)

Floor over unconditioned space: A floor which separates a conditioned space from an unconditioned space which is buffered from exterior ambient conditions including vented crawl spaces and unconditioned basements or other similar spaces, or exposed to exterior ambient conditions including open parking garages and enclosed garages which are mechanically ventilated.

((F-Value)) F-Factor: The perimeter heat loss factor expressed in Btu/hr•ft•°F.

F-Value: (See **F-Factor**.)

Garden window: A multi-sided glazing product that projects beyond the plane of the wall.

Glazed wall system: A category of site assembled fenestration products used in the NFRC 100 and NFRC 200 rating procedures that include curtainwalls.

Glazing: All areas, including the frames, in the shell of a conditioned space that let in natural light including windows, clerestories, skylights, sliding glass doors and glass block walls. The daylight opening area in all other doors shall be considered glazing for the purpose of calculating glazing area. The daylight opening area in all other doors is included in the door ((U-value)) **U-factor** and shall not be considered in calculations of glazing ((U-values)) **U-factors**.

Glazing area: Total area of the glazing measured using the rough opening, and including the glazing, sash, and frame. For sliding glass doors the glazing area is the rough opening area. For all other doors the glazing area is the daylight opening area.

Gross conditioned floor area: The horizontal projection of that portion of interior space which is contained

within exterior walls and which is conditioned directly or indirectly by an energy-using system, and which has an average height of five feet or greater, measured from the exterior faces.

Gross exterior wall area: The normal projection of the building envelope wall area bounding interior space which is conditioned by an energy-using system; includes opaque wall, window and door areas. The gross area of walls consists of all opaque wall areas, including foundation walls, between floor spandrels, peripheral edges of floors, window areas including sash, and door areas, where such surfaces are exposed to exterior ambient conditions and enclose a conditioned space including interstitial areas between two such spaces.

Gross floor area: The sum of the areas of the several floors of the building, including basements, cellars, mezzanine and intermediate floored tiers and penthouses of headroom height, measured from the exterior faces of exterior walls or from the center line of walls separating buildings, but excluding: Covered walkways, open roofed-over areas, porches and similar spaces. Pipe trenches, exterior terraces or steps, chimneys, roof overhangs and similar features.

Gross roof/ceiling area: The sum of the areas of the roof/ceiling assembly, consisting of the total interior surface area of all elements, including skylights, which enclose a conditioned space.

Guest room: See the Washington State Building Code.

Heat: The form of energy that is transferred by virtue of a temperature difference.

Heat storage capacity: The physical property of materials (mass) located inside the building envelope to absorb, store, and release heat.

Heated space: Space within a building which is provided with a positive heating supply. Finished living space within a basement or registers or heating devices designed to supply heat to a basement space shall automatically define that space as heated space. (See **Positive Heating Supply**.)

HSPF. Heating season performance factor: The total heating output (in Btu) of a heat pump during its normal annual usage period for heating divided by the total (watt hour) electric power input during the same period, as determined by test procedures consistent with the U.S. Department of Energy "Test Procedure for Central Air Conditioners, Including Heat Pumps" published in the December 27, 1979, Federal Register, Vol 44, No. 24, IOCFR. 430. When specified in Btu per watt hour an HSPF of 6.826 is equivalent to a COP of 2.0.

Humidistat: A regulatory device, actuated by changes in humidity, used for automatic control of relative humidity.

HVAC: Heating, ventilating and air conditioning.

HVAC system components: HVAC system components provide, in one or more factory-assembled packages, means for chilling and/or heating water with controlled temperature for delivery to terminal units serving the conditioned spaces of the buildings. Types of HVAC system components include, but are not limited to, water chiller packages, reciprocating condensing units and water source (hydronic) heat pumps. (See **HVAC system equipment**.)

HVAC system efficiency: (See **Efficiency, HVAC system**.)

HVAC system equipment: HVAC system equipment provides, in one (single package) or more (split system) factory-assembled packages, means for air circulation, air cleaning, air cooling with controlled temperature and dehumidification; and optionally, either alone or in combination with a heating plant, the functions of heating and humidifying. The cooling function may be either electrically or heat operated and the refrigerant condenser may be air, water or evaporatively cooled. Where the equipment is provided in more than one package, the separate packages shall be designed by the manufacturer to be used together. The equipment may provide the heating function as a heat pump or by the use of electric elements. (The word "equipment" used without modifying adjective may, in accordance with common industry usage, apply either to HVAC system equipment or HVAC system components.)

Illumination: The density of the luminous flux incident on a surface; it is the quotient of the luminous flux by the area of the surface when the latter is uniformly illuminated.

Infiltration: The uncontrolled inward air leakage through cracks and interstices in any building element and around windows and doors of a building caused by the pressure effects of wind and/or the effect of differences in the indoor and outdoor air density.

Insulation baffle: A rigid material, resistant to wind driven moisture, the purpose of which is to allow air to flow freely into the attic or crawl space and to prevent insulation from blocking the ventilation of these spaces, or the loss of insulation. Example materials for this purpose are sheet metal, or wax impregnated cardboard.

Luminaire: A complete lighting unit consisting of a lamp or lamps together with the parts designed to distribute the light, to position and protect the lamps and to connect the lamps to the electric power supply.

Manual: Capable of being operated by personal intervention. (See **Automatic**.)

Net heat output: The change in the total heat content of the air entering and leaving the equipment (not including supplementary heat and heat from boilers).

Net heat removal: The total heat content of the air entering and leaving the equipment (without heat) or the difference in total heat content of the water or refrigerant entering and leaving the component.

New energy: Energy, other than recovered energy, utilized for the purpose of heating or cooling. (See **energy**.)

Nominal R-value: The thermal resistance of insulation as specified by the manufacturer according to recognized trade and engineering standards.

Nonrenewable energy sources: All energy sources that are not renewable energy sources including natural gas, oil, coal, wood, liquified petroleum gas, steam, and any utility-supplied electricity.

Occupancy: See the Washington State Building Code.

Opaque envelope areas: All exposed areas of a building envelope which enclose conditioned space, except openings for windows, skylights, doors, glazing and building service systems.

Open blown: Loose fill insulation pneumatically installed in an unconfined attic space.

Outdoor air: Air taken from the outdoors and, therefore, not previously circulated through the system.

Packaged terminal air conditioner: A factory-selected combination of heating and cooling components, assemblies or sections intended to serve a room or zone. (For the complete technical definition, see Standard RS-10.)

Packaged terminal heat pump: A factory-selected combination of heating and cooling components, assemblies or sections intended for application in an individual room or zone. (For the complete technical definition, see Standard RS-21.)

Permeance (perm): The ability of a material of specified thickness to transmit moisture in terms of amount of moisture transmitted per unit time for a specified area and differential pressure (grains per hour•ft²•inches of HG). Permeance may be measured using ASTM E-96-72 or other approved dry cup method as specified in RS-1.

Pool cover: A vapor-retardant cover which lies on or at the surface of the pool.

Positive cooling supply: Mechanical cooling deliberately supplied to a space, such as through a supply register. Also, mechanical cooling indirectly supplied to a space through uninsulated surfaces of space cooling components, such as evaporator coil cases and cooling distribution systems which are capable of maintaining air temperatures within the space of eighty-five degrees F, or lower, at the exterior design conditions specified in Section 302.1. To be considered exempt from inclusion in this definition, such surfaces shall comply with the insulation requirements of this Code.

Positive heating supply: Heat deliberately supplied to a space by design, such as a supply register, radiator or heating element. Also, heat indirectly supplied to a space through uninsulated surfaces of service water heaters and space heating components, such as furnaces, boilers and heating and cooling distributions systems which are capable of maintaining air temperature within the space of fifty degrees F, or higher, at the exterior design conditions specified in Section 302.1. To be considered exempt from inclusion in this definition, such surfaces shall comply with the insulation requirements of this Code.

Power: In connection with machines, the time rate of doing work. In connection with the transmission of energy of all types, the rate at which energy is transmitted; in customary units, it is measured in watts (W) or British Thermal Units per hour (Btu/h).

Public facility rest room: A rest room used by the transient public on a regular (rather than casual) basis. Examples include rest rooms in service stations, airports, train terminals and convention halls. Rest rooms incorporated with private guest rooms in hotels, motels or dormitories and rest room facilities intended for the use of employees and not usually used by the general public are not considered public facility rest rooms.

Radiant slab: A slab on grade containing heated pipes, ducts, or electric heating cables that constitute a radiant slab or portion thereof for a complete or partial heating of the structure.

Readily accessible: See the Washington State Mechanical Code.

Recooling: The removal of heat by sensible cooling of the supply air (directly or indirectly) that has been previously heated above the temperature to which the air is to be

supplied to the conditioned space for proper control of the temperature of that space.

Recovered energy: Energy utilized which would otherwise be wasted (i.e. not contribute to a desired end use) from an energy utilization system.

Reheat: The application of sensible heat to supply air that has been previously cooled below the temperature of the conditioned space by either mechanical refrigeration or the introduction of outdoor air to provide cooling.

Renewable energy sources: Renewable energy sources of energy (excluding minerals) are derived from: (1) incoming solar radiation, including but not limited to, natural daylighting and photosynthetic processes; (2) energy sources resulting from wind, waves and tides, lake or pond thermal differences; and (3) energy derived from the internal heat of the earth, including nocturnal thermal exchanges.

Reset: Adjustment of the set point of a control instrument to a higher or lower value automatically or manually to conserve energy.

Roof/ceiling assembly: A roof/ceiling assembly shall be considered as all components of the roof/ceiling envelope through which heat flows, thus creating a building transmission heat loss or gain, where such assembly is exposed exterior ambient conditions to and encloses a conditioned space. The gross area of a roof/ceiling assembly consists of the total interior surface of such assembly, including skylights.

Sequence: A consecutive series of operations.

Service systems: All energy-using systems in a building that are operated to provide services for the occupants or processes housed therein, including HVAC, service water heating, illumination, transportation, cooking or food preparation, laundering or similar functions.

Service water heating: Supply of hot water for domestic or commercial purposes other than comfort heating.

Shaded: Glazed area which is externally protected from direct solar radiation by use of devices permanently affixed to the structure or by an adjacent building, topographical feature, or vegetation.

Shall: Denotes a mandatory code requirement.

Single family: One and two family residential dwelling units with no more than two units in a single building.

Skylight: A glazing surface that has a slope of less than sixty degrees from the horizontal plane.

Slab-on-grade, exterior: Any portion of a slab floor in contact with the ground which is less than or equal to twenty-four inches below the final elevation of the nearest exterior grade.

Slab-below-grade: Any portion of a slab floor in contact with the ground which is more than twenty-four inches below the final elevation of the nearest exterior grade.

Small business: Any business entity (including a sole proprietorship, corporation, partnership, or other legal entity) which is owned and operated independently from all other businesses, which has the purpose of making a profit, and which has fifty or fewer employees, or which has a million dollars or less per year in gross sales, of window products.

Solar energy source: Source of natural daylighting and of thermal, chemical or electrical energy derived directly from conversion of incident solar radiation.

Solar heat gain coefficient (SHGC): The ratio of the solar heat gain entering the space through the glazing

product to the incident solar radiation. Solar heat gain includes directly transmitted solar heat and absorbed solar radiation which is then reradiated, conducted or convected into the space.

Standard framing: All framing practices not defined as "intermediate" or "advanced" shall be considered standard. (See Advanced framed ceiling, Advanced framed walls, Intermediate framed wall.)

Substantial contact: A condition where adjacent building materials are placed in a manner that proximal surfaces are contiguous, being installed and supported as to eliminate voids between materials, without compressing or degrading the thermal performance of either product.

System: A combination of central or terminal equipment or components and/or controls, accessories, interconnecting means, and terminal devices by which energy is transformed so as to perform a specific function, such as HVAC, service water heating or illumination.

Tapering: Installation of a reduced level of ceiling insulation at the eaves, due to reduced clearance.

Thermal by-pass: An area where the envelope surrounding the conditioned space is breached, or where an ineffective application compromises the performance of a thermal or infiltration barrier, increasing the structure's energy consumption by exposing finished surfaces to ambient conditions and additional heat transfer.

Thermal conductance (C): Time rate of heat flow through a body (frequently per unit area) from one of its bounding surfaces to the other for a unit temperature difference between the two surfaces, under steady conditions ($\text{Btu/hr}\cdot\text{ft}^2\cdot\text{°F}$).

Thermal resistance (R): The reciprocal of thermal conductance ($\text{hr}\cdot\text{ft}^2\cdot\text{°F/Btu}$).

Thermal transmittance (U): The coefficient of heat transmission (air to air). It is the time rate of heat flow per unit area and unit temperature difference between the warm side and cold side air films ($\text{Btu/hr}\cdot\text{ft}^2\cdot\text{°F}$). The ((U-value)) U-factor applies to the fractional combinations of different materials used in series along the heat flow path.

Thermal transmittance, overall ((U*)) (U_o): The overall (average) heat transmission of a gross area of the exterior building envelope ($\text{Btu/hr}\cdot\text{ft}^2\cdot\text{°F}$). The ((U*-value)) U_o-factor applies to the combined effect of the time rate of heat flows through the various parallel paths, such as windows, doors and opaque construction areas, comprising the gross area of one or more exterior building components, such as walls, floors or roof/ceiling.

Thermostat: An automatic control device actuated by temperature and designed to be responsive to temperature.

Total on-site energy input: The combination of all the energy inputs to all elements and accessories as included in the equipment components, including but not limited to, compressor(s), compressor sump heater(s), circulating pump(s), purge devices, fan(s), and the HVAC system component control circuit.

Transmission coefficient: The ratio of the solar heat gain through a glazing system to that of an unshaded single pane of double strength window glass under the same set of conditions.

((U-Value)) U-factor: (See thermal transmittance.)
U-Value: (See U-factor.)

Uniform Building Code: The Washington State Uniform Building Code as modified by the Washington State Building Code Council.

Uniform Mechanical Code: The Washington State Uniform Mechanical Code as modified by the Washington State Building Code Council.

Unitary cooling and heating equipment: One or more factory-made assemblies which include an evaporator or cooling coil, a compressor and condenser combination, and may include a heating function as well. Where such equipment is provided in more than one assembly, the separate assemblies shall be designed to be used together.

Unitary heat pump: One or more factory-made assemblies which include an indoor conditioning coil, compressor(s) and outdoor coil or refrigerant-to-water heat exchanger, including means to provide both heating and cooling functions. When such equipment is provided in more than one assembly, the separate assemblies shall be designed to be used together.

Vapor retarder: A layer of low moisture transmissivity material (not more than 1.0 perm dry cup) placed over the warm side (in winter) of insulation, over the exterior of below grade walls, and under floors as ground cover to limit the transport of water and water vapor through exterior walls, ceilings, and floors. Vapor retarding paint, listed for this application, also complies with this Code.

Vaulted ceilings: All ceilings where enclosed joist or rafter space is formed by ceilings applied directly to the underside of roof joists or rafters.

Ventilation: The process of supplying or removing air by natural or mechanical means to or from any space. Such air may or may not have been conditioned.

Ventilation air: That portion of supply air which comes from outside (outdoors) plus any recirculated air that has been treated to maintain the desired quality of air within a designated space.

Walls (exterior): Any member or group of members which defines the exterior boundaries or courts of a building and which have a slope of sixty degrees or greater with the horizontal plane, and separates conditioned from unconditioned space. Band joists between floors are to be considered a part of exterior walls.

Zone: A space or group of spaces within a building with heating and/or cooling requirements sufficiently similar so that comfort conditions can be maintained throughout by a single controlling device. Each dwelling unit in residential buildings shall be considered a single zone.

AMENDATORY SECTION (Amending WSR 94-05-059, filed 2/10/94, effective 4/1/94)

WAC 51-11-0402 Systems analysis.

402.1 Special Requirements for All Group R Occupancy:

402.1.1 Energy Budgets: Proposed buildings designed in accordance with this section shall be designed to use no more energy from non-renewable sources for space heating, and domestic hot water heating than a standard building whose enclosure elements and energy consuming systems are designed in accordance with section 502.2 of this Code for the appropriate climate zone, and heating system type.

Energy derived from renewable sources may be excluded from the total annual energy consumption attributed to the alternative building.

402.1.2 Calculation of Energy Consumption: The application for a building permit shall include documentation which demonstrates, using a calculation procedure as listed in Chapter 8, or an approved alternate, that the proposed building's annual space heating energy use does not exceed the annual space heating and water heating energy use of a standard building conforming to Chapter 5 of this Code for the appropriate climate zone. The total calculated annual energy consumption shall be shown in units of kWh/ft²/year or Btu/ft²/year of conditioned area.

402.1.3 Input Values: The following standardized input values shall be used in calculating annual space heating budgets:

PARAMETER	VALUE
Thermostat set point, heating	65° F
Thermostat set point, cooling	78° F
Thermostat night set back	65° F
Thermostat night set back period	0 hours
Internal gain	
R-3 units	3000 Btu/hr
R-1 units	1500 Btu/hr
Domestic Hot Water Heater Setpoint	120° F
Domestic Hot Water Consumption	20 gallons/person/day.
Minimum heat storage	Calculated using standard engineering practice for the actual building or as approved.
Site weather data	Typical meteorological year (TMY) or ersatz TMY data for the closest appropriate TMY site or other sites as approved.
Heating equipment efficiency	
Electric resistance heat	1.00
Heat Pumps	6.80 HSPF.
Other Fuels	0.78 AFUE.

The standard building shall be modeled with glazing area distributed equally among the four cardinal directions. Parameter values that may be varied by the building designer to model energy saving options include, but are not limited to, the following:

1. Overall thermal transmittance, U_o, of building envelope or individual building components;
2. Heat storage capacity of building;

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3. Glazing orientation; area; and ~~((shading))~~ solar heat gain coefficients;

4. Heating system efficiency.

402.1.4 Solar Shading and Access: Building designs using passive solar features with eight percent or more south facing equivalent glazing to qualify shall provide to the building official a sun chart or other approved documentation depicting actual site shading for use in calculating compliance under this section. The building shall contain at least forty-five Btu/°F for each square foot of south facing glass.

402.1.5 Infiltration: Infiltration levels used shall be set at 0.35 air changes per hour for thermal calculation purposes only.

402.1.6 Heat Pumps: The heating season performance factor (HSPF) for heat pumps shall be calculated using procedures consistent with section 5.2 of the U.S. Department of Energy Test Procedure for Central Air Conditioners, including heat pumps published in the December 27, 1979 Federal Register Vol. 44, No. 24.10 CFR 430. Climate data as specified above, the proposed buildings overall thermal performance value (Btu/°F) and the standardized input assumptions specified above shall be used to model the heat pumps HSPF.

402.2 Energy Analysis: Compliance with this chapter will require an analysis of the annual energy usage, hereinafter called an annual energy analysis.

EXCEPTION: Chapters 5, and 6 of this Code establish criteria for different energy-consuming and enclosure elements of the building which, will eliminate the requirement for an annual systems energy analysis while meeting the intent of this Code.

A building designed in accordance with this chapter will be deemed as complying with this Code if the calculated annual energy consumption is not greater than a similar building (defined as a "standard design") whose enclosure elements and energy-consuming systems are designed in accordance with Chapter 5.

For an alternate building design to be considered similar to a "standard design," it shall utilize the same energy source(s) for the same functions and have equal floor area and the same ratio of envelope area to floor area, environmental requirements, occupancy, climate data and usage operational schedule.

402.3 Design: The standard design, conforming to the criteria of Chapter 5 and the proposed alternative design shall be designed on a common basis as specified herein:

The comparison shall be expressed as kBtu or kWh input per square foot of conditioned floor area per year at the building site.

402.4 Analysis Procedure: The analysis of the annual energy usage of the standard and the proposed alternative building and system design shall meet the following criteria:

a. The building heating/cooling load calculation procedure used for annual energy consumption analysis shall be detailed to permit the evaluation of effect of factors specified in section 402.5.

b. The calculation procedure used to simulate the operation of the building and its service systems through a full-year operating period shall be detailed to permit the evaluation of the effect of system design, climatic factors,

operational characteristics, and mechanical equipment on annual energy usage. Manufacturer's data or comparable field test data shall be used when available in the simulation of systems and equipment. The calculation procedure shall be based upon eight thousand seven hundred sixty hours of operation of the building and its service systems.

402.5 Calculation Procedure: The calculation procedure shall cover the following items:

a. Design requirements—Environmental requirements as required in Chapter 3.

b. Climatic data—Coincident hourly data for temperatures, solar radiation, wind and humidity of typical days in the year representing seasonal variation.

c. Building data—Orientation, size, shape, mass, air, moisture and heat transfer characteristics.

d. Operational characteristics—Temperature, humidity, ventilation, illumination, control mode for occupied and unoccupied hours.

e. Mechanical equipment—Design capacity, part load profile.

f. Building loads—Internal heat generation, lighting, equipment, number of people during occupied and unoccupied periods.

EXCEPTION: Group R Occupancy shall comply with calculation procedures in Chapter 8, or an approved alternate.

402.6 Documentation: Proposed alternative designs, submitted as requests for exception to the standard design criteria, shall be accompanied by an energy analysis comparison report. The report shall provide technical detail on the two building and system designs and on the data used in and resulting from the comparative analysis to verify that both the analysis and the designs meet the criteria of Chapter 4 of this Code.

AMENDATORY SECTION (Amending WSR 95-01-126, filed 12/21/94, effective 6/30/95)

WAC 51-11-0502 Building envelope requirements.

502.1 General:

502.1.1: The stated U- or ~~((F-value))~~ F-factor of any component assembly, listed in Table 5-1 or 5-2, such as roof/ceiling, opaque wall or opaque floor may be increased and the ~~((U-value))~~ U-factor for other components decreased, provided that the total heat gain or loss for the entire building envelope does not exceed the total resulting from compliance to the ~~((U-values))~~ U-factors specified in this Section.

The ~~((U-values))~~ U-factors for typical construction assemblies are included in Chapter 10. These values shall be used for all calculations. Where proposed construction assemblies are not represented in Chapter 10, values shall be calculated in accordance with Chapters ~~((19-27))~~ 21-29 in Standard RS-1 listed in Chapter 7, using the framing factors listed in Chapter 10 where applicable.

For envelope assemblies containing metal framing, the ~~((U-value))~~ U-factor shall be determined by one of the following methods:

1. Results of laboratory or field measurements.
2. Standard RS-25, listed in Chapter 7, where the metal framing is bonded on one or both sides to a metal skin or covering.
3. The zone method as provided in Chapter ~~((22))~~ 24 of Standard RS-1, listed in Chapter 7.

4. Results of parallel path correction factors for effective framing/cavity R-values as provided from the following table for metal stud walls and roof/ceilings:

	CAVITY INSULATION	
	R-11	R-19
2 x 4 @ 16" o.c.	5.50	
2 x 4 @ 24" o.c.	6.60	
2 x 6 @ 16" o.c.		7.60
2 x 6 @ 24" o.c.		8.55

	Framing		Cavity Insulation		
	Nominal Depth, Inches	Actual Depth, Inches	Nominal R-Value	Effective R-Value	
				Framing 16" o.c.	Framing 24" o.c.
Wall	4	3-1/2	R-11	R-5.5	R-6.6
	4	3-1/2	R-13	R-6.0	R-7.2
	4	3-1/2	R-15	R-6.4	R-7.8
	6	5-1/2	R-19	R-7.1	R-8.6
	6	5-1/2	R-21	R-7.4	R-9.0
	8	7-1/4	R-25	R-7.8	R-9.6
Roof		Insulation is uncompressed	R-11	R-5.5	R-6.1
			R-19	R-7.0	R-9.1
			R-30	R-9.3	R-11.4

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502.1.2: For consideration of thermal mass effects, see section 402.4.

502.1.3: When return air ceiling plenums are employed, the roof/ceiling assembly shall:

- a. For thermal transmittance purposes, not include the ceiling proper nor the plenum space as part of the assembly; and
- b. For gross area purposes, be based upon the interior face of the upper plenum surface.

502.1.4 Insulation:

502.1.4.1 General: All insulating materials shall comply with sections 2602 and/or 707 of the Uniform Building Code. Substantial contact of the insulation with the surface being insulated is required. All insulation materials shall be installed according to the manufacturer's instructions to achieve proper densities and maintain uniform R-values and shall be installed in a manner which will permit inspection of the manufacturer's R-value identification mark. To the maximum extent possible, insulation shall extend over the full component area to the intended R-value.

Alternatively, the thickness of roof/ceiling and wall insulation that is either blown in or spray-applied shall be identified by inches of thickness, density and R-value markers installed at least one for every 300 square feet (28 m²) through the attic, ceiling and/or wall space. In attics, the

markers shall be affixed to the trusses or joists and marked with the minimum initial installed thickness and minimum settled thickness with numbers a minimum 1.0 inch (25 mm) in height. Each marker shall face the attic access. The thickness of installed attic insulation shall meet or exceed the minimum initial installed thickness shown by the marker. In cathedral ceilings and walls, the markers shall be affixed to the rafter and wall frame at alternating high and low intervals and marked with the minimum installed density and R-value with numbers a minimum 1.0 inch (25 mm) in height. Each marker shall face the conditioned room area.

502.1.4.2 Insulation Materials: All insulation materials including facings such as vapor barriers or breather papers installed within floor/ceiling assemblies, roof/ceiling assemblies, walls, crawl spaces, or attics shall have a flame spread rating of less than 25 and a smoke density not to exceed 450 when tested in accordance with UBC Standard 8-1.

EXCEPTIONS:

1. Foam plastic insulation shall comply with section 2602 of the Uniform Building Code.
2. When such materials are installed in concealed spaces of Types III, IV and V construction, the flame spread and smoke developed limitations do not apply to facing, provided that the facing is installed in substantial contact with the unexposed surface of the ceiling, floor or wall finish.
3. Cellulose insulation shall comply with section 707 of the Uniform Building Code.

502.1.4.3 Clearances: Where required, insulation shall be installed with clearances according to manufacturer's specifications. Insulation shall be installed so that required ventilation is unobstructed. For blown or poured loose fill insulation, clearances shall be maintained through installation of a permanent retainer.

502.1.4.4 Access Hatches and Doors: Access doors from conditioned spaces to unconditioned spaces (e.g., attics and crawl spaces) shall be weatherstripped and insulated to a level equivalent to the insulation on the surrounding surfaces. Access shall be provided to all equipment which prevents damaging or compressing the insulation. A wood framed or equivalent baffle or retainer must be provided when loose fill insulation is installed, the purpose of which is to prevent the loose fill insulation from spilling into the living space when the attic access is opened, and to provide a permanent means of maintaining the installed R-value of the loose fill insulation.

502.1.4.5 Roof/Ceiling Insulation: Open-blown or poured loose fill insulation may be used in attic spaces where the slope of the ceiling is not more than 3 feet in 12 and there is at least 30 inches of clear distance from the top of the bottom chord of the truss or ceiling joist to the underside of the sheathing at the roof ridge. When eave vents are installed, baffling of the vent openings shall be provided so as to deflect the incoming air above the surface of the insulation. Baffles shall be, rigid material, resistant to wind driven moisture. Requirements for baffles for ceiling insulation shall meet the Uniform Building Code section 1505.3 for minimum ventilation requirements. When feasible, the baffles shall be installed from the top of the outside of the exterior wall, extending inward, to a point 6 inches vertically above the height of noncompressed insulation, and 12 inches vertically above loose fill insulation.

502.1.4.6 Wall Insulation: Insulation installed in exterior walls shall comply with the provisions of this section. All wall insulation shall fill the entire cavity. Exterior wall cavities isolated during framing shall be fully insulated to the levels of the surrounding walls. All faced insulation shall be face stapled to avoid compression.

502.1.4.7 Floor Insulation: Floor insulation shall be installed in a permanent manner in substantial contact with the surface being insulated. Insulation supports shall be installed so spacing is no more than 24 inches on center. Foundation vents shall be placed so that the top of the vent is below the lower surface of the floor insulation.

EXCEPTION: Insulation may be omitted from floor areas over heated basements, heated garages or underfloor areas used as HVAC supply plenums. See Uniform Mechanical Code section 607 for underfloor supply plenum requirements. When foundation walls are insulated, the insulation shall be attached in a permanent manner. The insulation shall not block the airflow through foundation vents when installed. When foundation vents are not placed so that the top of the vent is below the lower surface of the floor insulation, a permanently attached baffle shall be installed at an angle of 30° from horizontal, to divert air flow below the lower surface of the floor insulation.

502.1.4.8 Slab-On-Grade: Slab-on-grade insulation, installed inside the foundation wall, shall extend downward from the top of the slab for a minimum distance of 24 inches

or downward and then horizontally beneath the slab for a minimum combined distance of 24 inches. Insulation installed outside the foundation shall extend downward to a minimum of 24 inches or to the frostline. Above grade insulation shall be protected.

EXCEPTION: For monolithic slabs, the insulation shall extend downward from the top of the slab to the bottom of the footing.

502.1.4.9 Radiant Slabs: The entire area of a radiant slab shall be thermally isolated from the soil, with a minimum of R-10 insulation. The insulation shall be an approved product for its intended use. If a soil gas control system is present below the radiant slab, which results in increased convective flow below the radiant slab, the radiant slab shall be thermally isolated from the sub-slab gravel layer.

502.1.4.10 Below Grade Walls: Below grade exterior wall insulation used on the exterior (cold) side of the wall shall extend from the top of the below grade wall to the top of the footing and shall be approved for below grade use. Above grade insulation shall be protected.

Insulation used on the interior (warm) side of the wall shall extend from the top of the below grade wall to the below grade floor level.

502.1.5 Glazing and Door (~~U-Values~~) U-factors: Glazing and door (~~U-values~~) U-factors shall be determined in accordance with sections 502.1.5.1 and 502.1.5.2. All products shall be labeled with the NFRC certified or default (~~U-value~~) U-factor. The labeled (~~U-value~~) U-factor shall be used in all calculations to determine compliance with this Code. Sealed insulating glass shall conform to, or be in test for, ASTM E-774-81 class A.

EXCEPTIONS:

1. For glazed wall systems, assemblies with all of the following features are deemed to satisfy the vertical glazing U-factor requirement in Table 6-1 through 6-6 options with vertical glazing U-0.40 and greater:

a. Double glazing with a minimum 1/2 inch gap width, having a low-emissivity coating with e=0.10 maximum, with 90% minimum argon gas fill, and a non-aluminum spacer (as defined in footnote 1 to Table 10-6B), and

b. Frame that is thermal break aluminum (as defined in footnote 9 to Table 10-6B), wood, aluminum clad wood, vinyl, aluminum clad vinyl, or reinforced vinyl.

The only labeling requirement for products using this exception shall be a description of the product and a label stating: "This product is deemed to satisfy the Table 6-1 through 6-6 vertical glazing U-factor requirement using the exception to Section 502.1.5 in the Washington State Energy Code."

2. For overhead glazing, assemblies with all of the following features are deemed to satisfy the overhead glazing U-factor requirement in all Table 6-1 through 6-6 options except the unlimited glazing area options (Option VIII in Table 6-2, Option IX in Table 6-4, and Option VIII for Climate Zone 1 and Option IX for Climate Zone 2 in Table 6-6):

a. Either, double glazing with a minimum 1/2 inch gap width, having a low-emissivity coating with e=0.20 maximum, with 90% minimum argon gas fill, or, triple glazed plastic domes, and

b. Frame that is thermal break aluminum (as defined in footnote 9 to Table 10-6B), wood, aluminum clad wood, vinyl, aluminum clad vinyl, or reinforced vinyl.

The only labeling requirement for products using this exception shall be a description of the product and a label stating: "This product is deemed to satisfy the Table 6-1 through 6-6 overhead glazing U-factor requirement using the exception to Section 502.1.5 in the Washington State Energy Code."

3. For solariums with a floor area which does not exceed 300 square feet, assemblies which comply with the features listed in exception 2 are deemed to satisfy the vertical glazing and overhead glazing U-factor requirement in Table 6-1 through 6-6 options with vertical glazing U-0.40 and greater.

The only labeling requirement for products using this exception shall be a description of the product and a label stating: "This product is deemed to satisfy the Table 6-1 through 6-6 vertical glazing and overhead glazing U-factor requirements using the exception to Section 502.1.5 in the Washington State Energy Code."

502.1.5.1 Standard Procedure for Determination of Glazing ((U-Values)) U-Factors: ((U-values)) U-factors for glazing shall be determined, certified and labeled in accordance with the National Fenestration Rating Council (NFRC) Product Certification Program (PCP), as authorized by an independent certification and inspection agency licensed by the NFRC. Compliance shall be based on the Residential Model Size ((AA)). Product samples used for ((U-value)) U-factor determinations shall be production line units or representative of units as purchased by the consumer or contractor. Products that are listed in the NFRC Certified Products Directory or certified to the NFRC standard shall not use default values.

EXCEPTIONS:

1. ((Un-tested)) Glazing products without NFRC ratings may be assigned default ((U-values)) U-factors from Table 10-6A for vertical glazing and from Table 10-6E for overhead glazing.

2. ((Overhead glazing and)) Units without NFRC ratings produced by a small business may be assigned default ((U-values)) U-factors from Table 10-6A for garden windows, from Table 10-6B for other vertical glazing, and from Table 10-6E for overhead glazing.

~~((3. Passive air inlets are not required to be part of the tested assembly.~~

4. Compliance for tested overhead glazing shall be based on NFRC Model Size BB-))

502.1.5.2 Standard Procedure for Determination of Door ((U-Values)) U-factors: Half-lite and full-lite doors, including fire doors, shall be assigned default ((U-values)) U-factors from Table 10-6D. All other doors, including fire doors, shall be assigned default ((U-values)) U-factors from Table 10-6C.

EXCEPTIONS:

1. ((U-values)) U-factors determined, certified and labeled in accordance with the National Fenestration Rating Council (NFRC) Product Certification Program (PCP), as authorized by an independent certification and inspection agency licensed by the NFRC.

2. The default values for the opaque portions of doors shall be those listed in Table 10-6C, provided that the ((U-value)) U-factor listed for a door with a thermal break shall only be allowed if both the door and the frame have a thermal break.

3. One unlabeled or untested exterior swinging door with the maximum area of 24 square feet may be installed for ornamental, security or architectural purposes. Products using this exception shall not be included in either the ((U-value)) U-factor or glazing area calculation requirements.

502.1.6 Moisture Control:

502.1.6.1 Vapor Retarders: Vapor retarders shall be installed on the warm side (in winter) of insulation as specified in the following cases.

EXCEPTION: Vapor retarder installed with not more than 1/3 of the nominal R-value between it and the conditioned space.

502.1.6.2 Floors: Floors separating conditioned space from unconditioned space shall have a vapor retarder installed. The vapor retarder shall have a one perm dry cup rating or less (i.e., four mil[0.004 inch thick] polyethylene or kraft faced material).

502.1.6.3 Roof/Ceilings: Roof/ceiling assemblies where the ventilation space above the insulation is less than an average of 12 inches shall be provided with a vapor retarder. Faced batt insulation where used as a vapor retarder shall be face stapled. Single rafter joist vaulted ceiling cavities shall be of sufficient depth to allow a minimum one inch vented air space above the insulation.

502.1.6.4: Vapor retarders shall not be required in roof/ceiling assemblies where the ventilation space above the insulation averages 12 inches or greater.

502.1.6.5: Vapor retarders shall not be required where all of the insulation is installed between the roof membrane and the structural roof deck.

502.1.6.6 Walls: Walls separating conditioned space from unconditioned space shall have a vapor retarder installed. Faced batt insulation shall be face stapled.

502.1.6.7 Ground Cover: A ground cover of six mil (0.006 inch thick) black polyethylene or approved equal shall be laid over the ground within crawl spaces. The ground cover shall be overlapped 12 inches minimum at the joints and shall extend to the foundation wall.

EXCEPTION: The ground cover may be omitted in crawl spaces if the crawl space has a concrete slab floor with a minimum thickness of 3-1/2 inches.

502.2 Thermal Criteria for Group R Occupancy:

502.2.1 UA Calculations: The proposed UA as calculated using Equations 2 and 3 shall not exceed the target UA as calculated using Equation 1. For the purpose of determining equivalent thermal performance, the glazing area for the target UA shall be calculated using ((figures)) values in Table 5-1(~~and all the glazing shall be located in the wall area~~). The opaque door area shall be the same in the target UA and the proposed UA.

EXCEPTION: Log and solid timber walls that have a minimum average thickness of 3.5" and with space heat type other than electric resistance, are exempt from wall target UA and proposed UA calculations.

502.2.2 Space Heat Type: The following two categories comprise all space heating types:

1. Electric Resistance: Space heating systems which include baseboard units, radiant units and forced air units as either the primary or secondary heating system.

EXCEPTION: Electric resistance systems for which the total electric heat capacity in each individual dwelling unit does not exceed the greater of: 1) One thousand watts (1000 w) per dwelling unit, or; 2) One watt per square foot (1 w/ft²) of the gross floor area.

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2. Other: All gas, wood, oil and propane space heating systems, unless electric resistance is used as a secondary heating system, and all heat pump space heating systems. (See EXCEPTIONS, Electric Resistance, section 502.2.2 above.)

502.3 Reserved.

502.4 Air Leakage:

502.4.1 General: The requirements of this section shall apply to all buildings and structures, or portions thereof, and only to those locations separating outdoor ambient conditions from interior spaces that are heated or mechanically cooled.

502.4.2 Doors and Windows, General: Exterior doors and windows shall be designed to limit air leakage into or from the building envelope. Site-constructed doors and windows shall be sealed in accordance with Section 502.4.3.

502.4.3 Seals and Weatherstripping:

a. Exterior joints around windows and door frames, openings between walls and foundation, between walls and roof and wall panels; openings at penetrations of utility services through walls, floors and roofs; and all other openings in the building envelope for all occupancies and all other openings in between units in R-1 occupancy shall be sealed, caulked, gasketed or weatherstripped to limit air leakage. Other exterior joints and seams shall be similarly treated, or taped, or covered with moisture vapor permeable housewrap.

b. All exterior doors or doors serving as access to an enclosed unheated area shall be weatherstripped to limit leakage around their perimeter when in a closed position.

c. Site built windows are exempt from testing but shall be made tight fitting. Fixed lights shall have glass retained by stops with sealant or caulking all around. Operating sash shall have weatherstripping working against overlapping trim and a closer/latch which will hold the sash closed. The window frame to framing crack shall be made tight with caulking, overlapping membrane or other approved technique.

d. Openings that are required to be fire resistive are exempt from this section.

502.4.4 Recessed Lighting Fixtures: When installed in the building envelope, recessed lighting fixtures shall meet one of the following requirements:

1. Type IC rated, manufactured with no penetrations between the inside of the recessed fixture and ceiling cavity and sealed or gasketed to prevent air leakage into the unconditioned space.

2. Type IC rated, installed inside a sealed box constructed from a minimum 1/2 inch thick gypsum wall board, or constructed from a preformed polymeric vapor barrier, or other air tight assembly manufactured for this purpose.

3. Type IC rated, certified under ASTM E283 to have no more than 2.0 cfm air movement from the conditioned space to the ceiling cavity. The lighting fixture shall be tested at 75 Pascals or 1.57 lbs/ft² pressure difference and have a label attached, showing compliance.

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 93-21-052, filed 10/18/93, effective 4/1/94)

WAC 51-11-0503 Building mechanical systems.

503.1 General: This section covers the determination of design requirements, system and component performance, control requirements, insulating systems and duct construction.

EXCEPTION: Special applications, including but not limited to hospitals, laboratories, thermally sensitive equipment, and computer rooms may be exempted from the requirements of this section when approved by the building official.

503.2 Calculations of Heating and Cooling Loads, and System Sizing Limits: The design parameters specified in Chapter 3 shall apply for all computations.

503.2.1 Calculation Procedures: Heating and cooling design loads for the purpose of sizing HVAC systems are required and shall be calculated in accordance with accepted engineering practice, including infiltration and ventilation.

503.2.2 Space Heating and Space Cooling System Sizing Limits: Building mechanical systems for all buildings which provide space heating and/or space cooling shall be sized no greater than ~~((one))~~ two hundred ~~((fifty))~~ percent (200%) of the heating and cooling design loads as calculated above.

EXCEPTIONS: The following limited exemptions from the sizing limit shall be allowed, however, in all cases heating and/or cooling design load calculations shall be submitted.

1. For equipment which provides both heating and cooling in one package unit, including heat pumps with electric heating and cooling and gas-pack units with gas heating and electric cooling, compliance need only be demonstrated for either the space heating or space cooling system size.

2. Natural gas- or oil-fired space heating equipment whose total rated space heating output in any one dwelling unit is fifty-six thousand Btu/h or less may exceed the ~~((one hundred fifty))~~ two hundred (200%) percent sizing limit provided that the installed equipment has an annual fuel utilization efficiency (AFUE) of not less than the sum of seventy-eight percent plus one percent for every five thousand Btu/h that the space heating equipment output exceeds the design heating load of the dwelling unit.

3. Stand-by equipment may be installed if controls and other devices are provided which allow redundant equipment to operate only when the primary equipment is not operating.

503.3 Simultaneous Heating and Cooling: ~~((Each temperature control zone shall include thermostatic controls installed and operated to sequence the use of heating and cooling energy to satisfy the thermal and/or humidity requirement of the zone. Controls shall prevent reheating (heating air that is cooler than system mixed air), recooling (cooling air that is warmer than the system mixed air), mixing or simultaneous supply of warm air (warmer than system return air mixed air) and cold air (cooler than system mixed air), or other simultaneous operation of heating and cooling systems to one zone. For the purposes of this section, system mixed air is defined as system return air mixed with the minimum ventilation air requirement by section 303))~~ Systems and equipment that provide simulta-

neous heating and cooling shall comply with the requirements in, as appropriate, Section 1422 or Section 1435.

~~(EXCEPTIONS:~~

- ~~1. Variable air volume systems designed to reduce the air supply to each zone during periods of occupancy to the larger of the following:

 - a. Thirty percent or less of the peak supply volume.
 - b. The minimum allowed to meet ventilation requirements of section 503.2.
 - c. 0.5 cfm/ft² of zone conditioned area before reheating, recooling or mixing takes place. Consideration shall be given to supply air temperature reset control.~~
- ~~2. The energy for reheating, or providing warm air in mixing systems, is provided entirely from recovered energy that would otherwise be wasted, or from renewable energy sources. In addition, the system shall comply with section 503.7 without exception.~~
- ~~3. Areas where specific humidity levels are required to satisfy process needs.~~
- ~~4. Where special pressurization relationships or cross-contamination requirements are such that variable air volume systems are impractical, supply air temperatures shall be reset by representative building load or outside air temperature:))~~

503.4 HVAC Equipment Performance Requirements:

503.4.1 Equipment Components:

503.4.1.1: The requirements of this section apply to equipment and mechanical component performance for heating, ventilating and air-conditioning systems. Equipment efficiency levels are specified. Data furnished by the equipment supplier or certified under a nationally recognized certification program or rating procedure shall be used to satisfy these requirements. Equipment efficiencies shall be based on the standard rating conditions in Tables 5-4, 5-5 or 5-6 as appropriate.

503.4.1.2: Where components from more than one manufacturer are assembled into systems regulated under this section, compliance for each component shall be as specified in sections 503.4.2 through 503.4.6 of this Code.

503.4.2: HVAC System Heating Equipment Heat Pump-heating Mode. Heat pumps whose energy input is entirely electric shall have a coefficient of performance (COP) heating, not less than the values in Table 5-7. Heat Pumps with supplementary backup heat other than electricity shall meet the requirements of Table 5-7.

503.4.2.1: These requirements apply to, but are not limited to, unitary (central) heat pumps (air source and water source) in the heating mode, water source (hydronic) heat pumps as used in multiple-unit hydronic HVAC systems, and heat pumps in the packaged terminal air-conditioner in the heating mode.

503.4.2.3 Supplementary Heater: The heat pump shall be installed with a control to prevent supplementary backup heater operation when the operating load can be met by the heat pump compression cycle alone.

503.4.2.4 Heat Pump Controls: Requirements for heat pump controls are listed in section 503.8.3.5 of this Code.

503.4.3 HVAC System Combustion Equipment: For Group R Occupancy, all gas, oil, and propane central heating systems shall have a minimum AFUE of 0.78*. All other

Group R Occupancy heating equipment fueled by gas, oil, or propane shall be equipped with an intermittent ignition device, or shall comply with the efficiencies as required in the 1987 National Appliances Energy Conservation Act (Public Law 100-12).

* HVAC Heating system efficiency trade-offs shall be made using Chapters 4 or 6 of this Code.

503.4.4 Packaged and Unitary HVAC System Equipment, Electrically Operated, Cooling Mode: HVAC system equipment as listed below, whose energy input in the cooling mode is entirely electric, shall have an energy efficiency ratio (EER) or a seasonal energy efficiency ratio (SEER) cooling not less than values in Table 5-8.

503.4.4.1: These requirements apply to, but are not limited to, unitary (central) and packaged terminal heat pumps (air source and water source); packaged terminal air conditioners.

503.4.5 (~~Reserved.~~

~~503.4.6 Reserved:))~~ **Other HVAC Equipment:** HVAC equipment, other than that addressed in Sections 503.4.2 through 503.4.4, shall have a minimum performance at the specified rating conditions not less than the values shown in Tables 14-1 through 14-3.

503.5 Reserved.

503.6 Balancing: The HVAC system design shall provide a means for balancing air and water systems. Balancing the system shall include, but not be limited to, dampers, temperature and pressure test connections and balancing valves.

503.7 Cooling with Outdoor Air (Economizer Cycle): ~~((Each fan system shall be designed to use up to and including one hundred percent of the fan system capacity for cooling with outdoor air automatically whenever its use will result in lower usage of new energy. Activation of economizer cycle shall be controlled by sensing outdoor air enthalpy or outdoor air dry bulb temperature alone or alternate means approved by the building official))~~ Systems and equipment that provide mechanical cooling shall comply with Section 1413 and, as appropriate, Section 1423 or Section 1433.

~~((EXCEPTIONS: Cooling with outdoor air is not required under any one or more of the following conditions:~~

- ~~1. The fan system capacity is less than three thousand five hundred cfm or total cooling capacity is less than ninety thousand Btu/h.~~
- ~~2. The quality of the outdoor air is so poor as to require extensive treatment of the air and approval by the building official.~~
- ~~3. The need for humidification or dehumidification requires the use of more energy than is conserved by the outdoor air cooling on an annual basis.~~
- ~~4. The use of outdoor air cooling may affect the operation of other systems so as to increase the overall energy consumption of the building.~~
- ~~5. When energy recovered from an internal/external zone heat recovery system exceeds the energy conserved by outdoor air cooling on an annual basis.~~
- ~~6. When all space cooling is accomplished by a circulating liquid which transfers space heat directly or indirectly to a heat rejection device such as a cooling tower without use of a refrigeration system.~~

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~~7. When the use of one hundred percent outside air will cause coil frosting, controls may be added to reduce the quantity of outside air. However, the intent of this exception is to use one hundred percent air in lieu of mechanical cooling when less energy usage will result and this exception applies only to direct expansion systems when the compressor is running.)~~

503.8 Controls:

503.8.1 Temperature Control: Each system shall be provided with at least one adjustable thermostat for the regulation of temperature. Each thermostat shall be capable of being set by adjustment or selection of sensors as follows:

503.8.1.1: When used to control heating only: Fifty-five degrees to seventy-five degrees F.

503.8.1.2: When used to control cooling only: Seventy degrees to eighty-five degrees F.

503.8.1.3: When used to control both heating and cooling, it shall be capable of being set from fifty-five degrees to eighty-five degrees F and shall be capable of operating the system heating and cooling in sequence. The thermostat and/or control system shall have an adjustable deadband of not less than ten degrees F.

503.8.2 Humidity Control: If a system is equipped with a means for adding moisture to maintain specific selected relative humidities in space or zones, a humidistat shall be provided. Humidistats shall be capable of being set to prevent new energy from being used to produce space-relative humidity above thirty percent.

EXCEPTION: Special uses requiring different relative humidities may be permitted when approved by the building official.

503.8.3 Zoning for Temperature Control:

503.8.3.1 One- and Two-Family Dwellings: At least one thermostat for regulation of space temperature shall be provided for each separate system. In addition, a readily accessible manual or automatic means shall be provided to partially restrict or shut off the heating and/or cooling input to each zone or floor.

503.8.3.2 Multifamily Dwellings: For multifamily dwellings, each individual dwelling unit shall have at least one thermostat for regulation of space temperature. A readily accessible manual or automatic means shall be provided to partially restrict or shut off the heating and/or cooling input to each room. Spaces other than living units shall meet the requirements of 503.8.3.3.

503.8.3.3 Reserved.

503.8.3.4 Control Setback and Shut-off:

~~((+)) Residential Occupancy Groups. One- and Two-Family and Multifamily dwellings—The thermostat required in section 503.8.3.1 or section 503.8.3.2, or an alternate means such as a switch or clock, shall provide a readily accessible, manual or automatic means for reducing the energy required for heating and cooling during the periods of non-use or reduced need, such as, but not limited to unoccupied periods and sleeping hours. Lowering thermostat set points to reduce energy consumption of heating systems shall not cause energy to be expended to reach the reduced setting.~~

~~((2. Reserved.))~~

503.8.3.5 Heat Pump Controls: Programmable thermostats are required for all heat pump systems. The cut-on temperature for the compression heating shall be higher than the cut-on temperature for the supplementary heat, and the cut-off temperature for the compression heating shall be higher than the cut-off temperature for the supplementary heat. Heat pump thermostats will be capable of providing at least two programmable setback periods per day. The automatic setback thermostat shall have the capability of limiting the use of supplemental heat during the warm-up period.

503.9 Air Handling Duct System Insulation: Ducts, plenums and enclosures installed in or on buildings shall be thermally insulated per Table 5-11.

EXCEPTIONS: Duct insulation (except where required to prevent condensation) is not required in any of the following cases:

1. When the heat gain or loss of the ducts, without insulation, will not increase the energy requirements of the building.
2. Within the HVAC equipment.
3. Exhaust air ducts.
4. Supply or return air ducts installed in unvented crawl spaces with insulated walls, basements, or cellars in one- and two-family dwellings.

503.10 Duct Construction: All duct work shall be constructed in accordance with Standards RS-15, RS-16, RS-17, RS-18, RS-19 or RS-20, as applicable, and the Uniform Mechanical Code.

503.10.1: High-pressure and medium-pressure ducts shall be leak tested in accordance with the applicable standards in Chapter 7 of this Code with the rate of air leakage not to exceed the maximum rate specified in that standard.

503.10.2: When low-pressure supply air ducts are located outside of the conditioned space, all HVAC ductwork seams and joints, both longitudinal and transverse, shall be taped and sealed with products approved by the building official only. Ductwork joints shall be mechanically fastened with a minimum of three fasteners per joint for a cylindrical duct. Use Table 5-11 for duct insulation requirements.

503.10.3: Requirements for Automatic or manual dampers are found in the Washington State Ventilation and Indoor Air Quality Code.

503.11 Piping Insulation: All piping installed to serve buildings (and within) shall be thermally insulated in accordance with Table 5-12. For service hot water systems see section 504.7. If water pipes are outside of conditioned space then the pipe insulation requirement shall be R-3 minimum for nonrecirculating hot and cold water pipes. For recirculating service hot and cold water pipes use Table 5-12 for pipe sizes and temperatures.

EXCEPTION: Piping insulation is not required within unitary HVAC equipment.

~~((503.11.1 Other Insulation Thickness: Insulation thickness in Table 5-12 is based on insulation having thermal resistance in the range of 4.0 to 4.6 per inch of thickness on a flat surface at a mean temperature of seventy five degrees F. Minimum insulation thickness shall be increased for~~

~~materials having R-values less than 4.0 per inch, or may be reduced for materials having R-values greater than 4.6 per inch.~~

~~a. For materials with thermal resistance greater than R = 4.6 per inch, the minimum insulation thickness may be reduced as follows:~~

~~$$\frac{4.6 \times (\text{Table 5-12 Thickness})}{\text{Actual Resistance}} = \text{New Minimum Thickness}$$~~

~~b. For materials with thermal resistance less than R = 4.0 per inch, the minimum insulation thickness shall be increased as follows:~~

~~$$\frac{4.0 \times (\text{Table 5-10 Thickness})}{\text{Actual Resistance}} = \text{New Minimum Thickness}$$~~

~~c. Additional insulation with vapor barriers shall be provided to prevent condensation where required by the building official.)~~

AMENDATORY SECTION (Amending WSR 92-01-140, filed 12/19/91, effective 7/1/92)

WAC 51-11-0504 Service water heating.

504.1 Scope: The purpose of this section is to provide criteria for design and equipment selection that will produce energy savings when applied to service water heating.

504.2 Water Heaters, Storage Tanks and Boilers:

504.2.1 Performance Efficiency: All Storage water heaters shall meet the requirements of the 1987 National Appliance Energy Conservation Act and be so labeled. All electric water heaters in unheated spaces or on concrete floors shall be placed on an incompressible, insulated surface with a minimum thermal resistance of R-10.

For combination space and service water heaters with a principal function of providing space heat, the Combined Annual Efficiency (CAE) may be calculated by using ASHRAE Standard 124-1991. Storage water heaters used in combination space heat and water heat applications shall have either an Energy Factor (EF) or a Combined Annual Efficiency (CAE) of not less than the following:

	Energy Factor (EF)	Combined Annual Efficiency (CAE)
< 50 gallon storage	0.58	0.71
50 to 70 gallon storage	0.57	0.71
> 70 gallon storage	0.55	0.70

504.2.2 Insulation: Heat loss from unfired hot-water storage tanks shall be limited to a maximum of 9.6 Btu/hr/ft² of external tank surface area. The design ambient temperature shall be no higher than sixty-five degrees F.

504.2.3 Combination Service Water Heating/Space Heating Boilers: Service water heating equipment shall not be dependent on year round operation of space heating boilers.

EXCEPTIONS: 1. Systems with service/space heating boilers having a standby loss Btu/h less than:

$$(13.3 \text{ pmd} + 400)/n$$

determined by the fixture count method where:

pmd = probably maximum demand in gallons/hour as determined in accordance with Chapter 37 of Standard RS-11.

n = fraction of year when outdoor daily mean temperature exceeds 64.9° F.

The standby loss is to be determined for a test period of twenty-four-hour duration while maintaining a boiler water temperature of ninety degrees F above an ambient of sixty degrees F and a five foot stack on appliance.

2. For systems where the use of a single heating unit will lead to energy savings, such unit shall be utilized.

504.3 Automatic Controls: Service water heating systems shall be equipped with automatic temperature controls capable of adjustment from the lowest to the highest acceptable temperature settings for the intended use.

Temperature setting range shall be set to one hundred twenty degrees F or forty-nine degrees C.

504.4 Shutdown: A separate switch shall be provided to permit turning off the energy supplied to electric service water heating systems. A separate valve shall be provided to permit turning off the energy supplied to the main burner(s) of all other types of service water heater systems.

504.5 Swimming Pools:

504.5.1: All pool heaters shall be equipped with readily accessible ON/OFF switch to allow shutting off the operation of the heater without adjusting the thermostat setting. Controls shall be provided to allow the water temperature to be regulated from the maximum design temperature down to sixty-five degrees F.

504.5.2 Pool Covers: Heated swimming pools shall be equipped with a pool cover, approved by the building official.

504.6 Pump Operation: Circulating hot water systems shall be controlled so that the circulation pump(s) can be conveniently turned off, automatically or manually, when the hot water system is not in operation.

504.7 Pipe Insulation: For recirculating and non-recirculating systems, piping shall be thermally insulated in accordance with section 503.11 and Table 5-12.

504.8 Conservation of Hot Water:

504.8.1 Showers and Lavatories: Showers and lavatories used for other than safety reasons shall be equipped with

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flow control devices or specially manufactured showerheads or aerators to limit the total water flow rate as set forth in chapter 51-26 WAC, as measured with both hot and cold faucets turned on to their maximum flow.

((504.8.2 Lavatories in Restrooms of Public Facilities:

504.8.2.1: Lavatories in restrooms of public facilities shall be equipped with a metering valve designed to close by

spring or water pressure when left unattended (self closing) and limit the flow rate as set forth in chapter 51-26 WAC.

EXCEPTION: Separate lavatories for physically handicapped persons shall not be equipped with self closing valves.

504.8.2.2: Lavatories in restrooms of public facilities shall be equipped with devices which limit the outlet temperature to a maximum of one hundred ten degrees F.))

AMENDATORY SECTION (Amending WSR 94-05-059, filed 2/10/94, effective 4/1/94)

WAC 51-11-0525 Equation 1—Group R Occupancy.

~~EQUATION 1—GROUP R OCCUPANCY~~

~~TARGET UA~~

~~$UA_T = U_W A_W + U_{BGW} A_{BGW} + U_G A_G + U_F A_F + U_{RC} A_{RC} + U_{CC} A_{CC} + U_D A_D + F_S P_S$~~

~~Where:~~

~~UA_T — the target combined thermal transmittance of the gross exterior wall, floor and roof/ceiling assembly area.~~

~~U_W — the thermal transmittance value of the opaque above grade wall area found in Table 5-1.~~

~~A_W — opaque above grade wall area.~~

~~U_{BGW} — the thermal transmittance value of the below grade opaque wall area found in Table 5-1.~~

~~A_{BGW} — opaque below grade wall area.~~

~~U_G — the thermal transmittance value of the glazing area found in Table 5-1.~~

~~A_G — 15% of the total floor area of the conditioned space.~~

~~U_F — the thermal transmittance value of the floor area found in Table 5-1.~~

~~A_F — floor area over unconditioned space.~~

~~U_{RC} — the thermal transmittance value of the roof/ceiling area found in Table 5-1.~~

~~A_{RC} — roof/ceiling area.~~

~~U_{CC} — the thermal transmittance value of the cathedral ceiling area found in Table 5-1.~~

~~A_{CC} — cathedral ceiling area.~~

~~U_D — the thermal transmittance value of the opaque door area found in Table 5-1.~~

~~A_D — opaque door area.~~

~~F_S — concrete slab component F value found in Table 5-1.~~

~~P_S — lineal ft. of concrete slab perimeter.~~

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**EQUATION 1 – GROUP R OCCUPANCY
TARGET UA**

$$U_{AT} = U_W A_W + U_{BGW} A_{BGW} + U_{VG} A_{VG} + U_{OG} A_{OG} + U_F A_F + U_{RC} A_{RC} + U_{CC} A_{CC} + U_D A_D + F_S P_S$$

Where:

- U_{AT} = the target combined thermal transmittance of the gross exterior wall, floor and roof/ceiling assembly area.
- U_W = the thermal transmittance value of the opaque above grade wall area found in Table 5-1.
- A_W = opaque above grade wall area.
- U_{BGW} = the thermal transmittance value of the below grade opaque wall area found in Table 5-1.
- A_{BGW} = opaque below grade wall area.
- U_{VG} = the thermal transmittance value of the vertical glazing area found in Table 5-1.
- A_{VG} = 15% of the total floor area of the conditioned space minus A_{OG} .
- U_{OG} = the thermal transmittance value of the overhead glazing area found in Table 5-1 (see Table 5-1 footnote 2).
- A_{OG} = overhead glazing area (if the proposed A_{OG} exceeds 15 percent, the target A_{OG} shall be 15 percent of the total floor area of the conditioned space).
- U_F = the thermal transmittance value of the floor area found in Table 5-1.
- A_F = floor area over unconditioned space.
- U_{RC} = the thermal transmittance value of the roof/ceiling area found in Table 5-1.
- A_{RC} = roof/ceiling area.
- U_{CC} = the thermal transmittance value of the cathedral ceiling area found in Table 5-1.
- A_{CC} = cathedral ceiling area.
- U_D = the thermal transmittance value of the opaque door area found in Table 5-1.
- A_D = opaque door area.
- F_S = concrete slab component F-factor found in Table 5-1.
- P_S = lineal ft. of concrete slab perimeter.

AMENDATORY SECTION (Amending WSR 94-05-059, filed 2/10/94, effective 4/1/94)

WAC 51-11-0527 Equation 3—Group R Occupancy.

~~EQUATION 3—GROUP R OCCUPANCY
PROPOSED UA~~

~~$UA = U_W A_W + U_{BGW} A_{BGW} + U_G A_G + U_F A_F + U_{RC} A_{RC} + U_{CC} A_{CC} + U_D A_D + F_S P_S$~~

~~Where:~~

~~UA = the combined thermal transmittance of the gross exterior wall, floor and roof/ceiling assembly area.~~

~~U_W = the thermal transmittance of the opaque wall area.~~

~~A_W = opaque wall area.~~

~~U_{BGW} = the thermal transmittance value of the below grade opaque wall area.~~

~~A_{BGW} = opaque below grade wall area.~~

~~U_G = the thermal transmittance of the glazing (window or skylight) area.~~

~~A_G = glazing area, including windows in exterior doors.~~

~~U_F = the thermal transmittance of the floor area.~~

~~A_F = floor area over unconditioned space.~~

~~U_{RC} = the thermal transmittance of the roof/ceiling area.~~

~~A_{RC} = roof/ceiling area.~~

~~U_{CC} = the thermal transmittance of the cathedral ceiling area.~~

~~A_{CC} = cathedral ceiling area.~~

~~U_D = the thermal transmittance value of the opaque door area.~~

~~A_D = opaque door area.~~

~~F_S = concrete slab component F-value.~~

~~P_S = lineal ft. of concrete slab perimeter.~~

~~NOTE: Where more than one type of wall, window, roof/ceiling, door and skylight is used, the U and A terms for those items shall be expanded into sub-elements as:~~

~~$U_{W1} A_{W1} + U_{W2} A_{W2} + U_{W3} A_{W3} + \dots \text{etc.}$~~

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**EQUATION 3 -- GROUP R OCCUPANCY
PROPOSED UA**

$$UA = U_W A_W + U_{BGW} A_{BGW} + U_{VG} A_{VG} + U_{OG} A_{OG} + U_F A_F + U_{RC} A_{RC} + U_{CC} A_{CC} + U_D A_D + F_S P_S$$

Where:

- UA = the combined thermal transmittance of the gross exterior wall, floor and roof/ceiling assembly area.
- U_W = the thermal transmittance of the opaque wall area.
- A_W = opaque wall area.
- U_{BGW} = the thermal transmittance value of the below grade opaque wall area.
- A_{BGW} = opaque below grade wall area.
- U_{VG} = the thermal transmittance value of the vertical glazing area.
- A_{VG} = vertical glazing area, including windows in exterior doors.
- U_{OG} = the thermal transmittance value of the overhead glazing area.
- A_{OG} = overhead glazing area.
- U_F = the thermal transmittance of the floor area.
- A_F = floor area over unconditioned space.
- U_{RC} = the thermal transmittance of the roof/ceiling area.
- A_{RC} = roof/ceiling area.
- U_{CC} = the thermal transmittance of the cathedral ceiling area.
- A_{CC} = cathedral ceiling area.
- U_D = the thermal transmittance value of the opaque door area.
- A_D = opaque door area.
- F_S = concrete slab component F-factor.
- P_S = lineal ft. of concrete slab perimeter.

NOTE: Where more than one type of wall, window, roof/ceiling, door and skylight is used, the U and A terms for those items shall be expanded into sub-elements as:

$$U_{W1} A_{W1} + U_{W2} A_{W2} + U_{W3} A_{W3} + \dots \text{etc.}$$

AMENDATORY SECTION (Amending WSR 95-01-126, filed 12/21/94, effective 6/30/95)

WAC 51-11-0530 Table 5-1.

**TABLE 5-1
TARGET COMPONENT VALUES FOR GROUP R OCCUPANCY**

Component	Electric Resistance		Other Fuels	
	Climate Zone		Climate Zone	
	1	2	1	2
Glazing % Floor Area	15%	15%	15%	15%
Glazing U Factor	U = 0.400	U = 0.400	U = 0.650	U = 0.600
Doors	U = 0.200 (R-5)	U = 0.200 (R-5)	U = 0.400 (R-2.5)	U = 0.400 (R-2.5)
Ceilings				
Attic	U = 0.031 (R-38)	U = 0.031 (R-38)	U = 0.036 (R-30)	U = 0.031 (R-38)
Single Rafter/ Joist Vaulted	U = 0.034 (R-30)	U = 0.034 (R-30)	U = 0.034 (R-30)	U = 0.034 (R-30)
Walls	U = 0.058 (R-19A)	U = 0.044 (R-19+5A)	U = 0.062 ¹ (R-19)	U = 0.062 ¹ (R-19+5)
Floors	U = 0.029 (R-30)	U = 0.029 (R-30)	U = 0.041 (R-19)	U = 0.029 (R-30)
Slab on Grade	F = 0.54 (R-10)	F = 0.54 (R-10)	F = 0.54 (R-10)	F = 0.54 (R-10)
Below Grade Interior				
Wall R-Value	R-19	R-19	R-19	R-19
2' Depth: Walls	U = 0.043	U = 0.043	U = 0.043	U = 0.043
Slab	F = 0.69	F = 0.69	F = 0.69	F = 0.69
3.5' Depth: Walls	U = 0.041	U = 0.041	U = 0.041	U = 0.041
Slab	F = 0.64	F = 0.64	F = 0.64	F = 0.64
7' Depth: Walls	U = 0.037	U = 0.037	U = 0.037	U = 0.037
Slab	F = 0.57	F = 0.57	F = 0.57	F = 0.57
Below Grade Exterior				
Wall R-Value	R-10	R-12	R-10	R-12
2' Depth: Walls	U = 0.070	U = 0.061	U = 0.070	U = 0.061
Slab	F = 0.60	F = 0.60	F = 0.60	F = 0.60
3.5' Depth: Walls	U = 0.064	U = 0.057	U = 0.064	U = 0.057
Slab	F = 0.57	F = 0.57	F = 0.57	F = 0.57
7' Depth: Walls	U = 0.056	U = 0.050	U = 0.056	U = 0.050
Slab	F = 0.42	F = 0.42	F = 0.42	F = 0.42

1. Log and Solid Timber walls that have a minimum average thickness of 3.5" are exempt from wall target UA and proposed UA calculations.

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**TABLE 5-1
TARGET COMPONENT VALUES FOR GROUP R OCCUPANCY**

Component	Electric Resistance		Other Fuels	
	Climate Zone		Climate Zone	
	1	2	1	2
Glazing % Floor Area	15%	15%	15%	15%
Vertical Glazing U-Factor	U = 0.400	U = 0.400	U = 0.650	U = 0.600
Overhead Glazing U-Factor	U = 0.58	U = 0.58	U = 0.68	U = 0.64
Doors	U = 0.200 (R-5)	U = 0.200 (R-5)	U = 0.400 (R-2.5)	U = 0.400 (R-2.5)
Ceilings				
Attic	U = 0.031 (R-38)	U = 0.031 (R-38)	U = 0.036 (R-30)	U = 0.031 (R-38)
Single Rafter/ Joist Vaulted	U = 0.034 (R-30)	U = 0.034 (R-30)	U = 0.034 (R-30)	U = 0.034 (R-30)
Walls	U = 0.058 (R-19A)	U = 0.044 (R-19+5A)	U = 0.062 ¹ (R-19)	U = 0.062 ¹ (R-19+5)
Floors	U = 0.029 (R-30)	U = 0.029 (R-30)	U = 0.041 (R-19)	U = 0.029 (R-30)
Slab on Grade Slab R-Value	F = 0.54 (R-10)	F = 0.54 (R-10)	F = 0.54 (R-10)	F = 0.54 (R-10)
Below Grade Interior				
Wall R-Value	R-19	R-19	R-19	R-19
2' Depth: Walls	U = 0.043	U = 0.043	U = 0.043	U = 0.043
Slab	F = 0.69	F = 0.69	F = 0.69	F = 0.69
3.5' Depth: Walls	U = 0.041	U = 0.041	U = 0.041	U = 0.041
Slab	F = 0.64	F = 0.64	F = 0.64	F = 0.64
7' Depth: Walls	U = 0.037	U = 0.037	U = 0.037	U = 0.037
Slab	F = 0.57	F = 0.57	F = 0.57	F = 0.57
Below Grade Exterior				
Wall R-Value	R-10	R-12	R-10	R-12
2' Depth: Walls	U = 0.070	U = 0.061	U = 0.070	U = 0.061
Slab	F = 0.60	F = 0.60	F = 0.60	F = 0.60
3.5' Depth: Walls	U = 0.064	U = 0.057	U = 0.064	U = 0.057
Slab	F = 0.57	F = 0.57	F = 0.57	F = 0.57
7' Depth: Walls	U = 0.056	U = 0.050	U = 0.056	U = 0.050
Slab	F = 0.42	F = 0.42	F = 0.42	F = 0.42

1. Log and Solid Timber walls that have a minimum average thickness of 3.5" are exempt from wall target UA and proposed UA calculations.

AMENDATORY SECTION (Amending WSR 92-01-140, filed 12/19/91, effective 7/1/92)

WAC 51-11-0541 Table 5-12.

TABLE 5-12 MINIMUM PIPE INSULATION REQUIREMENTS

PIPING SYSTEM	FLUID TEMP RANGE (°F)	INSULATION THICKNESS FOR GIVEN PIPE DIAMETERS ¹			
		LESS THAN 12 FOOT PIPE RUN UP TO 2"	1" AND LESS	GREATER THAN 1" TO 2"	GREATER THAN 2" TO 4"
HEATING & HOT WATER SYSTEMS					
Stream & Hot Water Pressure/temperature					
High	306°F @ 450 psf	1.5"	2.5"	2.5"	3.0"
Medium	251°F @ 305 psf	1.5"	2.0"	2.5"	3.0"
Low	201°F @ 250 psf	1.0"	1.5"	1.5"	2.0"
All Other	100°F @ 200 psf	0.5"	1.0"	1.0"	1.5"
Steam Condensate (for feed-water)	Any	1.0"	1.0"	1.5"	2.0"
COOLING SYSTEMS					
Chilled Water	40°F @ 55 psf	0.5"	0.5"	0.75"	1.0"
Refrigerant/brine	Below 40°F	1.0"	1.0"	1.5"	1.5"

¹For piping exposed to ambient air, increase thickness by 0.5".

²Pipe runouts not exceeding 12 feet in length to individual units, with a pipe diameter of less than 2 inches.

³Column headings for pipe diameters amended 5/30/90.

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**TABLE 5-12
MINIMUM PIPE INSULATION REQUIREMENTS**

Fluid Design Operating Temp. Range, °F	Insulation Conductivity		Nominal Pipe Diameter (in.)					
	Conductivity Range Btu • in./(h • ft ² • °F)	Mean Rating Temp. °F	Runouts ² up to 2	1 and less	> 1 to 2	> 2 to 4	> 4 to 6	> 6
Heating systems (Steam, Steam Condensate and Hot water)			Nominal Insulation Thickness					
Above 350	0.32-0.34	250	1.5	2.5	2.5	3.0	3.5	3.5
251-350	0.29-0.31	200	1.5	2.0	2.5	2.5	3.5	3.5
201-250	0.27-0.30	150	1.0	1.5	1.5	2.0	2.0	3.5
141-200	0.25-0.29	125	0.5	1.5	1.5	1.5	1.5	1.5
105-140	0.24-0.28	100	0.5	1.0	1.0	1.0	1.5	1.5
Domestic and Service Hot Water Systems								
105 and Greater	0.24-0.28	100	0.5	1.0	1.0	1.5	1.5	1.5
Cooling Systems (Chilled Water, Brine and Refrigerant)								
40-55	0.23-0.27	75	0.5	0.5	0.75	1.0	1.0	1.0
Below 40	0.23-0.27	75	1.0	1.0	1.5	1.5	1.5	1.5

- Alternative Insulation Types. Insulation thicknesses in Table 5-12 are based on insulation with thermal conductivities within the range listed in Table 5-12 for each fluid operating temperature range, rated in accordance with ASTM C 335-84 at the mean temperature listed in the table. For insulation that has a conductivity outside the range shown in Table 5-12 for the applicable fluid operating temperature range at the mean rating temperature shown (when rounded to the nearest 0.01 Btu • in./(h • ft² • °F)), the minimum thickness shall be determined in accordance with the following equation:

$$T = PR[(1 + t/PR)K/k - 1]$$

Where

- T = Minimum insulation thickness for material with conductivity K, inches.
- PR = Pipe actual outside radius, inches
- t = Insulation thickness from Table 5-12, inches
- K = Conductivity of alternate material at the mean rating temperature indicated in Table 5-12 for the applicable fluid temperature range, Btu • in./(h • ft² • °F)
- k = The lower value of the conductivity range listed in Table 5-12 for the applicable fluid temperature range, Btu • in./(h • ft² • °F)

- Runouts to individual terminal units not exceeding 12 ft. in length.

Reviser's note: RCW 34.05.395 requires the use of underlining and deletion marks to indicate amendments to existing rules. The rule published above varies from its predecessor in certain respects not indicated by the use of these markings.

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.

PERMANENT

AMENDATORY SECTION (Amending WSR 94-05-059, filed 2/10/94, effective 4/1/94)

WAC 51-11-0602 Building envelope requirements for Group R Occupancy.

602.1 Roof/Ceiling: Ceilings below vented attics and single-rafter, joist-vaulted ceilings shall be insulated to not less than the nominal R-value specified for ceilings in Tables 6-1 to 6-6 as applicable.

602.2 Exterior Walls Both Above and Below Grade: Above grade exterior walls shall be insulated to not less than the nominal R-value specified in Tables 6-1 to 6-6 as applicable. The following walls should be considered to meet R-19 without additional documentation:

1. 2 x 6 framed and insulated with R-19 fiberglass batts.
2. 2 x 4 framed and insulated with R-13 fiberglass batts plus R-3.2 foam sheathing.
3. 2 x 4 framed and insulated with R-11 fiberglass batts plus R-5.0 foam sheathing.

602.3 Exterior Walls (Below Grade): Below grade exterior walls surrounding conditioned space shall be insulated to not less than the nominal R-value specified for below grade walls in Tables 6-1 to 6-6 as applicable.

602.4 Slab-on-grade Floors: Slab-on-grade floors shall be insulated along their perimeter to not less than the nominal R-values specified for slab-on-grade floors in Tables 6-1 to 6-6 as applicable. Slab insulation shall be installed in compliance with section 502.1.4.8. See Chapter 5, section 502.1.4.9, for additional requirements for radiant slab heating.

602.5 Floors Over Unconditioned Space: Floors over unconditioned spaces, such as vented crawl spaces, unconditioned basements, and parking garages shall be insulated to not less than the nominal R-value shown for floors over unconditioned spaces, in Tables 6-1 to 6-6.

602.6 Exterior Doors: Doors shall comply with Sections 602.6.1 and 602.6.2.

EXCEPTIONS:

1. Doors whose area and ((U-value)) U-factor are included in the calculations for compliance with the requirements for glazing in section 602.7 shall be exempt from the door ((U-value)) U-factor requirements prescribed in Tables 6-1 to 6-6.
2. One unlabeled or untested exterior swinging door with the maximum area of 24 square feet may be installed for ornamental, security or architectural purposes. Products using this exception shall not be included in either the ((U-value)) U-factor or glazing area calculation requirements.

602.6.1 Exterior Door Area: For half-lite and full-lite doors, the glazing area shall be included in calculating the allowed total glazing area in Section 602.7.1. Single glazing used for ornamental, security or architectural purposes shall be calculated using the exception to Section 602.7.2.

602.6.2 Exterior Door ((U-Value)) U-Factor: Doors, including fire doors, shall have a maximum area weighted average ((U-value)) U-factor not exceeding that prescribed in Tables 6-1 to 6-6.

602.7 Glazing:

602.7.1 Glazing Area: The total glazing area as defined in Chapter 2 shall not exceed the percentage of gross conditioned floor area specified in Tables 6-1 to 6-6. This area shall also include any glazing in doors.

602.7.2 Glazing ((U-Value)) U-Factor: The total glazing area as defined in Chapter 2 shall have an area weighted average ((U-value)) U-factor not to exceed that specified in Tables 6-1 to 6-6. ((U-values)) U-factors for glazing shall be determined in accordance with section 502.1.5((-+)). These areas and ((U-values)) U-factors shall also include any doors using the exception of section 602.6.

If the ((U-values)) U-factors for all vertical and overhead glazing products are below the ((U-value)) appropriate U-factor specified, then no calculations are required. If compliance is to be achieved through an area weighted calculation, then the areas and ((U-values)) U-factors shall be included in the plans submitted with a building permit application.

EXCEPTION: Single glazing for ornamental, security, or architectural purposes and double glazed garden windows with a wood or vinyl frame shall be exempt from the U-factor calculations but shall have its area doubled and shall be included in the percentage of the total glazing area as allowed for in Tables 6-1 to 6-6. The maximum area (before doubling) allowed for the total of all single glazing and garden windows is one percent of the floor area.

602.8 Air Leakage For Group R Occupancy: The minimum air leakage control measures shall be as specified in section 502.4 as applicable.

AMENDATORY SECTION (Amending WSR 95-01-126, filed 12/21/94, effective 6/30/95)

WAC 51-11-0625 Table 6-1.

TABLE 6-1
 PRESCRIPTIVE REQUIREMENTS¹ FOR GROUP R OCCUPANCY
 CLIMATE ZONE 1 • HEATING BY ELECTRIC RESISTANCE

Option	Glazing % Floor Area	Glazing U-Value	Doors ⁹ U-Value	Ceiling ²	Vaulted Ceiling ³	Wall Above Grade	Wall int ⁴ Below Grade	Wall ext ⁴ Below Grade	Floor ⁵	Slab ⁴ on Grade
I.	10%	0.46	0.40	R-38	R-30	R-21	R-21	R-10	R-30	R-10
II.	12%	0.43	0.20	R-38	R-30	R-19	R-19	R-10	R-30	R-10
III.	12%	0.40	0.40	R-38	R-30	R-21	R-21	R-10	R-30	R-10
IV.*	15%	0.40	0.20	R-38	R-30	R-19	R-19	R-10	R-30	R-10
V.	18%	0.39	0.20	R-38	R-30	R-21	R-21	R-10	R-30	R-10
VI.	21%	0.36	0.20	R-38	R-30	R-21	R-21	R-10	R-30	R-10
VII. ⁷	25%	0.32 ⁷	0.20	R-38	R-30	R-19+R-5 ⁸	R-21	R-10	R-30	R-10
VIII. ⁷	30%	0.29 ⁷	0.20	R-38	R-30	R-19+R-5 ⁸	R-21	R-10	R-30	R-10

* Reference Case

1- Minimum requirements for each option listed. For example, if a proposed design has a glazing ratio to the conditioned floor area of 19%, it shall comply with all of the requirements of the 21% glazing option (or higher). Proposed designs which cannot meet the specific requirements of a listed option above may calculate compliance by Chapters 4 or 5 of this Code.

2- Requirement applies to all ceilings except single rafter or joist vaulted ceilings. 'Adv' denotes Advanced Framed Ceiling.

3- Requirement applicable only to single rafter or joist vaulted ceilings.

4- Below grade walls shall be insulated either on the exterior to a minimum level of R-10, or on the interior to the same level as walls above grade. Exterior insulation installed on below grade walls shall be a water resistant material, manufactured for its intended use, and installed according to the manufacturer's specifications. See Section 602.2.

5- Floors over crawl spaces or exposed to ambient air conditions.

6- Required slab perimeter insulation shall be a water resistant material, manufactured for its intended use, and installed according to manufacturer's specifications. See Section 602.4.

7- The following options shall be applicable to buildings less than three stories: 0.35 maximum for glazing areas of 25% or less; 0.32 maximum for glazing areas of 30% or less.

8- This wall insulation requirement denotes R-19 wall cavity insulation plus R-5 foam sheathing.

9- Doors, including all fire doors, shall be assigned default U-values from Table 10-6C or 10-6D.

PERMANENT

**TABLE 6-1
PRESCRIPTIVE REQUIREMENTS¹ FOR GROUP R OCCUPANCY
CLIMATE ZONE 1 • HEATING BY ELECTRIC RESISTANCE**

Option	Glazing Area ¹⁰ : % of Floor	Glazing U-Factor		Door U-Factor	Ceiling	Vaulted Ceiling	Wall Above Grade	Wall [•] int Below Grade	Wall [•] ext Below Grade	Floor	Slab on Grade
		Vertical	Overhead ¹¹								
I.	10%	0.46	0.58	0.40	R-38	R-30	R-21	R-21	R-10	R-30	R-10
II.	12%	0.43	0.58	0.20	R-38	R-30	R-19	R-19	R-10	R-30	R-10
III.	12%	0.40	0.58	0.40	R-38	R-30	R-21	R-21	R-10	R-30	R-10
IV.*	15%	0.40	0.58	0.20	R-38	R-30	R-19	R-19	R-10	R-30	R-10
V.	18%	0.39	0.58	0.20	R-38	R-30	R-21	R-21	R-10	R-30	R-10
VI.	21%	0.36	0.58	0.20	R-38	R-30	R-21	R-21	R-10	R-30	R-10
VII.	25%	0.32	0.58	0.20	R-38	R-30	R-19 ^s +R-5 ^s	R-21	R-10	R-30	R-10
VIII.	30%	0.29	0.58	0.20	R-38	R-30	R-19 ^s +R-5 ^s	R-21	R-10	R-30	R-10

* Reference Case

- Minimum requirements for each option listed. For example, if a proposed design has a glazing ratio to the conditioned floor area of 19%, it shall comply with all of the requirements of the 21% glazing option (or higher). Proposed designs which cannot meet the specific requirements of a listed option above may calculate compliance by Chapters 4 or 5 of this Code.
- Requirement applies to all ceilings except single rafter or joist vaulted ceilings. 'Adv' denotes Advanced Framed Ceiling.
- Requirement applicable only to single rafter or joist vaulted ceilings.
- Below grade walls shall be insulated either on the exterior to a minimum level of R-10, or on the interior to the same level as walls above grade. Exterior insulation installed on below grade walls shall be a water resistant material, manufactured for its intended use, and installed according to the manufacturer's specifications. See Section 602.2.
- Floors over crawl spaces or exposed to ambient air conditions.
- Required slab perimeter insulation shall be a water resistant material, manufactured for its intended use, and installed according to manufacturer's specifications. See Section 602.4.
- The following options shall be applicable to buildings less than three stories: 0.35 maximum for glazing areas of 25% or less; 0.32 maximum for glazing areas of 30% or less.
- This wall insulation requirement denotes R-19 wall cavity insulation plus R-5 foam sheathing.
- Doors, including all fire doors, shall be assigned default U-factors from Table 10-6C or 10-6D.
- Where a maximum glazing area is listed, the total glazing area (combined vertical plus overhead) as a percent of gross conditioned floor area shall be less than or equal to that value. Overhead glazing with U-factor of U=0.040 or less is not included in glazing area limitations.
- Overhead glazing shall have U-factors determined in accordance with NFRC 100 or as specified in Section 502.1.5.

PERMANENT

AMENDATORY SECTION (Amending WSR 95-01-126, filed 12/21/94, effective 6/30/95)

WAC 51-11-0626 Table 6-2.

**TABLE 6-2
PRESCRIPTIVE REQUIREMENTS¹ FOR GROUP R OCCUPANCY
CLIMATE ZONE 1 • HEATING BY OTHER FUELS**

Option	HVAC ⁹ Equip. Effic.	Glazing % Floor Area	Glazing U-Value	Doors ¹⁰ U-Value	Ceiling ²	Vaulted Ceiling ³	Wall Above Grade	Wall int ⁴ Below Grade	Wall ext ⁴ Below Grade	Floor ⁵	Slab ⁶ on Grade
I.	Med.	10%	0.70	0.40	R-30	R-30	R-15	R-15	R-10	R-19	R-10
II.	Med.	12%	0.65	0.40	R-30	R-30	R-15	R-15	R-10	R-19	R-10
III.	High	21%	0.75	0.40	R-30	R-30	R-19	R-19	R-10	R-19	R-10
IV.*	Med.	21%	0.65	0.40	R-30	R-30	R-19	R-19	R-10	R-19	R-10
V.	Low	21%	0.60	0.40	R-30	R-30	R-19	R-19	R-10	R-19	R-10
VI. ⁷	Med.	25%	0.45 ⁷	0.40	R-38	R-30	R-19	R-19	R-10	R-25	R-10
VII. ⁷	Med.	30%	0.40 ⁷	0.40	R-30	R-30	R-19	R-19	R-10	R-25	R-10

*—Reference Case

- 1—Minimum requirements for each option listed. For example, if a proposed design has a glazing ratio to the conditioned floor area of 19%, it shall comply with all of the requirements of the 21% glazing option (or higher). Proposed designs which cannot meet the specific requirements of a listed option above may calculate compliance by Chapters 4 or 5 of this Code.
- 2—Requirement applies to all ceilings except single-rafter or joist vaulted ceilings. 'Adv' denotes Advanced Framed Ceiling.
- 3—Requirement applicable only to single-rafter or joist vaulted ceilings.
- 4—Below-grade walls shall be insulated either on the exterior to a minimum level of R-10, or on the interior to the same level as walls above grade. Exterior insulation installed on below-grade walls shall be a water-resistant material, manufactured for its intended use, and installed according to the manufacturer's specifications. See Section 602.2.
- 5—Floors over crawl spaces or exposed to ambient air conditions.
- 6—Required slab perimeter insulation shall be a water-resistant material, manufactured for its intended use, and installed according to manufacturer's specifications. See Section 602.4.
- 7—The following options shall be applicable to buildings less than three stories: 0.50 maximum for glazing areas of 25% or less; 0.45 maximum for glazing areas of 30% or less.
- 8—This wall insulation requirement denotes R-19 wall cavity insulation plus R-5 foam sheathing.
- 9—Minimum HVAC Equipment efficiency requirement. 'Low' denotes an AFUE of 0.74. 'Med.' denotes an AFUE of 0.78. 'High' denotes an AFUE of 0.88. Minimum HVAC Equipment efficiency requirement for heat pumps. 'Low' denotes an HSPF of 6.35. 'Med' denotes an HSPF of 6.8. 'High' an HSPF of 7.7. Water and ground source heat pumps shall be considered as medium efficiency and have a minimum COP as required in Table 5-7.
- 10—Doors, including all fire doors, shall be assigned default U-values from Table 10-6C or 10-6D.

PERMANENT

**TABLE 6-2
PRESCRIPTIVE REQUIREMENTS¹ FOR GROUP R OCCUPANCY
CLIMATE ZONE 1 • HEATING BY OTHER FUELS**

Option	HVAC ⁹ Equip. Effic.	Glazing Area ¹¹ : % of Floor	Glazing U-Factor		Door ¹⁰ U-Factor	Ceiling ²	Vaulted Ceiling ³	Wall Above Grade	Wall• int ⁴ Below Grade	Wall• ext ⁴ Below Grade	Floor ⁵	Slab ⁶ on Grade
			Vertical	Overhead ¹²								
I.	Med.	10%	0.70	0.68	0.40	R-30	R-30	R-15	R-15	R-10	R-19	R-10
II.	Med.	12%	0.65	0.68	0.40	R-30	R-30	R-15	R-15	R-10	R-19	R-10
III.	High	21%	0.75	0.68	0.40	R-30	R-30	R-19	R-19	R-10	R-19	R-10
IV.*	Med.	21%	0.65	0.68	0.40	R-30	R-30	R-19	R-19	R-10	R-19	R-10
V.	Low	21%	0.60	0.68	0.40	R-30	R-30	R-19	R-19	R-10	R-19	R-10
VI. ⁷	Med.	25%	0.45 ⁷	0.68	0.40	R-38	R-30	R-19	R-19	R-10	R-25	R-10
VII. ⁷	Med.	30%	0.40 ⁷	0.68	0.40	R-30	R-30	R-19	R-19	R-10	R-25	R-10
VIII.	Med.	unlimited	0.25	0.40	0.40	R-30	R-30	R-19	R-19	R-10	R-25	R-10

* Reference Case

- 1 Minimum requirements for each option listed. For example, if a proposed design has a glazing ratio to the conditioned floor area of 19%, it shall comply with all of the requirements of the 21% glazing option (or higher). Proposed designs which cannot meet the specific requirements of a listed option above may calculate compliance by Chapters 4 or 5 of this Code.
- 2 Requirement applies to all ceilings except single rafter or joist vaulted ceilings. 'Adv' denotes Advanced Framed Ceiling.
- 3 Requirement applicable only to single rafter or joist vaulted ceilings.
- 4 Below grade walls shall be insulated either on the exterior to a minimum level of R-10, or on the interior to the same level as walls above grade. Exterior insulation installed on below grade walls shall be a water resistant material, manufactured for its intended use, and installed according to the manufacturer's specifications. See Section 602.2.
- 5 Floors over crawl spaces or exposed to ambient air conditions.
- 6 Required slab perimeter insulation shall be a water resistant material, manufactured for its intended use, and installed according to manufacturer's specifications. See Section 602.4.
- 7 The following options shall be applicable to buildings less than three stories: 0.50 maximum for glazing areas of 25% or less; 0.45 maximum for glazing areas of 30% or less.
- 8 This wall insulation requirement denotes R-19 wall cavity insulation plus R-5 foam sheathing.
- 9 Minimum HVAC Equipment efficiency requirement. 'Low' denotes an AFUE of 0.74. 'Med.' denotes an AFUE of 0.78. 'High' denotes an AFUE of 0.88. Minimum HVAC Equipment efficiency requirement for heat pumps. 'Low' denotes an HSPF of 6.35. 'Med' denotes an HSPF of 6.8. 'High' an HSPF of 7.7. Water and ground source heat pumps shall be considered as medium efficiency and have a minimum COP as required in Table 5-7.
- 10 Doors, including all fire doors, shall be assigned default U-factors from Table 10-6C or 10-6D.
11. Where a maximum glazing area is listed, the total glazing area (combined vertical plus overhead) as a percent of gross conditioned floor area shall be less than or equal to that value. Overhead glazing with U-factor of U=0.040 or less is not included in glazing area limitations.
12. Overhead glazing shall have U-factors determined in accordance with NFRC 100 or as specified in Section 502.1.5.

PERMANENT

AMENDATORY SECTION (Amending WSR 95-01-126, filed 12/21/94, effective 6/30/95)

WAC 51-11-0627 Table 6-3.

**TABLE 6-3
PRESCRIPTIVE REQUIREMENTS¹ FOR GROUP R OCCUPANCY
CLIMATE ZONE 2 • HEATING BY ELECTRIC RESISTANCE**

Option	Glazing % Floor Area	Glazing U-Value	Doors ¹⁰ U-value	Ceiling ²	Vaulted Ceiling ³	Wall Above Grade	Wall int ⁴ Below Grade	Wall ext ⁴ Below Grade	Floor ⁵	Slab ⁶ on Grade
I.	10%	0.38	0.20	R-38	R-30	R-21	R-21	R-12	R-30	R-10
II.	12%	0.40	0.20	R-38	R-30	R-19+R-5 ⁸	R-21	R-12	R-25	R-10
III.*	15%	0.40	0.20	R-38	R-30	R-19+R-5 ⁸	R-21	R-12	R-30	R-10
IV.	18%	0.38	0.20	R-38	R-30	R-19+R-5 ⁸	R-21	R-12	R-30	R-10
V. ⁷	21%	0.35	0.20	R-38 ^{Adv}	R-38	R-19+R-5 ⁸	R-21	R-12	R-30	R-10
VI. ⁷	25%	0.30 ⁷	0.20	R-49 ^{Adv}	R-38	R-19+R-5 ⁸	R-21	R-12	R-30	R-10
VII. ⁷	30%	0.28 ⁷	0.20	R-60 ^{Adv}	R-38	R-21+R-7.5 ⁹	R-21	R-12	R-30	R-10

*—Reference Case

- 1—Minimum requirements for each option listed. For example, if a proposed design has a glazing ratio to the conditioned floor area of 19%, it shall comply with all of the requirements of the 21% glazing option (or higher). Proposed designs which cannot meet the specific requirements of a listed option above may calculate compliance by Chapters 4 or 5 of this Code.
- 2—Requirement applies to all ceilings except single rafter or joist vaulted ceilings. 'Adv' denotes Advanced Framed Ceiling.
- 3—Requirement applicable only to single rafter or joist vaulted ceilings.
- 4—Below grade walls shall be insulated either on the exterior to a minimum level of R-10, or on the interior to the same level as walls above grade. Exterior insulation installed on below grade walls shall be a water resistant material, manufactured for its intended use, and installed according to the manufacturer's specifications. See Section 602.2.
- 5—Floors over crawl spaces or exposed to ambient air conditions.
- 6—Required slab perimeter insulation shall be a water resistant material, manufactured for its intended use, and installed according to manufacturer's specifications. See Section 602.4.
- 7—The following options shall be applicable to buildings less than three stories: 0.33 maximum for glazing areas of 25% or less; 0.31 maximum for glazing areas of 30% or less.
- 8—This wall insulation requirement denotes R-19 wall cavity insulation plus R-5 foam sheathing.
- 9—This wall insulation requirement denotes R-21 wall cavity insulation plus R-7.5 foam sheathing.
- 10—Doors, including all fire doors, shall be assigned default U-values from Table 10-6C or 10-6D.

PERMANENT

**TABLE 6-3
PRESCRIPTIVE REQUIREMENTS¹ FOR GROUP R OCCUPANCY
CLIMATE ZONE 2 • HEATING BY ELECTRIC RESISTANCE**

Option	Glazing Area ¹¹ : % of Floor	Glazing U-Factor		Door ¹⁰ U-Factor	Ceiling ²	Vaulted ³ Ceiling	Wall Above Grade	Wall ⁴ int Below Grade	Wall ⁴ ext Below Grade	Floor ⁵	Slab ⁶ on Grade
		Vertical	Overhead ¹²								
I.	10%	0.38	0.58	0.20	R-38	R-30	R-21	R-21	R-12	R-30	R-10
II.	12%	0.40	0.58	0.20	R-38	R-30	R-19+R-5 ⁸	R-21	R-12	R-25	R-10
III.*	15%	0.40	0.58	0.20	R-38	R-30	R-19+R-5 ⁸	R-21	R-12	R-30	R-10
IV.	18%	0.38	0.58	0.20	R-38	R-30	R-19+R-5 ⁸	R-21	R-12	R-30	R-10
V.	21%	0.35	0.58	0.20	R-38Adv	R-38	R-19+R-5 ⁸	R-21	R-12	R-30	R-10
VI.	25%	0.30	0.58	0.20	R-49Adv	R-38	R-19+R-5 ⁸	R-21	R-12	R-30	R-10
VII.	30%	0.28	0.58	0.20	R-60Adv	R-38	R-21+R-7.5 ⁹	R-21	R-12	R-30	R-10

* Reference Case

- 1 Minimum requirements for each option listed. For example, if a proposed design has a glazing ratio to the conditioned floor area of 19%, it shall comply with all of the requirements of the 21% glazing option (or higher). Proposed designs which cannot meet the specific requirements of a listed option above may calculate compliance by Chapters 4 or 5 of this Code.
- 2 Requirement applies to all ceilings except single rafter or joist vaulted ceilings. 'Adv' denotes Advanced Framed Ceiling.
- 3 Requirement applicable only to single rafter or joist vaulted ceilings.
- 4 Below grade walls shall be insulated either on the exterior to a minimum level of R-12, or on the interior to the same level as walls above grade. Exterior insulation installed on below grade walls shall be a water resistant material, manufactured for its intended use, and installed according to the manufacturer's specifications. See Section 602.2.
- 5 Floors over crawl spaces or exposed to ambient air conditions.
- 6 Required slab perimeter insulation shall be a water resistant material, manufactured for its intended use, and installed according to manufacturer's specifications. See Section 602.4.
- 7 The following options shall be applicable to buildings less than three stories: 0.33 maximum for glazing areas of 25% or less; 0.31 maximum for glazing areas of 30% or less.
- 8 This wall insulation requirement denotes R-19 wall cavity insulation plus R-5 foam sheathing.
- 9 This wall insulation requirement denotes R-21 wall cavity insulation plus R-7.5 foam sheathing.
- 10 Doors, including all fire doors, shall be assigned default U-factors from Table 10-6C or 10-6D.
11. Where a maximum glazing area is listed, the total glazing area (combined vertical plus overhead) as a percent of gross conditioned floor area shall be less than or equal to that value. Overhead glazing with U-factor of U=0.040 or less is not included in glazing area limitations.
12. Overhead glazing shall have U-factors determined in accordance with NFRC 100 or as specified in Section 502.1.5.

PERMANENT

AMENDATORY SECTION (Amending WSR 95-01-126, filed 12/21/94, effective 6/30/95)

WAC 51-11-0628 Table 6-4.

**TABLE 6-4
 PRESCRIPTIVE REQUIREMENTS¹ FOR GROUP R OCCUPANCY
 CLIMATE ZONE 2 • HEATING BY OTHER FUELS**

Option	HVAC ⁹ Equip. Effie.	Glazing % Floor Area	Glazing U-Value	Doors ¹⁰ U-Value	Ceiling ²	Vaulted Ceiling ³	Wall Above Grade	Wall int ⁴ Below Grade	Wall ext ⁴ Below Grade	Floor ⁵	Slab ⁶ on Grade
I.	Med.	10%	0.70	0.40	R-38	R-30	R-19	R-19	R-12	R-25	R-10
II.	Med.	12%	0.65	0.40	R-38	R-30	R-19	R-19	R-12	R-25	R-10
III.	High	17%	0.65	0.40	R-38	R-30	R-19	R-19	R-12	R-25	R-10
IV.*	Med.	17%	0.60	0.40	R-38	R-30	R-19	R-19	R-12	R-30	R-10
V.	Low	17%	0.50	0.40	R-38	R-30	R-19	R-19	R-12	R-30	R-10
VI.	Med.	21%	0.50	0.40	R-38	R-30	R-19	R-19	R-12	R-30	R-10
VII.	Med.	25%	0.40 ⁷	0.40	R-38	R-30	R-19	R-19	R-12	R-30	R-10
VIII.	Med.	30%	0.40 ⁷	0.40	R-38	R-30	R-19	R-19	R-12	R-30	R-10

* Reference Case

- 1—Minimum requirements for each option listed. For example, if a proposed design has a glazing ratio to the conditioned floor area of 19%, it shall comply with all of the requirements of the 21% glazing option (or higher). Proposed designs which cannot meet the specific requirements of a listed option above may calculate compliance by Chapters 4 or 5 of this Code.
- 2—Requirement applies to all ceilings except single-rafter or joist vaulted ceilings. 'Adv' denotes Advanced Framed Ceiling.
- 3—Requirement applicable only to single-rafter or joist vaulted ceilings.
- 4—Below-grade walls shall be insulated either on the exterior to a minimum level of R-10, or on the interior to the same level as walls above grade. Exterior insulation installed on below-grade walls shall be a water-resistant material, manufactured for its intended use, and installed according to the manufacturer's specifications. See Section 602.2.
- 5—Floors over crawl spaces or exposed to ambient air conditions.
- 6—Required slab perimeter insulation shall be a water-resistant material, manufactured for its intended use, and installed according to manufacturer's specifications. See Section 602.4.
- 7—The following options shall be applicable to buildings less than three stories: 0.45 maximum for glazing areas of 25% or less; 0.40 maximum for glazing areas of 30% or less.
- 8—This wall insulation requirement denotes R-19 wall cavity insulation plus R-5 foam sheathing.
- 9—Minimum HVAC Equipment efficiency requirement. 'Low' denotes an AFUE of 0.74. 'Med.' denotes an AFUE of 0.78. 'High' denotes an AFUE of 0.88.
- 10—Doors, including all fire doors, shall be assigned default U-values from Table 10-6C or 10-6D.

PERMANENT

**TABLE 6-4
 PRESCRIPTIVE REQUIREMENTS¹ FOR GROUP R OCCUPANCY
 CLIMATE ZONE 2 • HEATING BY OTHER FUELS**

Option	HVAC ⁹ Equip. Effic.	Glazing Area ¹¹ : % of Floor	Glazing U-Factor		Door ¹⁰ U-Factor	Ceiling ²	Vaulted Ceiling ³	Wall Above Grade	Wall• int ⁴ Below Grade	Wall• ext ⁴ Below Grade	Floor ⁵	Slab ⁶ on Grade
			Vertical	Overhead ¹²								
I.	Med.	10%	0.70	0.64	0.40	R-38	R-30	R-19	R-19	R-12	R-25	R-10
II.	Med.	12%	0.65	0.64	0.40	R-38	R-30	R-19	R-19	R-12	R-25	R-10
III.	High	17%	0.65	0.64	0.40	R-38	R-30	R-19	R-19	R-12	R-30	R-10
IV.*	Med.	17%	0.60	0.64	0.40	R-38	R-30	R-19	R-19	R-12	R-30	R-10
V.	Low	17%	0.50	0.64	0.40	R-38	R-30	R-19	R-19	R-12	R-30	R-10
VI.	Med.	21%	0.50	0.64	0.40	R-38	R-30	R-19	R-19	R-12	R-30	R-10
VII. ⁷	Med.	25%	0.40 ⁷	0.64	0.40	R-38	R-30	R-19	R-19	R-12	R-30	R-10
VIII. ⁷	Med.	30%	0.40 ⁷	0.64	0.40	R-38	R-30	R-19	R-19	R-12	R-30	R-10
IX.	Med.	unlimited	0.25	0.40	0.40	R-38	R-30	R-19	R-19	R-12	R-30	R-10

* Reference Case

- 1 Minimum requirements for each option listed. For example, if a proposed design has a glazing ratio to the conditioned floor area of 19%, it shall comply with all of the requirements of the 21% glazing option (or higher). Proposed designs which cannot meet the specific requirements of a listed option above may calculate compliance by Chapters 4 or 5 of this Code.
- 2 Requirement applies to all ceilings except single rafter or joist vaulted ceilings. 'Adv' denotes Advanced Framed Ceiling.
- 3 Requirement applicable only to single rafter or joist vaulted ceilings.
- 4 Below grade walls shall be insulated either on the exterior to a minimum level of R-12, or on the interior to the same level as walls above grade. Exterior insulation installed on below grade walls shall be a water resistant material, manufactured for its intended use, and installed according to the manufacturer's specifications. See Section 602.2.
- 5 Floors over crawl spaces or exposed to ambient air conditions.
- 6 Required slab perimeter insulation shall be a water resistant material, manufactured for its intended use, and installed according to manufacturer's specifications. See Section 602.4.
- 7 The following options shall be applicable to buildings less than three stories: 0.45 maximum for glazing areas of 25% or less; 0.40 maximum for glazing areas of 30% or less.
- 8 This wall insulation requirement denotes R-19 wall cavity insulation plus R-5 foam sheathing.
- 9 Minimum HVAC Equipment efficiency requirement. 'Low' denotes an AFUE of 0.74. 'Med.' denotes an AFUE of 0.78. 'High' denotes an AFUE of 0.88. Minimum HVAC Equipment efficiency requirement for heat pumps. 'Low' denotes an HSPF of 6.35. 'Med' denotes an HSPF of 6.8. 'High' an HSPF of 7.7. Water and ground source heat pumps shall be considered as medium efficiency and have a minimum COP as required in Table 5-7.
- 10 Doors, including all fire doors, shall be assigned default U-factors from Table 10-6C or 10-6D.
11. Where a maximum glazing area is listed, the total glazing area (combined vertical plus overhead) as a percent of gross conditioned floor area shall be less than or equal to that value. Overhead glazing with U-factor of U=0.040 or less is not included in glazing area limitations.
12. Overhead glazing shall have U-factors determined in accordance with NFRC 100 or as specified in Section 502.1.5.

PERMANENT

AMENDATORY SECTION (Amending WSR 95-01-126, filed 12/21/94, effective 6/30/95)

WAC 51-11-0629 Table 6-5.

**TABLE 6-5
LOG HOMES PRESCRIPTIVE REQUIREMENTS¹
HEATING BY ELECTRIC RESISTANCE**

Option	Average ² Log Thickness	Glazing-% Floor-Area	Glazing U-Value	Doors ⁸ U-Value	Ceiling ³	Vaulted ⁴ Ceiling	Floor ⁵	Slab ⁶ on Grade
Climate Zone 1								
I. ⁷	5.5"	15%	0.31	0.14	R-60 Adv	R-38	R-38	R-10
II. ⁷	7.5"	15%	0.40	0.20	R-60 Adv	R-38	R-30	R-10
III.*	9.6"	15%	0.40	0.20	R-38	R-30	R-30	R-10
Climate Zone 2								
IV. ⁷	6.7"	15%	0.31	0.14	R-60 Adv	R-38	R-38	R-10
V. ⁷	8.7"	15%	0.40	0.14	R-60 Adv	R-38	R-38	R-10
VI. ⁷	9.8"	15%	0.40	0.20	R-60 Adv	R-38	R-30	R-10
VII. ⁷	10.5"	15%	0.40	0.20	R-49 Adv	R-38	R-30	R-10
VIII.*	13.5"	15%	0.40	0.20	R-38	R-30	R-30	R-10

* Reference Case

1- For Group R Occupancy use Table 6-5 for only the portion of floor area using log/solid timber walls. Use Tables 6-1 to 6-4 for all other portions of the floor area. Minimum requirements are for each option listed. Interpolations between options is not permitted. Proposed designs which cannot meet the specific requirements of a listed option above may calculate compliance by Chapters 4 or 5 of this Code.

2- Required minimum average log thickness.

3- 'Adv' denotes Advanced Framing. Requirement applies to all ceilings except single rafter joist vaulted ceilings.

4- Requirement applicable only to single rafter joist vaulted ceilings.

5- Floors over crawl spaces or exposed to ambient air conditions.

6- Required slab perimeter insulation shall be water resistant material, manufactured for its intended use, and installed according to manufacturer's specifications.

7- These options shall be applicable to buildings less than three stories.

8- Doors, including all fire doors, shall be assigned default U values from Table 10-6C or 10-6D.

PERMANENT

**TABLE 6-5
LOG HOMES PRESCRIPTIVE REQUIREMENTS¹
HEATING BY ELECTRIC RESISTANCE**

Option	Average Log Thickness	Glazing Area ² : % of Floor	Glazing U-Factor		Door U-Factor	Ceiling	Vaulted Ceiling	Floor	Slab on Grade
			Vertical	Overhead ¹⁰					
Climate Zone 1									
I.	5.5"	15%	0.31	0.58	0.14	R-60 Adv	R-38	R-38	R-10
II.	7.5"	15%	0.40	0.58	0.20	R-60 Adv	R-38	R-30	R-10
III.*	9.6"	15%	0.40	0.58	0.20	R-38	R-30	R-30	R-10
Climate Zone 2									
IV.	6.7"	15%	0.31	0.58	0.14	R-60 Adv	R-38	R-38	R-10
V.	8.7"	15%	0.40	0.58	0.14	R-60 Adv	R-38	R-38	R-10
VI.	9.8"	15%	0.40	0.58	0.20	R-60 Adv	R-38	R-30	R-10
VII.	10.5"	15%	0.40	0.58	0.20	R-49 Adv	R-38	R-30	R-10
VIII.*	13.5"	15%	0.40	0.58	0.20	R-38	R-30	R-30	R-10

* Reference Case

- 1 For Group R Occupancy use Table 6-5 for only the portion of floor area using log/solid timber walls. Use Tables 6-1 to 6-4 for all other portions of the floor area. Minimum requirements are for each option listed. Interpolations between options is not permitted. Proposed designs which cannot meet the specific requirements of a listed option above may calculate compliance by Chapters 4 or 5 of this Code.
- 2 Required minimum average log thickness.
- 3 'Adv' denotes Advanced Framing. Requirement applies to all ceilings except single rafter joist vaulted ceilings.
- 4 Requirement applicable only to single rafter joist vaulted ceilings.
- 5 Floors over crawl spaces or exposed to ambient air conditions.
- 6 Required slab perimeter insulation shall be water resistant material, manufactured for its intended use, and installed according to manufacturer's specifications.
- 7 These options shall be applicable to buildings less than three stories.
- 8 Doors, including all fire doors, shall be assigned default U-factors from Table 10-6C or 10-6D.
9. Where a maximum glazing area is listed, the total glazing area (combined vertical plus overhead) as a percent of gross conditioned floor area shall be less than or equal to that value. Overhead glazing with U-factor of U=0.040 or less is not included in glazing area limitations.
10. Overhead glazing shall have U-factors determined in accordance with NFRC 100 or as specified in Section 502.1.5.

PERMANENT

AMENDATORY SECTION (Amending WSR 95-01-126, filed 12/21/94, effective 6/30/95)

WAC 51-11-0630 Table 6-6.

TABLE 6-6
LOG HOMES PRESCRIPTIVE REQUIREMENTS¹
HEATING BY OTHER FUELS

Climate Zone 1											
Option	HVAC ⁹ Equip. Effic.	Glazing % Floor Area	Glazing U-Value	Doors ¹⁰ U-Value	Ceiling ²	Vaulted Ceiling ³	Wall Above Grade ¹¹	Wall ⁴ int ⁴ Below Grade	Wall ⁴ ext ⁴ Below Grade	Floor ⁵	Slab ⁶ on Grade
I	Med.	10%	0.70	0.40	R-30	R-30	R-15	R-15	R-10	R-19	R-10
II	Med.	12%	0.65	0.40	R-30	R-30	R-15	R-15	R-10	R-19	R-10
III	High	21%	0.75	0.40	R-30	R-30	R-19	R-19	R-10	R-19	R-10
IV*	Med.	21%	0.65	0.40	R-30	R-30	R-19	R-19	R-10	R-19	R-10
V	Low	21%	0.60	0.40	R-30	R-30	R-19	R-19	R-10	R-19	R-10
VI ⁷	Med.	25%	0.45 ⁷	0.40	R-38	R-30	R-19	R-19	R-10	R-25	R-10
VII ⁷	Med.	30%	0.40 ⁷	0.40	R-30	R-30	R-19	R-19	R-10	R-25	R-10
Climate Zone 2											
Option	HVAC ⁹ Equip. Effic.	Glazing % Floor Area	Glazing U-Value	Doors ¹⁰ U-Value	Ceiling ²	Vaulted Ceiling ³	Wall Above Grade ¹¹	Wall ⁴ int ⁴ Below Grade	Wall ⁴ ext ⁴ Below Grade	Floor ⁵	Slab ⁶ on Grade
I	Med.	10%	0.70	0.40	R-38	R-30	R-19	R-19	R-12	R-25	R-10
II	Med.	12%	0.65	0.40	R-38	R-30	R-19	R-19	R-12	R-25	R-10
III	High	17%	0.65	0.40	R-38	R-30	R-19	R-19	R-12	R-25	R-10
IV*	Med.	17%	0.60	0.40	R-38	R-30	R-19	R-19	R-12	R-30	R-10
V	Low	17%	0.50	0.40	R-38	R-30	R-19	R-19	R-12	R-30	R-10
VI	Med.	21%	0.50	0.40	R-38	R-30	R-19	R-19	R-12	R-30	R-10
VII	Med.	25%	0.40 ⁸	0.40	R-38	R-30	R-19	R-19	R-12	R-30	R-10
VIII	Med.	30%	0.40 ⁸	0.40	R-38	R-30	R-19	R-19	R-12	R-30	R-10

* Reference Case

- 1 Minimum requirements for each option listed. For example, if a proposed design has a glazing ratio to the conditioned floor area of 19%, it shall comply with all of the requirements of the 21% glazing option (or higher). Proposed designs which cannot meet the specific requirements of a listed option above may calculate compliance by Chapters 4 or 5 of this Code.
- 2 Requirement applies to all ceilings except single rafter or joist vaulted ceilings. 'Adv' denotes Advanced Framed Ceiling.
- 3 Requirement applicable only to single rafter or joist vaulted ceilings.
- 4 Below grade walls shall be insulated either on the exterior to a minimum level of R-10, or on the interior to the same level as walls above grade. Exterior insulation installed on below grade walls shall be a water resistant material, manufactured for its intended use, and installed according to the manufacturer's specifications. See Section 602.2.
- 5 Floors over crawl spaces or exposed to ambient air conditions.
- 6 Required slab perimeter insulation shall be a water resistant material, manufactured for its intended use, and installed according to manufacturer's specifications. See Section 602.4.
- 7 The following options shall be applicable to buildings less than three stories: 0.50 maximum for glazing areas of 25% or less; 0.45 maximum for glazing areas of 30% or less.
- 8 The following options shall be applicable to buildings less than three stories: 0.45 maximum for glazing areas of 25% or less; 0.40 maximum for glazing areas of 30% or less.
- 9 Minimum HVAC Equipment efficiency requirement. 'Low' denotes an AFUE of 0.74. 'Med.' denotes an AFUE of 0.78. 'High' denotes an AFUE of 0.88. Minimum HVAC Equipment efficiency requirement for heat pumps. 'Low' denotes an HSPF of 6.35. 'Med' denotes an HSPF of 6.8. 'High' an HSPF of 7.7. Water and ground source heat pumps shall be considered as medium efficiency and have a minimum COP as required in Table 5-7.
- 10 Doors, including all fire doors, shall be assigned default U values from Table 10-6C or 10-6D.
- 11 Log and solid timber walls with a minimum average thickness of 3.5" are exempt from this insulation requirement.

PERMANENT

**TABLE 6-6
LOG HOMES PRESCRIPTIVE REQUIREMENTS¹
HEATING BY OTHER FUELS**

Option	HVAC Equip. Effic.	Glazing Area ¹² : % of Floor	Glazing U-Factor		Door U-Factor ¹⁰	Ceiling ²	Vaulted Ceiling ³	Wall Above Grade ¹¹	Wall int Below Grade	Wall ext Below Grade	Floor ⁵	Slab on Grade ⁶
			Vertical	Overhead ¹³								
Climate Zone 1												
I.	Med.	10%	0.70	0.68	0.40	R-30	R-30	R-15	R-15	R-10	R-19	R-10
II.	Med.	12%	0.65	0.68	0.40	R-30	R-30	R-15	R-15	R-10	R-19	R-10
III.	High	21%	0.75	0.68	0.40	R-30	R-30	R-19	R-19	R-10	R-19	R-10
IV.*	Med.	21%	0.65	0.68	0.40	R-30	R-30	R-19	R-19	R-10	R-19	R-10
V.	Low	21%	0.60	0.68	0.40	R-30	R-30	R-19	R-19	R-10	R-19	R-10
VI. ⁷	Med.	25%	0.45 ⁸	0.68	0.40	R-38	R-30	R-19	R-19	R-10	R-25	R-10
VII. ⁷	Med.	30%	0.40 ⁸	0.68	0.40	R-30	R-30	R-19	R-19	R-10	R-25	R-10
VIII.	Med.	unlimited	0.25	0.40	0.40	R-30	R-30	R-19	R-19	R-10	R-25	R-10
Climate Zone 2												
I.	Med.	10%	0.70	0.64	0.40	R-38	R-30	R-19	R-19	R-12	R-25	R-10
II.	Med.	12%	0.65	0.64	0.40	R-38	R-30	R-19	R-19	R-12	R-25	R-10
III.	High	17%	0.65	0.64	0.40	R-38	R-30	R-19	R-19	R-12	R-25	R-10
IV.*	Med.	17%	0.60	0.64	0.40	R-38	R-30	R-19	R-19	R-12	R-30	R-10
V.	Low	17%	0.50	0.64	0.40	R-38	R-30	R-19	R-19	R-12	R-30	R-10
VI.	Med.	21%	0.50	0.64	0.40	R-38	R-30	R-19	R-19	R-12	R-30	R-10
VII.	Med.	25%	0.40 ⁸	0.64	0.40	R-38	R-30	R-19	R-19	R-12	R-30	R-10
VIII.	Med.	30%	0.40 ⁸	0.64	0.40	R-38	R-30	R-19	R-19	R-12	R-30	R-10
IX.	Med.	unlimited	0.25	0.40	0.40	R-38	R-30	R-19	R-19	R-12	R-30	R-10

* Reference Case

- 1 Minimum requirements for each option listed. For example, if a proposed design has a glazing ratio to the conditioned floor area of 19%, it shall comply with all of the requirements of the 21% glazing option (or higher). Proposed designs which cannot meet the specific requirements of a listed option above may calculate compliance by Chapters 4 or 5 of this Code.
- 2 Requirement applies to all ceilings except single rafter or joist vaulted ceilings. 'Adv' denotes Advanced Framed Ceiling.
- 3 Requirement applicable only to single rafter or joist vaulted ceilings.
- 4 Below grade walls shall be insulated either on the exterior to a minimum level of R-10, or on the interior to the same level as walls above grade. Exterior insulation installed on below grade walls shall be a water resistant material, manufactured for its intended use, and installed according to the manufacturer's specifications. See Section 602.2.
- 5 Floors over crawl spaces or exposed to ambient air conditions.
- 6 Required slab perimeter insulation shall be a water resistant material, manufactured for its intended use, and installed according to manufacturer's specifications. See Section 602.4.
- 7 The following options shall be applicable to buildings less than three stories: 0.50 maximum for glazing areas of 25% or less; 0.45 maximum for glazing areas of 30% or less.
- 8 The following options shall be applicable to buildings less than three stories: 0.45 maximum for glazing areas of 25% or less; 0.40 maximum for glazing areas of 30% or less.
- 9 Minimum HVAC Equipment efficiency requirement. 'Low' denotes an AFUE of 0.74. 'Med.' denotes an AFUE of 0.78. 'High' denotes an AFUE of 0.88. Minimum HVAC Equipment efficiency requirement for heat pumps. 'Low' denotes an HSPF of 6.35. 'Med' denotes an HSPF of 6.8. 'High' an HSPF of 7.7. Water and ground source heat pumps shall be considered as medium efficiency and have a minimum COP as required in Table 5-7.
- 10 Doors, including all fire doors, shall be assigned default U-factors from Table 10-6C or 10-6D.
- 11 Log and solid timber walls with a minimum average thickness of 3.5" are exempt from this insulation requirement.
- 12 Where a maximum glazing area is listed, the total glazing area (combined vertical plus overhead) as a percent of gross conditioned floor area shall be less than or equal to that value. Overhead glazing with U-factor of U=0.040 or less is not included in glazing area limitations.
13. Overhead glazing shall have U-factors determined in accordance with NFRC 100 or as specified in Section 502.1.5.

PERMANENT

AMENDATORY SECTION (Amending WSR 91-01-112, filed 12/19/90, effective 7/1/91)

WAC 51-11-0701 Standards. The standards and portions thereof, which are referred to in various parts of this Code shall be part of the Washington State Energy Code and are hereby declared to be a part of this Code.

CODE STANDARD NO.	TITLE AND SOURCE
RS-1	((1989)) 1997 ASHRAE ((Handbook of)) Fundamentals Handbook
((RS-2	Standard Method of Test for Rate of Air Leakage Through Exterior Windows, Curtain Walls and Doors, Specification E283-84 of ASTM. Specifications for Aluminum Windows, ANSI A134.1, 1972. Specifications for Aluminum Sliding Glass Doors, ANSI A134.2, 1972. Industry Standard for Wood Window Units, NWWDA IS-2-87, Industry Standard for Wood Sliding Patio Doors, NWWDA IS-3-88.
RS-2B	AAMA 1503.1-88, 1988 Voluntary Test Method for Thermal transmittance of windows, doors and glazed wall sections.
RS-2C	ASTM C236-87 test for thermal conductance and transmittance of built up sections by means of a guarded hot box; and ASTM C976-82 thermal performance of building assemblies by means of the calibrated hot box.
RS-3	ASHRAE Standard 62-89 Ventilation for Acceptable Indoor Air Quality.))
RS-2	through RS-3 (Reserved.)
RS-4	ASHRAE Standard ((55-84)) 55-92 Thermal Environmental Conditions for Human Occupancy.
((RS-5	DOE Test Procedures for Water Heaters, 10 CFR Part 430 Appendix E to Subpart B.
RS-6	Household Automatic Electric Storage Type Water Heaters, ANSI C72.1-1972.
RS-7	Gas Water Heaters, Volume III, Circulating Tank, Instantaneous and Large Automatic Storage Type Water Heaters, ANSI Z21.10.3, 1974.
RS-8	IES Lighting Handbook, Illuminating Engineering Society, 1984 Reference Volume, 1987 Application Volume.))
RS-5	through RS-8 (Reserved.)
RS-9	ASHRAE Standard 90.1-1989, Efficient Design of New Buildings Except New Low-Rise Residential Buildings.
RS-10	Standard for Packaged Terminal Air Conditioners and Heat Pumps, ARI Standard ((310-90)) 310/380-93.
RS-11	((1987)) 1995 ASHRAE HVAC Systems and Applications Handbook.
((RS-12	Energy Calculations I: Procedures for Determining Heating and Cooling Loads for Computerizing Energy Calculations—Algorithms for Building Heat Transfer Subsystems, ASHRAE 1975.
RS-13	Energy Calculations II: Procedures for Simulating the Performance of Components and Systems for Energy Calculations, 3rd Edition, ASHRAE 1975.
RS-14	Standard for Positive Displacement Refrigerant Compressor and Condensing Units, ARI Standard 520-74.))
RS-12	through RS-14 (Reserved.)
RS-15	((1988)) 1996 ASHRAE System and Equipment Handbook.
RS-16	SMACNA, Installation Standards for Residential Heating and Air Conditioning Systems((— Installation Standards, SMACNA, February, 1977)), 6th Edition, 1988.
RS-17	SMACNA, HVAC Duct Construction Standards Metal and Flexible ((Construction Standards, 1st Edition, Washington, D.C., 1985)), 2nd Edition, 1995.
RS-18	Same as Standard RS-17.
RS-19	SMACNA, Fibrous Glass Duct Construction Standards, 6th Edition, ((Washington, D.C., 1990)) 1992.
RS-20	((1990)) 1994 ASHRAE Refrigeration ((Volume)) Handbook.
RS-21	((Standard for Package Terminal Heat Pumps, ARI Standard 380-90.)) Same as Standard RS-10.
((RS-22	ASTM E779-87 Standard practice for measuring air leakage by the fan pressurization method.
RS-23	ASTM E741 Standard practice for measuring air leakage by the tracer dilution method.
RS-24	Standard 24 CFR Part 3280 HUD.))
RS-22	through RS-24 (Reserved.)
RS-25	Thermal Bridge in Sheet Metal Construction from Appendix E of Standard RS-9.
RS-26	Super Good Cents Technical Reference.
	ACCREDITED AUTHORITATIVE AGENCIES
	((AAMA refers to the American Architectural Manufacturers Association, 35 East Wacker Drive, Chicago, IL 60601))
	ANSI refers to the American National Standards Institute, Inc., ((1430 Broadway.)) 11 West 42nd Street, New York, NY ((10018)) 10036 Phone (212) 642-4900 Fax (212) 398-0023, Internet www.ansi.org
	ARI refers to the Air Conditioning and Refrigeration Institute, ((1815 North Fort Myer Drive)) 4301 N. Fairfax Dr., Suite 425, Arlington, VA ((22209)) 22203

Phone (703) 524-8800 Fax (703) 528-3816, Internet www.ari.org

ASHRAE refers to the American Society of Heating, Refrigerating, and Air Conditioning Engineers, Inc., 1791 Tullie Circle, N.E., Atlanta, GA 30329
Phone (404) 636-8400 Fax (404) 321-5478, Internet www.ashrae.org

ASTM refers to the American Society for Testing and Materials, ~~((1916 Race Street, Philadelphia, PA 19103))~~ 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959
Phone (610) 832-9585 Fax (610) 832-9555, Internet www.astm.org

IES refers to the Illuminating Engineering Society, ~~((345 East 47th Street))~~ 120 Wall Street, Floor 17, New York, NY ((40017)) 10005-4001
Phone (212) 248-5000 Fax (212) 248-5017, Internet www.ies.org

~~((NESCA refers to the National Environmental System Contractors Association, 1501 Wilson Blvd., Arlington, VA 22209))~~

NFRC refers to the National Fenestration Rating Council, Incorporated, 1300 Spring Street, Suite 120, Silver Spring, Maryland 20910
Phone (301) 589-NFRC Fax (301) 588-0854, Internet www.nfrc.org

~~((NWWDA refers to the National Wood Window and Door Association, 1400 East Touhy Avenue, Suite G-54, Des Plaines, IL 60018))~~

SMACNA refers to the Sheet Metal and Air Conditioning Contractors National Association, Inc., ~~((8224 Old Courthouse Rd., Tysons Corner, Vienna, VA 22180))~~ 4201 Lafayette Center Drive, P.O. Box 221230, Chantilly, VA 20153-1230
Phone (703) 803-2980 Fax (703) 803-3732, Internet www.smacna.org

AMENDATORY SECTION (Amending WSR 91-01-112, filed 12/19/90, effective 7/1/91)

WAC 51-11-0800 Section 0800—Suggested software for chapter 4 systems analysis approach for Group R occupancy.

Program Name:	Source
CALPAS 3	((BERKELEY SOLAR GROUP 455 Santa Clara Ave. Oakland, CA 94610 (415) 843-7600)) BSG Software 40 Lincoln Street Lexington, MA 02173 (617) 861-0109
((DATA CAL	SUNRISE ENERGY, INC. 5708 43rd Ave E. Tacoma, WA 98443 (206) 922-5218
DOE-2	ACROSOFTE INTERNATIONAL, INC. 9745 E. Hampton Ave. Suite 230

~~Denver, CO 80231
(303) 368-9225))~~

DOE 2 ACROSOFTE/CAER Engineers
1204-1/2 Washington Avenue
Golden, CO 80401
303-279-8136

F-LOAD F-CHART SOFTWARE
 4406 Fox Bluff Rd.
 Middleton, WI 53562
~~((608) 836-8536))~~
(608) 836-8531

MICROPAS ENERCOMP
~~((123 C Street~~
Davis, CA 95616
(916) 753-3400))
1721 Arroyo Drive
Auburn, CA 95603
(800) 755-5903

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AMENDATORY SECTION (Amending WSR 91-01-112, filed 12/19/90, effective 7/1/91)

WAC 51-11-1002 Section 1002: Below grade walls and slabs.

1002.1 General: Table 10-1 lists heat-loss coefficients for below-grade walls and floors.

Coefficients for below-grade walls are given as ~~((U-values))~~ U-factors ~~((Btu/°F·hr))~~ Btu/hr·°F per square foot of wall area). Coefficients for below-grade slabs are listed as ~~((F-values))~~ F-factors ~~((Btu/°F·hr))~~ Btu/hr·°F per lineal foot of slab perimeter).

Below-grade wall ~~((U-values))~~ U-factors are only valid when used with the accompanying below-grade slab ~~((F-value))~~ F-factor, and vice versa.

1002.2 Component Description: All below-grade walls are assumed to be eight-inch concrete. The wall is assumed to extend from the slab upward to the top of the mud sill for the distance specified in Table 10-1, with six inches of concrete wall extending above grade.

Interior insulation is assumed to be fiberglass batts placed in the cavity formed by 2x4 framing on twenty-four inch centers with one-half inch of gypsum board as the interior finish material. Exterior insulation is assumed to be

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applied directly to the exterior of the below-grade wall from the top of the wall to the footing. The exterior case does not assume any interior framing or sheetrock.

In all cases, the entire wall surface is assumed to be insulated to the indicated nominal level with the appropriate framing and insulation application. Coefficients are listed for wall depths of two, three and one-half, and seven feet below grade. Basements shallower than two feet should use on-grade slab coefficients.

Heat-loss calculations for wall areas above grade should use above-grade wall ((~~U-values~~) U-factors), beginning at the mudsill.

1002.3 Insulation Description: Coefficients are listed for the following four configurations:

1. Uninsulated: No insulation or interior finish.
2. Interior insulation: Interior 2x4 insulated wall without a thermal break between concrete wall and slab.
3. Interior insulation w/thermal break: Interior 2x4 insulated wall with R-5 rigid board providing a thermal break between the concrete wall and the slab.
4. Exterior insulation: Insulation applied directly to the exterior surface of the concrete wall.

TABLE 10-1
~~DEFAULT WALL U-VALUES AND SLAB F-VALUES FOR BASEMENTS~~

	Below-Grade Wall U-value	Below-Grade Slab F-value
2-Foot Depth Below-Grade		
Uninsulated	0.350	0.59
R-11 Interior	0.066	0.68
R-11 Interior w/tb	0.070	0.60
R-19 Interior	0.043	0.69
R-19 Interior w/tb	0.045	0.61
R-10 Exterior	0.070	0.60
R-12 Exterior	0.061	0.60
3.5-Foot Depth Below-Grade		
Uninsulated	0.278	0.53
R-11 Interior	0.062	0.63
R-11 Interior w/tb	0.064	0.57
R-19 Interior	0.041	0.64
R-19 Interior w/tb	0.042	0.57
R-10 Exterior	0.064	0.57
R-12 Exterior	0.057	0.57
7-Foot Depth Below-Grade		
Uninsulated	0.193	0.46
R-11 Interior	0.054	0.56
R-11 Interior w/tb	0.056	0.42
R-19 Interior	0.037	0.57
R-19 Interior w/tb	0.038	0.43
R-10 Exterior	0.056	0.42
R-12 Exterior	0.050	0.42

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**TABLE 10-1
DEFAULT WALL U-FACTORS AND SLAB F-FACTORS FOR BASEMENTS**

	Below Grade Wall U-factor	Below Grade Slab F-factor
2-Foot Depth Below Grade		
Uninsulated	0.350	0.59
R-11 Interior	0.066	0.68
R-11 Interior w/tb	0.070	0.60
R-19 Interior	0.043	0.69
R-19 Interior w/tb	0.045	0.61
R-10 Exterior	0.070	0.60
R-12 Exterior	0.061	0.60
3.5-Foot Depth Below Grade		
Uninsulated	0.278	0.53
R-11 Interior	0.062	0.63
R-11 Interior w/tb	0.064	0.57
R-19 Interior	0.041	0.64
R-19 Interior w/tb	0.042	0.57
R-10 Exterior	0.064	0.57
R-12 Exterior	0.057	0.57
7-Foot Depth Below Grade		
Uninsulated	0.193	0.46
R-11 Interior	0.054	0.56
R-11 Interior w/tb	0.056	0.42
R-19 Interior	0.037	0.57
R-19 Interior w/tb	0.038	0.43
R-10 Exterior	0.056	0.42
R-12 Exterior	0.050	0.42

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AMENDATORY SECTION (Amending WSR 91-01-112, filed 12/19/90, effective 7/1/91)

WAC 51-11-1003 Section 1003: On-grade slab floors.

1003.1 General: Table 10-2 lists heat-loss coefficients for heated on-grade slab floors, in units of Btu/°F•hr per lineal foot of perimeter.

1003.2 Component Description: All on-grade slab floors are assumed to be six-inch concrete poured directly onto the earth. The bottom of the slab is assumed to be at grade line. Monolithic and floating slabs are not differentiated.

Soil is assumed to have a conductivity of 0.75 Btu/hr·°F·ft². Slabs two-feet or more below grade should use basement coefficients.

1003.3 Insulation Description: Coefficients are provided for the following three configurations:

Two-Foot (or four-foot) vertical: Insulation is applied directly to the slab exterior, extending downward from the top of the slab to a depth of two-feet (or four-feet) below grade.

Two-Foot (or four-foot) horizontal: Insulation is applied directly to the underside of the slab, and run horizontally from the perimeter inward for two-feet (or four-feet). The slab edge is exposed in this configuration.

Note: A horizontal installation with a thermal break of at least R-5 at the slab edge should use the vertical-case ((F-values)) F-factors.

Fully insulated slab: Insulation extends from the top of the slab, along the entire perimeter, and completely covers the area under the slab.

TABLE 10-2
DEFAULT F-VALUES FOR ON-GRADE SLABS

Insulation type	R-0	R-5	R-10	R-15
Unheated Slab				
Uninsulated slab	0.73	—	—	—
2-ft Horizontal (No thermal break)	—	0.70	0.70	0.69
4-ft Horizontal (No thermal break)	—	0.67	0.64	0.63
2-ft Vertical	—	0.58	0.54	0.52
4-ft Vertical	—	0.54	0.48	0.45
Fully insulated slab	—	—	0.36	—
Heated Slab				
Uninsulated slab	0.84	—	—	—
Fully insulated slab	—	0.74	0.55	0.44
R-5 Center (With perimeter insulation)	—	—	0.66	0.62
R-10 Center (With perimeter insulation)	—	—	—	0.51
3-ft Vertical	—	—	0.78	—

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TABLE 10-2
DEFAULT F-FACTORS FOR ON-GRADE SLABS

Insulation type	R-0	R-5	R-10	R-15
Unheated Slab				
Uninsulated slab	0.73	--	--	--
2-ft Horizontal (No thermal break)	--	0.70	0.70	0.69
4-ft Horizontal (No thermal break)	--	0.67	0.64	0.63
2-ft Vertical	--	0.58	0.54	0.52
4-ft Vertical	--	0.54	0.48	0.45
Fully insulated slab	--	--	0.36	--
Heated Slab				
Uninsulated slab	0.84	--	--	--
Fully insulated slab	--	0.74	0.55	0.44
R-5 Center (With perimeter insulation)	--	--	0.66	0.62
R-10 Center (With perimeter insulation)	--	--	--	0.51
3-ft Vertical	--	--	0.78	--

Reviser's note: RCW 34.05.395 requires the use of underlining and deletion marks to indicate amendments to existing rules. The rule published above varies from its predecessor in certain respects not indicated by the use of these markings.

AMENDATORY SECTION (Amending WSR 91-01-112, filed 12/19/90, effective 7/1/91)

WAC 51-11-1004 Section 1004: Crawlspace floors.

1004.1 General: Tables 10-3 and 10-4 list heat-loss coefficients for floors over crawlspaces in units of Btu/°F•hr per square foot of floor.

They are derived from procedures listed in RS-1, listed in Chapter 7, assuming an average outdoor temperature of 45° F, an average indoor temperature of 65° F, and a crawlspace area of one thousand three hundred fifty ft² and one hundred fifty ft of perimeter. The crawlspace is assumed to be 2.5-foot high, with twenty-four inches below grade and six inches above grade.

1004.2 Crawlspace Description: Four crawlspace configurations are considered: Vented, unvented, enclosed and heated plenum.

Vented crawlspaces: Assumed to have three air-changes per hour, with at least one ft² of net-free ventilation in the foundation for every three hundred ft² of crawlspace floor area. The crawlspace is not actively heated.

Floors over unheated areas, such as garages, may only use those values which have R-0 perimeter insulation.

Unvented crawlspaces: Assumed to have 1.5 air changes per hour, with less than one ft² of net-free ventilation in the foundation for every three hundred ft² of crawlspace floor area. The crawlspace is not actively heated. Floors over unheated basements may only use those values which have R-0 perimeter insulation.

Heated-plenum crawlspaces: Assumed to have 0.25 air-changes per hour, with no foundation vents. Heated supply air from central furnace is blown into a crawlspace and allowed to enter the living space unducted via holes cut into the floor.

Enclosed floors: Assumes no buffer space, and a covering of one-half inch of T1-11 on the exterior of the cavity exposed to the outside air.

1004.3 Construction Description: Floors are assumed to be either joisted floors framed on sixteen inch centers, or post and beam on four by eight foot squares. Insulation is assumed to be installed under the subflooring between the joists or beams with no space between the insulation and the subfloor. Insulation is assumed to be uncompressed.

Perimeter insulation is assumed to extend from the top of the rim joist to the crawlspace floor and then inward along the ground (on top of the ground cover) for at least twenty-four inches.

Floor coverings are assumed to be light carpet with rubber pad.

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TABLE 10-3
~~DEFAULT U-VALUES FOR FLOORS OVER VENTED CRAWLSPACE OR UNHEATED BASEMENT~~

Nominal R-value		U-value	
Floor	Perimeter	Post & Beam	Joists
0	0	0.112	0.134
	11	0.100	0.116
	19	0.098	0.114
	30	0.093	0.107
11	0	0.052	0.056
	11	0.048	0.052
19	0	0.038	0.041
	11	0.036	0.038
22	0	0.034	0.037
	11	0.033	0.035
25	0	0.032	0.034
	11	0.031	0.033
30	0	0.028	0.029
	11	0.027	0.028
38	0	0.024	0.025
	11	0.024	0.024

TABLE 10-4
~~DEFAULT U-VALUES FOR FLOORS OVER HEATED PLENUM CRAWLSPACES~~

Nominal R-value	U-value
11	0.085
19	0.075
30	0.069

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TABLE 10-3
DEFAULT U-FACTORS FOR FLOORS OVER VENTED CRAWLSPACE OR UNHEATED BASEMENT

Nominal R-value		U-factor	
Floor	Perimeter	Post & Beam	Joists
0	0	0.112	0.134
	11	0.100	0.116
	19	0.098	0.114
	30	0.093	0.107
11	0	0.052	0.056
	11	0.048	0.052
19	0	0.038	0.041
	11	0.036	0.038
22	0	0.034	0.037
	11	0.033	0.035
25	0	0.032	0.034
	11	0.031	0.033
30	0	0.028	0.029
	11	0.027	0.028
38	0	0.024	0.025
	11	0.024	0.024

TABLE 10-4
DEFAULT U-FACTORS FOR FLOORS OVER HEATED PLENUM CRAWLSPACES

Nominal R-value	U-factor
Perimeter	
11	0.085
19	0.075
30	0.069

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**TABLE 10-4A
EXPOSED FLOOR**

Nominal R-value	U-factor		
	Concrete	Wood Joist	Metal Joist
R-11	0.077	0.088	0.14
R-15	0.059	0.076	0.12
R-19	0.048	0.062	0.11
R-21	0.043	0.057	0.11
R-25	0.037	0.051	0.10
R-30	0.031	0.040	0.09
R-38	0.025	0.034	0.08

Note: Crawlspace used as heated plenums have approximately 30% higher heat loss rate than unvented crawlspaces with the same assumed ACH. Default U-factors in Table 10-4 reflect this higher rate of heat loss.

AMENDATORY SECTION (Amending WSR 91-01-112, filed 12/19/90, effective 7/1/91)

WAC 51-11-1005 Section 1005: Above-grade walls.

Section 1005.1 General: Table 10-5 lists heat-loss coefficients for the opaque portion of above-grade walls (Btu/°F•hr per square foot). They are derived from procedures listed in RS-1, listed in Chapter 7, assuming exterior air films at 7.5-mph wind speed.

Insulation is assumed to uniformly fill the entire cavity and to be installed as per manufacturer's directions. All walls are assumed to be finished on the inside with one-half inch gypsum wallboard, and on the outside with either beveled wood siding over one-half inch plywood sheathing or with five-eighths inch T1-11 siding. Insulated sheathing (either interior or exterior) is assumed to cover the entire opaque wall surface.

1005.2 Framing Description: Three framing types are considered, and defined as follows:

Standard: Studs framed on sixteen inch centers with double top plate and single bottom plate. Corners use three studs and each opening is framed using two studs. Headers consist of double 2X or single 4X material with an air space left between the header and the exterior sheathing. Interior partition wall/exterior wall intersections use two studs in the exterior wall.

Framing weighting factors:	Studs and plates	.19
	Insulated cavity	.77
	Headers	.04

Intermediate: Studs framed on sixteen inch centers with double top plate and single bottom plate. Corners use two studs or other means of fully insulating corners, and each opening is framed by two studs. Headers consist of double 2X material with R-10 insulation between the header and exterior sheathing. Interior partition wall/exterior wall intersections are fully insulated in the exterior wall.

Framing weighting factors:	Studs and plates	.18
	Insulated cavity	.78
	Headers	.04

Advanced: Studs framed on twenty-four inch centers with double top plate and single bottom plate. Corners use two studs or other means of fully insulating corners, and one stud is used to support each header. Headers consist of double 2X material with R-10 insulation between the header and exterior sheathing. Interior partition wall/exterior wall intersections are fully insulated in the exterior wall.

Framing weighting factors:	Studs and plates	.13
	Insulated cavity	.83
	Headers	.04

1005.3 Component Description: Default coefficients for ~~(three)~~ four types of walls are listed: single-stud walls, metal stud walls, strap walls, and double-stud walls.

Single-Stud Wall: Assumes either 2x4 or 2x6 studs framed on sixteen or twenty-four inch centers. Headers are solid for 2x4 walls and double 2x for 2x6 walls, with either dead-air or rigid-board insulation in the remaining space.

Metal Stud Wall: Assumes metal studs spaced on 16 or 24 inch centers with insulation installed to fill wall cavities. Continuous rigid board insulation is applied without creating uninsulated voids in the wall assembly.

Strap Wall: Assumes 2x6 studs framed on sixteen or twenty-four inch centers. 2x3 or 2x4 strapping is run horizontally along the interior surface of the wall to provide additional space for insulation.

Double-Stud Wall: Assumes an exterior structural wall and a separate interior, non-structural wall. Insulation is placed in both wall cavities and in the space between the two walls. Stud spacing is assumed to be on twenty-four inch centers for both walls.

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TABLE 10-5
DEFAULT U-VALUES FOR ABOVE-GRADE WALLS

~~2 x 4 Single Wood Stud: R-11 Batt~~

NOTE:

Nominal Batt R-value:
R-11 at 3.5 inch thickness

Installed Batt R-value:
R-11 in 3.5 inch cavity

Siding Material/Framing Type				
R-value of Foil Board	Lapped Wood		T1-11	
	STD	ADV	STD	ADV
0	0.088	0.084	0.094	0.090
1	0.080	0.077	0.085	0.082
2	0.074	0.071	0.078	0.075
3	0.069	0.066	0.072	0.070
4	0.064	0.062	0.067	0.065
5	0.060	0.058	0.063	0.061
6	0.056	0.055	0.059	0.057
7	0.053	0.052	0.055	0.054
8	0.051	0.049	0.052	0.051
9	0.048	0.047	0.050	0.049
10	0.046	0.045	0.047	0.046
11	0.044	0.043	0.045	0.044
12	0.042	0.041	0.043	0.042

~~2 x 4 Single Wood Stud: R-13 Batt~~

NOTE:

Nominal Batt R-value:
R-13 at 3.63 inch thickness

Installed Batt R-value:
R-12.7 in 3.5 inch cavity

Siding Material/Framing Type				
R-value of Foil Board	Lapped Wood		T1-11	
	STD	ADV	STD	ADV
0	0.082	0.078	0.088	0.083
1	0.075	0.072	0.080	0.076
2	0.069	0.066	0.073	0.070
3	0.065	0.062	0.068	0.065
4	0.060	0.058	0.063	0.061
5	0.057	0.055	0.059	0.057
6	0.053	0.052	0.056	0.054
7	0.051	0.049	0.052	0.051
8	0.048	0.047	0.050	0.048
9	0.046	0.045	0.047	0.046
10	0.044	0.043	0.045	0.044
11	0.042	0.041	0.043	0.042
12	0.040	0.039	0.041	0.040

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~~2 x 4 Single Wood Stud: R-15 Batt~~

NOTE:

Nominal Batt R-value:
R-15 at 3.5 inch thickness

Installed Batt R-value:
R-15 in 3.5 inch cavity

Siding Material/Framing Type				
R-value of Foam Board	Lapped Wood		T1-11	
	STD	ADV	STD	ADV
0	0.076	0.071	0.081	0.075
1	0.069	0.065	0.073	0.069
2	0.064	0.061	0.068	0.069
3	0.060	0.057	0.063	0.059
4	0.056	0.053	0.059	0.056
5	0.053	0.051	0.055	0.052
6	0.050	0.048	0.052	0.050
7	0.047	0.046	0.049	0.047
8	0.045	0.044	0.047	0.045
9	0.043	0.042	0.044	0.043
10	0.041	0.040	0.042	0.041
11	0.039	0.038	0.041	0.039
12	0.038	0.037	0.039	0.038

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~~2 x 6 Single Wood Stud: R-19 Batt~~

NOTE:

Nominal Batt R-value:
R-19 at 6 inch thickness

Installed Batt R-value:
R-18 in 5.5 inch cavity

Siding Material/Framing Type						
R-value of Foam Board	Lapped Wood			T1-11		
	STD	INT	ADV	STD	INT	ADV
0	0.062	0.058	0.055	0.065	0.061	0.058
1	0.058	0.055	0.052	0.060	0.057	0.055
2	0.054	0.052	0.050	0.056	0.054	0.051
3	0.051	0.049	0.047	0.053	0.051	0.049
4	0.048	0.046	0.045	0.050	0.048	0.046
5	0.046	0.044	0.043	0.048	0.046	0.044
6	0.044	0.042	0.041	0.045	0.044	0.042
7	0.042	0.040	0.039	0.043	0.042	0.040
8	0.040	0.039	0.038	0.041	0.040	0.039
9	0.038	0.037	0.035	0.039	0.038	0.037
10	0.037	0.036	0.035	0.038	0.037	0.036
11	0.036	0.035	0.034	0.036	0.035	0.035
12	0.034	0.033	0.033	0.035	0.034	0.033

6 Single Wood Stud: R-21 Batt

NOTE:

Nominal Batt R-value:
R-21 at 5.5 inch thickness

Installed Batt R-value:
R-21 in 5.5 inch cavity

Siding Material/Framing Type						
R-value of Foam Board	Lapped Wood			T1-11		
	STD	INT	ADV	STD	INT	ADV
0	0.057	0.054	0.051	0.060	0.056	0.053
1	0.054	0.051	0.048	0.056	0.053	0.050
2	0.050	0.048	0.045	0.052	0.050	0.047
3	0.048	0.045	0.043	0.049	0.047	0.045
4	0.045	0.043	0.041	0.047	0.045	0.043
5	0.043	0.041	0.040	0.044	0.042	0.041
6	0.041	0.039	0.038	0.042	0.041	0.039
7	0.039	0.038	0.036	0.040	0.039	0.037
8	0.038	0.036	0.035	0.039	0.037	0.036
9	0.036	0.035	0.034	0.037	0.036	0.035
10	0.035	0.034	0.033	0.036	0.035	0.033
11	0.033	0.033	0.032	0.034	0.033	0.032
12	0.032	0.031	0.031	0.033	0.032	0.031

6 Single Wood Stud: R-22 Batt

NOTE:

Nominal Batt R-value:
R-22 at 6.75 inch thickness

Installed Batt R-value:
R-20 in 5.5 inch cavity

Siding Material/Framing Type						
R-value of Foam Board	Lapped Wood			T1-11		
	STD	INT	ADV	STD	INT	ADV
0	0.059	0.055	0.052	0.062	0.058	0.054
1	0.055	0.052	0.049	0.057	0.054	0.051
2	0.052	0.049	0.047	0.054	0.051	0.048
3	0.049	0.046	0.044	0.050	0.048	0.046
4	0.046	0.044	0.042	0.048	0.046	0.044
5	0.044	0.042	0.041	0.045	0.043	0.042
6	0.042	0.040	0.039	0.043	0.042	0.040
7	0.040	0.039	0.037	0.041	0.040	0.038
8	0.038	0.037	0.036	0.039	0.038	0.037
9	0.037	0.036	0.035	0.038	0.037	0.035
10	0.035	0.034	0.033	0.036	0.035	0.034
11	0.034	0.033	0.032	0.035	0.034	0.033
12	0.033	0.032	0.031	0.034	0.033	0.032

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~~x 6 Single Wood Stud: Two R-11 Batts~~

~~OTE:~~

~~nominal Batt R-value:~~

~~22 at 7 inch thickness~~

~~Installed Batt R-value:~~

~~18.9 in 5.5 inch cavity~~

Siding Material/Framing Type						
R-value of Foam Board	Lapped Wood			T1-11		
	STD	INT	ADV	STD	INT	ADV
0	0.060	0.057	0.054	0.063	0.059	0.056
1	0.056	0.053	0.051	0.059	0.056	0.053
2	0.053	0.050	0.048	0.055	0.052	0.050
3	0.050	0.048	0.046	0.052	0.049	0.047
4	0.047	0.045	0.044	0.049	0.047	0.045
5	0.045	0.043	0.042	0.046	0.045	0.043
6	0.043	0.041	0.040	0.044	0.043	0.041
7	0.041	0.040	0.038	0.042	0.041	0.039
8	0.039	0.038	0.037	0.040	0.039	0.038
9	0.038	0.037	0.036	0.039	0.038	0.036
10	0.036	0.035	0.034	0.037	0.036	0.035
11	0.035	0.034	0.033	0.036	0.035	0.034
12	0.034	0.033	0.032	0.034	0.034	0.033

~~x 8 Single Stud: R-25 Batt~~

~~OTE:~~

~~nominal Batt R-value:~~

~~25 at 8 inch thickness~~

~~Installed Batt R-value:~~

~~23.6 in 7.25 inch cavity~~

Siding Material/Framing Type						
R-value of Foam Board	Lapped Wood			T1-11		
	STD	INT	ADV	STD	INT	ADV
0	0.051	0.047	0.045	0.053	0.049	0.046
1	0.048	0.045	0.043	0.049	0.046	0.044
2	0.045	0.043	0.041	0.047	0.044	0.042
3	0.043	0.041	0.039	0.044	0.042	0.040
4	0.041	0.039	0.037	0.042	0.040	0.038
5	0.039	0.037	0.036	0.040	0.038	0.037
6	0.037	0.036	0.035	0.038	0.037	0.036
7	0.036	0.035	0.033	0.037	0.035	0.034
8	0.035	0.033	0.032	0.035	0.034	0.033
9	0.033	0.032	0.031	0.034	0.033	0.032
10	0.032	0.031	0.030	0.033	0.032	0.031
11	0.031	0.030	0.029	0.032	0.031	0.030
12	0.030	0.029	0.028	0.031	0.030	0.029

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~~2 x 6 - Strap Wall~~

	Siding Material/Frame Type			
	Lapped Wood		TI-II	
	STD	ADV	STD	ADV
R-19 + R-11 Batts	0.036	0.035	0.038	0.036
R-19 + R-8 Batts	0.041	0.039	0.042	0.040

~~2 x 6 + 2 x 4 - Double Wood Stud~~

Batt Configuration			Siding Material/Frame Type			
			Lapped Wood		TI-II	
			Exterior	Middle	Interior	STD
R-19	-	R-11	0.040	0.037	0.041	0.038
R-19	-	R-19	0.034	0.031	0.035	0.032
R-19	R-8	R-11	0.029	0.028	0.031	0.029
R-19	R-11	R-11	0.027	0.026	0.028	0.027
R-19	R-11	R-19	0.024	0.023	0.025	0.023
R-19	R-19	R-19	0.021	0.020	0.021	0.020

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~~2 x 4 + 2 x 4 - Double Wood Stud~~

Batt Configuration			Siding Material/Frame Type			
			Lapped Wood		TI-II	
			Exterior	Middle	Interior	STD
R-11	-	R-11	0.050	0.046	0.052	0.048
R-19	-	R-11	0.039	0.037	0.043	0.039
R-11	R-8	R-11	0.037	0.035	0.036	0.036
R-11	R-11	R-11	0.032	0.031	0.033	0.032
R-13	R-13	R-13	0.029	0.028	0.029	0.028
R-11	R-19	R-11	0.026	0.026	0.027	0.026

Log Walls

NOTE:

R-value of wood:
R-1.25 per inch thickness

Average wall thickness
90% average log diameter

Average Log Diameter, Inches	U-value
6	0.148
8	0.111
10	0.089
12	0.074
14	0.063
16	0.056

Stress-Skin Panel

NOTE:

R-value of expanded polystyrene: R-3.85 per inch

Framing: 6%
Spline: 8%

No thermal bridging between interior and exterior splines

Panel Thickness, Inches	U-value
3-1/2	0.071
5-1/2	0.048
7-1/4	0.037
9-1/4	0.030
11-1/4	0.025

Single Metal Stud

Nominal Wall Thickness, Inches	Nominal Insulation R-Value	Effective Insulation R-Value	Overall Assembly U-Value	
			16" O.C.	24" O.C.
4	R-11	R-11	0.14	0.13
4	R-13	R-12.7	0.13	0.12
6	R-19	R-18	0.11	0.10

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**TABLE 10-5
DEFAULT U-FACTORS FOR ABOVE-GRADE WALLS**

2 x 4 Single Wood Stud: R-11 Batt

NOTE:

Nominal Batt R-value:
R-11 at 3.5 inch thickness

Installed Batt R-value:
R-11 in 3.5 inch cavity

Siding Material/Framing Type				
R-value of Foam Board	Lapped Wood		T1-11	
	STD	ADV	STD	ADV
0	0.088	0.084	0.094	0.090
1	0.080	0.077	0.085	0.082
2	0.074	0.071	0.078	0.075
3	0.069	0.066	0.072	0.070
4	0.064	0.062	0.067	0.065
5	0.060	0.058	0.063	0.061
6	0.056	0.055	0.059	0.057
7	0.053	0.052	0.055	0.054
8	0.051	0.049	0.052	0.051
9	0.048	0.047	0.050	0.049
10	0.046	0.045	0.047	0.046
11	0.044	0.043	0.045	0.044
12	0.042	0.041	0.043	0.042

2 x 4 Single Wood Stud: R-13 Batt

NOTE:

Nominal Batt R-value:
R-13 at 3.63 inch thickness

Installed Batt R-value:
R-12.7 in 3.5 inch cavity

Siding Material/Framing Type				
R-value of Foam Board	Lapped Wood		T1-11	
	STD	ADV	STD	ADV
0	0.082	0.078	0.088	0.083
1	0.075	0.072	0.080	0.076
2	0.069	0.066	0.073	0.070
3	0.065	0.062	0.068	0.065
4	0.060	0.058	0.063	0.061
5	0.057	0.055	0.059	0.057
6	0.053	0.052	0.056	0.054
7	0.051	0.049	0.052	0.051
8	0.048	0.047	0.050	0.048
9	0.046	0.045	0.047	0.046
10	0.044	0.043	0.045	0.044
11	0.042	0.041	0.043	0.042
12	0.040	0.039	0.041	0.040

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2 x 4 Single Wood Stud: R-15 Batt

NOTE:

Nominal Batt R-value:
R-15 at 3.5 inch thickness

Installed Batt R-value:
R-15 in 3.5 inch cavity

Siding Material/Framing Type				
R-value of Foam Board	Lapped Wood		T1-11	
	STD	ADV	STD	ADV
0	0.076	0.071	0.081	0.075
1	0.069	0.065	0.073	0.069
2	0.064	0.061	0.068	0.069
3	0.060	0.057	0.063	0.059
4	0.056	0.053	0.059	0.056
5	0.053	0.051	0.055	0.052
6	0.050	0.048	0.052	0.050
7	0.047	0.046	0.049	0.047
8	0.045	0.044	0.047	0.045
9	0.043	0.042	0.044	0.043
10	0.041	0.040	0.042	0.041
11	0.039	0.038	0.041	0.039
12	0.038	0.037	0.039	0.038

2 x 6 Single Wood Stud: R-19 Batt

NOTE:

Nominal Batt R-value:
R-19 at 6 inch thickness

Installed Batt R-value:
R-18 in 5.5 inch cavity

Siding Material/Framing Type						
R-value of Foam Board	Lapped Wood			T1-11		
	STD	INT	ADV	STD	INT	ADV
0	0.062	0.058	0.055	0.065	0.061	0.058
1	0.058	0.055	0.052	0.060	0.057	0.055
2	0.054	0.052	0.050	0.056	0.054	0.051
3	0.051	0.049	0.047	0.053	0.051	0.049
4	0.048	0.046	0.045	0.050	0.048	0.046
5	0.046	0.044	0.043	0.048	0.046	0.044
6	0.044	0.042	0.041	0.045	0.044	0.042
7	0.042	0.040	0.039	0.043	0.042	0.040
8	0.040	0.039	0.038	0.041	0.040	0.039
9	0.038	0.037	0.035	0.039	0.038	0.037
10	0.037	0.036	0.035	0.038	0.037	0.036
11	0.036	0.035	0.034	0.036	0.035	0.035
12	0.034	0.033	0.033	0.035	0.034	0.033

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2 x 6 Single Wood Stud: R-21 Batt

NOTE:

Nominal Batt R-value:
R-21 at 5.5 inch thickness

Installed Batt R-value:
R-21 in 5.5 inch cavity

Siding Material/Framing Type						
R-value of Foam Board	Lapped Wood			T1-11		
	STD	INT	ADV	STD	INT	ADV
0	0.057	0.054	0.051	0.060	0.056	0.053
1	0.054	0.051	0.048	0.056	0.053	0.050
2	0.050	0.048	0.045	0.052	0.050	0.047
3	0.048	0.045	0.043	0.049	0.047	0.045
4	0.045	0.043	0.041	0.047	0.045	0.043
5	0.043	0.041	0.040	0.044	0.042	0.041
6	0.041	0.039	0.038	0.042	0.041	0.039
7	0.039	0.038	0.036	0.040	0.039	0.037
8	0.038	0.036	0.035	0.039	0.037	0.036
9	0.036	0.035	0.034	0.037	0.036	0.035
10	0.035	0.034	0.033	0.036	0.035	0.033
11	0.033	0.033	0.032	0.034	0.033	0.032
12	0.032	0.031	0.031	0.033	0.032	0.031

2 x 6 Single Wood Stud: R-22 Batt

NOTE:

Nominal Batt R-value:
R-22 at 6.75 inch thickness

Installed Batt R-value:
R-20 in 5.5 inch cavity

Siding Material/Framing Type						
R-value of Foam Board	Lapped Wood			T1-11		
	STD	INT	ADV	STD	INT	ADV
0	0.059	0.055	0.052	0.062	0.058	0.054
1	0.055	0.052	0.049	0.057	0.054	0.051
2	0.052	0.049	0.047	0.054	0.051	0.048
3	0.049	0.046	0.044	0.050	0.048	0.046
4	0.046	0.044	0.042	0.048	0.046	0.044
5	0.044	0.042	0.041	0.045	0.043	0.042
6	0.042	0.040	0.039	0.043	0.042	0.040
7	0.040	0.039	0.037	0.041	0.040	0.038
8	0.038	0.037	0.036	0.039	0.038	0.037
9	0.037	0.036	0.035	0.038	0.037	0.035
10	0.035	0.034	0.033	0.036	0.035	0.034
11	0.034	0.033	0.032	0.035	0.034	0.033
12	0.033	0.032	0.031	0.034	0.033	0.032

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2 x 6 Single Wood Stud: Two R-11 Batts

NOTE:

Nominal Batt R-value:
R-22 at 7 inch thickness

Installed Batt R-value:
R-18.9 in 5.5 inch cavity

Siding Material/Framing Type						
R-value of Foam Board	Lapped Wood			TI-11		
	STD	INT	ADV	STD	INT	ADV
0	0.060	0.057	0.054	0.063	0.059	0.056
1	0.056	0.053	0.051	0.059	0.056	0.053
2	0.053	0.050	0.048	0.055	0.052	0.050
3	0.050	0.048	0.046	0.052	0.049	0.047
4	0.047	0.045	0.044	0.049	0.047	0.045
5	0.045	0.043	0.042	0.046	0.045	0.043
6	0.043	0.041	0.040	0.044	0.043	0.041
7	0.041	0.040	0.038	0.042	0.041	0.039
8	0.039	0.038	0.037	0.040	0.039	0.038
9	0.038	0.037	0.036	0.039	0.038	0.036
10	0.036	0.035	0.034	0.037	0.036	0.035
11	0.035	0.034	0.033	0.036	0.035	0.034
12	0.034	0.033	0.032	0.034	0.034	0.033

2 x 8 Single Stud: R-25 Batt

NOTE:

Nominal Batt R-value:
R-25 at 8 inch thickness

Installed Batt R-value:
R-23.6 in 7.25 inch cavity

Siding Material/Framing Type						
R-value of Foam Board	Lapped Wood			TI-11		
	STD	INT	ADV	STD	INT	ADV
0	0.051	0.047	0.045	0.053	0.049	0.046
1	0.048	0.045	0.043	0.049	0.046	0.044
2	0.045	0.043	0.041	0.047	0.044	0.042
3	0.043	0.041	0.039	0.044	0.042	0.040
4	0.041	0.039	0.037	0.042	0.040	0.038
5	0.039	0.037	0.036	0.040	0.038	0.037
6	0.037	0.036	0.035	0.038	0.037	0.036
7	0.036	0.035	0.033	0.037	0.035	0.034
8	0.035	0.033	0.032	0.035	0.034	0.033
9	0.033	0.032	0.031	0.034	0.033	0.032
10	0.032	0.031	0.030	0.033	0.032	0.031
11	0.031	0.030	0.029	0.032	0.031	0.030
12	0.030	0.029	0.028	0.031	0.030	0.029

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2 x 6: Strap Wall

	Siding Material/Frame Type			
	Lapped Wood		T1-11	
	STD	ADV	STD	ADV
R-19 + R-11 Batts	0.036	0.035	0.038	0.036
R-19 + R-8 Batts	0.041	0.039	0.042	0.040

2 x 6 + 2 x 4: Double Wood Stud

Batt Configuration			Siding Material/Frame Type			
			Lapped Wood		T1-11	
			Exterior	Middle	Interior	STD
R-19	--	R-11	0.040	0.037	0.041	0.038
R-19	--	R-19	0.034	0.031	0.035	0.032
R-19	R-8	R-11	0.029	0.028	0.031	0.029
R-19	R-11	R-11	0.027	0.026	0.028	0.027
R-19	R-11	R-19	0.024	0.023	0.025	0.023
R-19	R-19	R-19	0.021	0.020	0.021	0.020

2 x 4 + 2 x 4: Double Wood Stud

Batt Configuration			Siding Material/Frame Type			
			Lapped Wood		T1-11	
			Exterior	Middle	Interior	STD
R-11	--	R-11	0.050	0.046	0.052	0.048
R-19	--	R-11	0.039	0.037	0.043	0.039
R-11	R-8	R-11	0.037	0.035	0.036	0.036
R-11	R-11	R-11	0.032	0.031	0.033	0.032
R-13	R-13	R-13	0.029	0.028	0.029	0.028
R-11	R-19	R-11	0.026	0.026	0.027	0.026

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Log Walls

NOTE:
 R-value of wood:
 R-1.25 per inch thickness

 Average wall thickness
 90% average log diameter

Average Log Diameter, Inches	U-factor
6	0.148
8	0.111
10	0.089
12	0.074
14	0.063
16	0.056

Stress Skin Panel

NOTE:
 R-value of expanded polystyrene: R-3.85 per inch

 Framing: 6%
 Spline: 8%

Panel Thickness, Inches	U-factor
3 1/2	0.071
5 1/2	0.048
7 1/4	0.037
9 1/4	0.030
11 1/4	0.025

No thermal bridging between interior and exterior splines

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TABLE 10-5A
Overall Assembly U-Factors for Metal Stud Walls

Metal Framing	R-Value of Continuous Foam Board Insulation	Cavity Insulation					
		R-11	R-13	R-15	R-19	R-21	R-25
16" o.c.	R-0 (none)	U-0.14	U-0.13	U-0.12	U-0.10	U-0.097	U-0.091
	R-1	U-0.12	U-0.12	U-0.11	U-0.094	U-0.089	U-0.083
	R-2	U-0.11	U-0.010	U-0.099	U-0.086	U-0.081	U-0.077
	R-3	U-0.10	U-0.095	U-0.090	U-0.079	U-0.075	U-0.071
	R-4	U-0.091	U-0.087	U-0.082	U-0.073	U-0.070	U-0.067
	R-5	U-0.083	U-0.080	U-0.076	U-0.068	U-0.065	U-0.062
	R-6	U-0.077	U-0.074	U-0.071	U-0.064	U-0.061	U-0.059
	R-7	U-0.071	U-0.069	U-0.066	U-0.060	U-0.058	U-0.055
	R-8	U-0.067	U-0.064	U-0.062	U-0.057	U-0.055	U-0.053
	R-9	U-0.062	U-0.060	U-0.058	U-0.054	U-0.052	U-0.050
R-10	U-0.059	U-0.057	U-0.055	U-0.051	U-0.049	U-0.048	

24" o.c.	R-0 (none)	U-0.13	U-0.12	U-0.11	U-0.091	U-0.085	U-0.079
	R-1	U-0.11	U-0.10	U-0.098	U-0.084	U-0.078	U-0.073
	R-2	U-0.10	U-0.091	U-0.089	U-0.077	U-0.073	U-0.068
	R-3	U-0.092	U-0.083	U-0.082	U-0.072	U-0.068	U-0.064
	R-4	U-0.084	U-0.077	U-0.076	U-0.067	U-0.063	U-0.060
	R-5	U-0.078	U-0.071	U-0.070	U-0.063	U-0.060	U-0.057
	R-6	U-0.072	U-0.067	U-0.066	U-0.059	U-0.056	U-0.054
	R-7	U-0.067	U-0.063	U-0.062	U-0.056	U-0.053	U-0.051
	R-8	U-0.063	U-0.059	U-0.058	U-0.053	U-0.051	U-0.048
	R-9	U-0.059	U-0.056	U-0.055	U-0.050	U-0.048	U-0.046
	R-10	U-0.056	U-0.053	U-0.052	U-0.048	U-0.046	U-0.044

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Reviser's note: RCW 34.05.395 requires the use of underlining and deletion marks to indicate amendments to existing rules. The rule published above varies from its predecessor in certain respects not indicated by the use of these markings.

AMENDATORY SECTION (Amending WSR 94-05-059, filed 2/10/94, effective 4/1/94)

WAC 51-11-1006 Section 1006 Default ((U-values)) U-factors for glazing and doors.

1006.1 Untested Glazing and Doors: Untested glazing and doors shall be assigned the ((U-values)) U-factors from Tables 10-6A, 10-6B, 10-6C ((~~or~~)), 10-6D, or 10-6E as appropriate.

TABLE 10-6A
Window Default Table

Description ^{1,2,3,4}		Frame Type ^{5,6}		
		Aluminum	Aluminum Thermal Break ⁷	Wood/Vinyl
Single		—1.20	—1.20	—1.20
Double, < 1/2"	Clear	—0.92	—0.75	—0.63
	Clear + Argon	—0.87	—0.71	—0.60
	Low-e	—0.85	—0.69	—0.58
	Low-e + Argon	—0.79	—0.62	—0.53
Double, ≥ 1/2"	Clear	—0.86	—0.69	—0.58
	Clear + Argon	—0.83	—0.67	—0.55
	Low-e	—0.78	—0.61	—0.51
	Low-e + Argon	—0.75	—0.58	—0.48
Triple,	Clear	—0.70	—0.53	—0.43
	Clear + Argon	—0.69	—0.52	—0.41
	Low-e	—0.67	—0.49	—0.40
	Low-e + Argon	—0.63	—0.47	—0.37

1 — < 1/2" — a minimum dead air space of less than 0.5 inches between the panes of glass.
 — ≥ 1/2" — a minimum dead air space of 0.5 inches or greater between the panes of glass.

2 — Any low e (emissivity) coating (0.1, 0.2 or 0.4).

3 — U values listed for argon shall consist of sealed, gas filled insulated units for argon, CO₂, SF₆, argon/SF₆ mixtures and Krypton.

4 — "Glass block" assemblies may use a U value of 0.51.

5 — Insulated fiberglass framed products shall use wood/vinyl U values.

6 — Aluminum clad wood windows shall use the U values listed for wood/vinyl windows.

7 — Aluminum Thermal Break — An aluminum thermal break framed window shall incorporate the following minimum design characteristics:

- a) — The thermal conductivity of the thermal break material shall be not more than 3.6 Btu-in/h/ft²/°F;
- b) — The thermal break material must produce a gap in the frame material of not less than 0.210 inches; and,
- c) — All metal framing members of the products exposed to interior and exterior air shall incorporate a thermal break meeting the criteria in a) and b) above.

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**TABLE 10-6A
DEFAULT U-FACTORS FOR VERTICAL GLAZING**

Description ^{1,2,3,4}		Frame Type ^{5,6}			
		Aluminum	Aluminum Thermal Break ⁷	Wood/Vinyl	
Windows	Single	1.20	1.20	1.20	
	Double, < 1/2"	Clear	0.92	0.75	0.63
		Clear + Argon	0.87	0.71	0.60
		Low-e	0.85	0.69	0.58
		Low-e + Argon	0.79	0.62	0.53
	Double, ≥ 1/2"	Clear	0.86	0.69	0.58
		Clear + Argon	0.83	0.67	0.55
		Low-e	0.78	0.61	0.51
		Low-e + Argon	0.75	0.58	0.48
	Triple,	Clear	0.70	0.53	0.43
		Clear + Argon	0.69	0.52	0.41
		Low-e	0.67	0.49	0.40
		Low-e + Argon	0.63	0.47	0.37
Garden Windows	Single	2.60	n.a.	2.31	
	Double	Clear	1.81	n.a.	1.61
		Clear + Argon	1.76	n.a.	1.56
		Low-e	1.73	n.a.	1.54
		Low-e + Argon	1.64	n.a.	1.47

- 1 < 1/2" = a minimum dead air space of less than 0.5 inches between the panes of glass.
 ≥ 1/2" = a minimum dead air space of 0.5 inches or greater between the panes of glass.
 Where no gap width is listed, the minimum gap width is 1/4".
- 2 Any low-e (emissivity) coating (0.1, 0.2 or 0.4).
- 3 U-factors listed for argon shall consist of sealed, gas-filled insulated units for argon, CO2, SF6, argon/SF6 mixtures and Krypton.
- 4 "Glass block" assemblies may use a U-factor of 0.51.
- 5 Insulated fiberglass framed products shall use wood/vinyl U-factors.
- 6 Aluminum clad wood windows shall use the U-factors listed for wood/vinyl windows.
- 7 Aluminum Thermal Break = An aluminum thermal break framed window shall incorporate the following minimum design characteristics:
 - a) The thermal conductivity of the thermal break material shall be not more than 3.6 Btu-in/h/ft²/°F;
 - b) The thermal break material must produce a gap in the frame material of not less than 0.210 inches; and,
 - c) All metal framing members of the products exposed to interior and exterior air shall incorporate a thermal break meeting the criteria in a) and b) above.

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TABLE 10-6B¹
APPROVED WINDOW AND SKYLIGHT DEFAULT TABLE¹

DESCRIPTION ^{2,3,4,5,6}	FRAME TYPE ^{7,8}			
	ALUMINUM	ALUM. THERMAL BREAK ⁹	WOOD/VINYL	ALUM. CLAD WOOD/REINFORCED VINYL ¹⁰
Double, Clear 1/4"	0.82	0.66	0.56	0.59
Double, Clear 1/4" + argon	0.77	0.63	0.53	0.56
Double, Low-e4 1/4"	0.76	0.61	0.52	0.54
Double, Low-e2 1/4"	0.73	0.58	0.49	0.51
Double, Low-e1 1/4"	0.70	0.55	0.47	0.49
Double, Low-e4 1/4" + argon	0.70	0.55	0.47	0.49
Double, Low-e2 1/4" + argon	0.66	0.52	0.43	0.46
Double, Low-e1 1/4" + argon	0.64	0.50	0.41	0.43
Double, Clear 3/8"	0.78	0.63	0.54	0.57
Double, Clear 3/8" + argon	0.75	0.60	0.51	0.54
Double, Low-e4 3/8"	0.72	0.57	0.48	0.51
Double, Low-e2 3/8"	0.69	0.54	0.45	0.48
Double, Low-e1 3/8"	0.66	0.51	0.43	0.46
Double, Low-e4 3/8" + argon	0.68	0.53	0.44	0.47
Double, Low-e2 3/8" + argon	0.63	0.49	0.41	0.44
Double, Low-e1 3/8" + argon	0.61	0.47	0.39	0.41
Double, Clear 1/2"	0.75	0.60	0.50	0.54
Double, Clear 1/2" + argon	0.72	0.58	0.48	0.51
Double, Low-e4 1/2"	0.68	0.53	0.44	0.47
Double, Low-e2 1/2"	0.64	0.50	0.41	0.44
Double, Low-e1 1/2"	0.61	0.47	0.39	0.42
Double, Low-e4 1/2" + argon	0.65	0.50	0.42	0.44
Double, Low-e2 1/2" + argon	0.60	0.46	0.37	0.40
Double, Low-e1 1/2" + argon	0.58	0.43	0.35	0.38
Triple, Clear 1/4"	0.66	0.52	0.42	0.44
Triple, Clear 1/4" + argon	0.63	0.49	0.39	0.42
Triple, Low-e4 1/4"	0.64	0.50	0.40	0.40
Triple, Low-e2 1/4"	0.62	0.48	0.39	0.41
Triple, Low-e1 1/4"	0.61	0.47	0.38	0.40
Triple, Low-e4 1/4" + argon	0.60	0.46	0.37	0.39
Triple, Low-e2 1/4" + argon	0.58	0.43	0.34	0.37
Triple, Low-e1 1/4" + argon	0.57	0.42	0.34	0.36
Triple, Clear 1/2"	0.61	0.46	0.37	0.40
Triple, Clear 1/2" + argon	0.59	0.45	0.36	0.38
Triple, Low-e4 1/2"	0.58	0.43	0.35	0.37
Triple, Low-e2 1/2"	0.55	0.41	0.32	0.35
Triple, Low-e1 1/2"	0.54	0.39	0.31	0.33
Triple, Low-e4 1/2" + argon	0.55	0.41	0.32	0.35
Triple, Low-e2 1/2" + argon	0.52	0.38	0.30	0.32
Triple, Low-e1 1/2" + argon	0.51	0.37	0.29	0.31

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Footnotes to Table 10-6B

- ~~1 Subtract 0.02 from the listed default U value for non-aluminum spacer. Acceptable spacer materials may include but is not limited to fiberglass, wood and butyl or other material with an equivalent thermal performance.~~
- ~~2 1/4" = a minimum dead air space of 0.25 inches between the panes of glass.
3/8" = a minimum dead air space of 0.375 inches between the panes of glass.
1/2" = a minimum dead air space of 0.5 inches between the panes of glass.
Product with air spaces different than those listed above shall use the value for the next smaller air space; i.e. 3/4 inch = 1/2 inch U-values, 7/16 inch = 3/8 inch U-values, 5/16 inch = 1/4 inch U-values.~~
- ~~3 Low e4 (emissivity) shall be 0.4 or less.
Low e2 (emissivity) shall be 0.2 or less.
Low e1 (emissivity) shall be 0.1 or less.~~
- ~~4 U values listed for argon shall consist of sealed, gas-filled insulated units for argon, CO₂, SF₆, and argon/SF₆ mixtures. The following conversion factor shall apply to Krypton gas-filled units: 1/4" or greater with krypton is equivalent to 1/2" argon.~~
- ~~5 Dividers placed between glazing: The U value listed shall be used where the divider has a minimum gap of 1/8 inch between the divider and lite of each inside glass surface. Add 0.03 to the listed U value for True Divided Lite windows.~~
- ~~6 "Glass block" assemblies may use a U value of 0.51.~~
- ~~7 Insulated fiberglass framed products shall use wood/vinyl U values.~~
- ~~8 Subtract 0.02 from the listed default values for solariums.~~
- ~~9 Aluminum Thermal Break — An aluminum thermal break framed window shall incorporate the following minimum design characteristics:

 - ~~a) The thermal conductivity of the thermal break material shall be not more than 3.6 Btu-in/h/ft²/F°;~~
 - ~~b) The thermal break material must produce a gap in the frame material of not less than 0.210 inches; and,~~
 - ~~c) All metal framing members of the products exposed to interior and exterior air shall incorporate a thermal break meeting the criteria in a) and b) above.~~~~
- ~~10 Aluminum clad wood windows shall use the U values listed for Aluminum Clad Wood/Reinforced Vinyl windows. Vinyl clad wood window shall use the U values listed for Wood/Vinyl windows. Any vinyl frame window with metal reinforcement in more than one rail shall use the U values listed for Aluminum Clad Wood/Reinforced Vinyl window.~~

TABLE 10-6B¹
DEFAULT U-FACTORS FOR VERTICAL GLAZING
FOR SMALL BUSINESSES

DESCRIPTION ^{2,3,4,5,6}	FRAME TYPE ^{7,8}			
	ALUMINUM	ALUM. THERMAL BREAK ⁹	WOOD/VINYL	ALUM. CLAD WOOD/REINFORCED VINYL ¹⁰
Double, Clear ¼"	0.82	0.66	0.56	0.59
Double, Clear ¼" + argon	0.77	0.63	0.53	0.56
Double, Low-e4 ¼"	0.76	0.61	0.52	0.54
Double, Low-e2 ¼"	0.73	0.58	0.49	0.51
Double, Low-e1 ¼"	0.70	0.55	0.47	0.49
Double, Low-e4 ¼" + argon	0.70	0.55	0.47	0.49
Double, Low-e2 ¼" + argon	0.66	0.52	0.43	0.46
Double, Low-e1 ¼" + argon	0.64	0.50	0.41	0.43
Double, Clear ⅜"	0.78	0.63	0.54	0.57
Double, Clear ⅜" + argon	0.75	0.60	0.51	0.54
Double, Low-e4 ⅜"	0.72	0.57	0.48	0.51
Double, Low-e2 ⅜"	0.69	0.54	0.45	0.48
Double, Low-e1 ⅜"	0.66	0.51	0.43	0.46
Double, Low-e4 ⅜" + argon	0.68	0.53	0.44	0.47
Double, Low-e2 ⅜" + argon	0.63	0.49	0.41	0.44
Double, Low-e1 ⅜" + argon	0.61	0.47	0.39	0.41
Double, Clear ½"	0.75	0.60	0.50	0.54
Double, Clear ½" + argon	0.72	0.58	0.48	0.51
Double, Low-e4 ½"	0.68	0.53	0.44	0.47
Double, Low-e2 ½"	0.64	0.50	0.41	0.44
Double, Low-e1 ½"	0.61	0.47	0.39	0.42
Double, Low-e4 ½" + argon	0.65	0.50	0.42	0.44
Double, Low-e2 ½" + argon	0.60	0.46	0.37	0.40
Double, Low-e1 ½" + argon	0.58	0.43	0.35	0.38
Triple, Clear ¼"	0.66	0.52	0.42	0.44
Triple, Clear ¼" + argon	0.63	0.49	0.39	0.42
Triple, Low-e4 ¼"	0.64	0.50	0.40	0.40
Triple, Low-e2 ¼"	0.62	0.48	0.39	0.41
Triple, Low-e1 ¼"	0.61	0.47	0.38	0.40
Triple, Low-e4 ¼" + argon	0.60	0.46	0.37	0.39
Triple, Low-e2 ¼" + argon	0.58	0.43	0.34	0.37
Triple, Low-e1 ¼" + argon	0.57	0.42	0.34	0.36
Triple, Clear ½"	0.61	0.46	0.37	0.40
Triple, Clear ½" + argon	0.59	0.45	0.36	0.38
Triple, Low-e4 ½"	0.58	0.43	0.35	0.37
Triple, Low-e2 ½"	0.55	0.41	0.32	0.35
Triple, Low-e1 ½"	0.54	0.39	0.31	0.33
Triple, Low-e4 ½" + argon	0.55	0.41	0.32	0.35
Triple, Low-e2 ½" + argon	0.52	0.38	0.30	0.32
Triple, Low-e1 ½" + argon	0.51	0.37	0.29	0.31

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Footnotes to Table 10-6B

- 1 Subtract 0.02 from the listed default U-factor for non-aluminum spacer. Acceptable spacer materials may include but is not limited to fiberglass, wood and butyl or other material with an equivalent thermal performance.
- 2 1/4" = a minimum dead air space of 0.25 inches between the panes of glass.
3/8" = a minimum dead air space of 0.375 inches between the panes of glass.
1/2" = a minimum dead air space of 0.5 inches between the panes of glass.
Product with air spaces different than those listed above shall use the value for the next smaller air space; i.e. 3/4 inch = 1/2 inch U-factors, 7/16 inch = 3/8 inch U-factors, 5/16 inch = 1/4 inch U-factors.
- 3 Low-e4 (emissivity) shall be 0.4 or less.
Low-e2 (emissivity) shall be 0.2 or less.
Low-e1 (emissivity) shall be 0.1 or less.
- 4 U-factors listed for argon shall consist of sealed, gas-filled insulated units for argon, CO2, SF6, and argon/SF6 mixtures. The following conversion factor shall apply to Krypton gas-filled units: 1/4" or greater with krypton is equivalent to 1/2" argon.
- 5 Dividers placed between glazing: The U-factor listed shall be used where the divider has a minimum gap of 1/8 inch between the divider and lite of each inside glass surface. Add 0.03 to the listed U-factor for True Divided Lite windows.
- 6 "Glass block" assemblies may use a U-factor of 0.51.
- 7 Insulated fiberglass framed products shall use wood/vinyl U-factors.
- 8 Subtract 0.02 from the listed default values for solariums.
- 9 Aluminum Thermal Break = An aluminum thermal break framed window shall incorporate the following minimum design characteristics:
 - a) The thermal conductivity of the thermal break material shall be not more than 3.6 Btu-in/h/ft²/F°;
 - b) The thermal break material must produce a gap in the frame material of not less than 0.210 inches; and,
 - c) All metal framing members of the products exposed to interior and exterior air shall incorporate a thermal break meeting the criteria in a) and b) above.
- 10 Aluminum clad wood windows shall use the U-factors listed for Aluminum Clad Wood/Reinforced Vinyl windows. Vinyl clad wood window shall use the U-factors listed for Wood/Vinyl windows. Any vinyl frame window with metal reinforcement in more than one rail shall use the U-factors listed for Aluminum Clad Wood/Reinforced Vinyl window.

TABLE 10-6C
TRANSMISSION COEFFICIENTS (U) FOR WOOD AND STEEL DOORS
Btu/h • ft² • F

Nominal Door Thickness, Inches	Description	No Storm Door	Wood Storm Door ^e	Metal Storm Door ^d
Wood Doors^b				
1-3/8	Panel door with 7/16 inch panels ^e	0.57	0.33	0.37
1-3/8	Hollow core flush door	0.47	0.30	0.32
1-3/8	Solid core flush door	0.39	0.26	0.28
1-3/4	Panel door with 7/16 inch panels ^e	0.57	0.33	0.36
1-3/4	Hollow core flush door	0.46	0.29	0.32
1-3/4	Panel door with 3/4 inch panels ^e	0.40	0.27	0.29
1-3/4	Panel door with 1 1/8 inch panels ^e	0.39	0.26	0.28
1-3/4	Solid core flush door	0.33	0.28	0.25
2-1/4	Solid core flush door	0.27	0.20	0.21
Steel Doors^b				
1-3/4	Fiberglass or mineral wool core w/ steel stiffeners; no thermal break ^f	0.60	—	—
1-3/4	Paper honeycomb core without thermal break ^f	0.56	—	—
1-3/4	Solid urethane foam core without thermal break ^a	0.40	—	—
1-3/4	Solid fire rated mineral fiberboard core without thermal break ^f	0.38	—	—
1-3/4	Polystyrene core without thermal break (18 gage commercial steel) ^f	0.35	—	—
1-3/4	Polyurethane core without thermal break (18 gage commercial steel) ^f	0.29	—	—
1-3/4	Polyurethane core without thermal break (24 gage commercial steel) ^f	0.29	—	—
1-3/4	Polyurethane core w/ thermal break & wood perimeter (24 gage commercial steel) ^f	0.20	—	—
1-3/4	Solid urethane foam core with thermal break	0.19	0.16	0.17

Note: All U values for exterior doors in this table are for doors with no glazing, except for the storm doors which are in addition to the main exterior door. Any glazing area in exterior doors should be included with the appropriate glass type and analyzed. Interpolation and moderate extrapolation are permitted for door thicknesses other than those specified.

a—Values are based on a nominal 32 by 80 in. door size with no glazing.

b—Outside air conditions: 15 mph wind speed, 0° F air temperature; inside air conditions: natural convection, 70° F air temperature.

c—Values for wood storm door are for approximately 50% glass area.

d—Values for metal storm door are for any percent glass area.

e—55% panel area.

f—ASTM C 236 hotbox data on a nominal 3 by 7 ft door size with no glazing.

The U values in Table 6C are for exterior wood and steel doors. The values given for wood doors were calculated, and those for steel doors were taken from hotbox tests (Sabine et al. 1975; Yellot 1965) or from manufacturer's reports. An outdoor surface conductance of 6.0 Btu/h • ft² • °F was used, and the indoor surface conductance was taken as 1.4 Btu/h • ft² • °F for vertical surfaces with horizontal heat flow. All values given are for exterior doors without glazing. If an exterior door contains glazing, refer to Table 10-6D.

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**TABLE 10-6C
DEFAULT U-FACTORS FOR WOOD AND STEEL DOORS**

Nominal Door Thickness, Inches	Description	No Storm Door	Wood Storm Door ^c	Metal Storm Door ^d
Wood Doors^b				
1-3/8	Panel door with 7/16 inch panels ^e	0.57	0.33	0.37
1-3/8	Hollow core flush door	0.47	0.30	0.32
1-3/8	Solid core flush door	0.39	0.26	0.28
1-3/4	Panel door with 7/16 inch panels ^e	0.57	0.33	0.36
1-3/4	Hollow core flush door	0.46	0.29	0.32
1-3/4	Panel door with 3/4 inch panels ^e	0.40	0.27	0.29
1-3/4	Panel door with 1-1/8 inch panels ^e	0.39	0.26	0.28
1-3/4	Solid core flush door	0.33	0.28	0.25
2-1/4	Solid core flush door	0.27	0.20	0.21
Steel Doors^b				
1-3/4	Fiberglass or mineral wool core w/ steel stiffeners, no thermal break ^f	0.60	---	---
1-3/4	Paper honeycomb core without thermal break ^f	0.56	---	---
1-3/4	Solid urethane foam core without thermal break ^a	0.40	---	---
1-3/4	Solid fire rated mineral fiberboard core without thermal break ^f	0.38	---	---
1-3/4	Polystyrene core without thermal break (18 gage commercial steel) ^f	0.35	---	---
1-3/4	Polyurethane core without thermal break (18 gage commercial steel) ^f	0.29	---	---
1-3/4	Polyurethane core without thermal break (24 gage commercial steel) ^f	0.29	---	---
1-3/4	Polyurethane core w/ thermal break & wood perimeter (24 gage commercial steel) ^f	0.20	---	---
1-3/4	Solid urethane foam core with thermal break	0.19	0.16	0.17

Note: All U-factors for exterior doors in this table are for doors with no glazing, except for the storm doors which are in addition to the main exterior door. Any glazing area in exterior doors should be included with the appropriate glass type and analyzed. Interpolation and moderate extrapolation are permitted for door thicknesses other than those specified.

- a Values are based on a nominal 32 by 80 in. door size with no glazing.
- b Outside air conditions: 15 mph wind speed, 0°F air temperature; inside air conditions: natural convection, 70°F air temperature.
- c Values for wood storm door are for approximately 50% glass area.
- d Values for metal storm door are for any percent glass area.
- e 55% panel area.
- f ASTM C 236 hotbox data on a nominal 3 by 7 ft door size with no glazing.

The U-factors in Table 6C are for exterior wood and steel doors. The values given for wood doors were calculated, and those for steel doors were taken from hotbox tests (Sabine et al. 1975; Yellot 1965) or from manufacturer's test reports. An outdoor surface conductance of 6.0 Btu/h•ft²•°F was used, and the indoor surface conductance was taken as 1.4 Btu/h•ft²•°F for vertical surfaces with horizontal heat flow. All values given are for exterior doors without glazing. If an exterior door contains glazing, refer to Table 10-6D.

TABLE 10-6D
APPROVED-GLAZED DOOR DEFAULT U-VALUES³

Description ^{2,3,4,5}	Door Material			
	Insulated ⁶		Wood ⁷	
	Full Lite ^{4,9}	Half Lite ^{10,11}	Full Lite ³	Half Lite ¹⁰
Double, Clear 1/4"	0.39	0.31	0.47	0.42
Double, Clear 1/4" + argon	0.37	0.30	0.45	0.41
Double, Low-e4 1/4"	0.36	0.30	0.44	0.41
Double, Low-e2 1/4"	0.35	0.29	0.43	0.40
Double, Low-e1 1/4"	0.24	0.28	0.41	0.39
Double, Low-e4 1/4" + argon	0.33	0.28	0.41	0.39
Double, Low-e2 1/4" + argon	0.31	0.26	0.39	0.38
Double, Low-e1 1/4" + argon	0.31	0.26	0.38	0.37
Double, Clear 3/8"	0.37	0.30	0.45	0.41
Double, Clear 3/8" + argon	0.36	0.29	0.44	0.41
Double, Low-e4 3/8"	0.34	0.28	0.42	0.40
Double, Low-e2 3/8"	0.33	0.28	0.41	0.39
Double, Low-e1 3/8"	0.21	0.26	0.38	0.37
Double, Low-e4 3/8" + argon	0.32	0.27	0.40	0.38
Double, Low-e2 3/8" + argon	0.29	0.25	0.37	0.37
Double, Low-e1 3/8" + argon	0.29	0.25	0.36	0.36
Double, Clear 1/2"	0.36	0.29	0.44	0.41
Double, Clear 1/2" + argon	0.34	0.28	0.42	0.40
Double, Low-e4 1/2"	0.32	0.27	0.40	0.38
Double, Low-e2 1/2"	0.30	0.26	0.38	0.37
Double, Low-e1 1/2"	0.29	0.25	0.36	0.36
Double, Low-e4 1/2" + argon	0.30	0.26	0.38	0.37
Double, Low-e2 1/2" + argon	0.28	0.25	0.36	0.36
Double, Low-e1 1/2" + argon	0.28	0.24	0.34	0.35
Triple, Clear 1/4"	0.31	0.26	0.39	0.38
Triple, Clear 1/4" + argon	0.29	0.25	0.37	0.37
Triple, Low-e4 1/4"	0.30	0.26	0.38	0.37
Triple, Low-e2 1/4"	0.29	0.25	0.37	0.36
Triple, Low-e4 1/4" + argon	0.27	0.24	0.35	0.35
Triple, Low-e2 1/4" + argon	0.26	0.24	0.34	0.35

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Footnotes to Table 10-6D

- ~~1 Subtract 0.02 from the listed default U value for insulated spacers. Insulated spacer material includes fiberglass, wood and butyl or other material with an equivalent Thermal performance.~~
- ~~2 1/4" = a minimum dead air space of 0.25 inches between the panes of glass.
 3/8" = a minimum dead air space of 0.375 inches between the panes of glass.
 1/2" = a minimum dead air space of 0.5 inches between the panes of glass.
 Products with air spaces different than those listed above shall use the value for next smaller air space; i.e. 3/4 inch = 1/2 inch U values, 7/16 inch = 3/8 inch U values, 5/16 inch = 1/4 inch U values.~~
- ~~3 Low e4 (emissivity) shall be 0.4 or less.
 Low e2 (emissivity) shall be 0.2 or less.
 Low e1 (emissivity) shall be 0.1 or less.~~
- ~~4 U values listed for argon shall consist of sealed, gas filled, insulated units for argon, CO2, SF6 and argon/SF6 mixtures.
 The following conversion factor shall apply to Krypton gas filled units:
 1/4 inch or greater airspace of Krypton gas fill = 1/2 inch air space Argon gas fill.~~
- ~~5 Dividers placed between glazing: The U values listed shall be used where the divider has a minimum gap of 1/8 inch between the divider and lite of each inside glass surface. Add 0.03 to the listed U value for True Divided Lite windows.~~
- ~~6 Insulated = Any urethane insulated foam core door with a thermal break. Thermal Break = A thermal break door shall incorporate the following design characteristics:
 a) The thermal conductivity of the thermal break material shall be not more than 3.6 Btu in/h•ft²•°F; and
 b) The thermal break material shall not be less than 0.210 inches.~~
- ~~7 Wood = any wood door.~~
- ~~8 Full Lite = A door that consists of more than 50% glazing.~~
- ~~9 Add 0.05 to the listed U value for Full Lite values if the insulated door does not have a thermal break.~~
- ~~10 Half Lite = A door that consists of 50% or less glazing.~~
- ~~11 Add 0.06 to the listed U value for Half Lite values if the insulated door does not have a thermal break.~~

**TABLE 10-6D
DEFAULT U-FACTORS FOR GLAZED DOORS²**

Description ^{2,3,4,5}	Door Material			
	Insulated ⁶		Wood ⁷	
	Full-Lite ^{4,9}	Half-Lite ^{10,11}	Full-Lite ³	Half-Lite ¹⁰
Double, Clear 1/4"	0.39	0.31	0.47	0.42
Double, Clear 1/4" + argon	0.37	0.30	0.45	0.41
Double, Low-e4 1/4"	0.36	0.30	0.44	0.41
Double, Low-e2 1/4"	0.35	0.29	0.43	0.40
Double, Low-e1 1/4"	0.24	0.28	0.41	0.39
Double, Low-e4 1/4" + argon	0.33	0.28	0.41	0.39
Double, Low-e2 1/4" + argon	0.31	0.26	0.39	0.38
Double, Low-e1 1/4" + argon	0.31	0.26	0.38	0.37
Double, Clear 3/8"	0.37	0.30	0.45	0.41
Double, Clear 3/8" + argon	0.36	0.29	0.44	0.41
Double, Low-e4 3/8"	0.34	0.28	0.42	0.40
Double, Low-e2 3/8"	0.33	0.28	0.41	0.39
Double, Low-e1 3/8"	0.21	0.26	0.38	0.37
Double, Low-e4 3/8" + argon	0.32	0.27	0.40	0.38
Double, Low-e2 3/8" + argon	0.29	0.25	0.37	0.37
Double, Low-e1 3/8" + argon	0.29	0.25	0.36	0.36
Double, Clear 1/2"	0.36	0.29	0.44	0.41
Double, Clear 1/2" + argon	0.34	0.28	0.42	0.40
Double, Low-e4 1/2"	0.32	0.27	0.40	0.38
Double, Low-e2 1/2"	0.30	0.26	0.38	0.37
Double, Low-e1 1/2"	0.29	0.25	0.36	0.36
Double, Low-e4 1/2" + argon	0.30	0.26	0.38	0.37
Double, Low-e2 1/2" + argon	0.28	0.25	0.36	0.36
Double, Low-e1 1/2" + argon	0.28	0.24	0.34	0.35
Triple, Clear 1/4"	0.31	0.26	0.39	0.38
Triple, Clear 1/4" + argon	0.29	0.25	0.37	0.37
Triple, Low-e4 1/4"	0.30	0.26	0.38	0.37
Triple, Low-e2 1/4"	0.29	0.25	0.37	0.36
Triple, Low-e4 1/4" + argon	0.27	0.24	0.35	0.35
Triple, Low-e2 1/4" + argon	0.26	0.24	0.34	0.35

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Footnotes to Table 10-6D

- 1 Subtract 0.02 from the listed default U-factor for insulated spacers. Insulated spacer material includes fiberglass, wood and butyl or other material with an equivalent Thermal performance.
- 2 1/4" = a minimum dead air space of 0.25 inches between the panes of glass.
3/8" = a minimum dead air space of 0.375 inches between the panes of glass.
1/2" = a minimum dead air space of 0.5 inches between the panes of glass.
Products with air spaces different than those listed above shall use the value for next smaller air space;
i.e. 3/4 inch = 1/2 inch U-factors, 7/16 inch = 3/8 inch U-factors, 5/16 inch = 1/4 inch U-factors.
- 3 Low-e4 (emissivity) shall be 0.4 or less.
Low-e2 (emissivity) shall be 0.2 or less.
Low-e1 (emissivity) shall be 0.1 or less.
- 4 U-factors listed for argon shall consist of sealed, gas-filled, insulated units for argon, CO2, SF6 and argon/SF6 mixtures.
The following conversion factor shall apply to Krypton gas-filled units:
1/4 inch or greater airspace of Krypton gas-fill = 1/2 inch air space Argon gas-fill.
- 5 Dividers placed between glazing: The U-factors listed shall be used where the divider has a minimum gap of 1/8 inch between the divider and lite of each inside glass surface. Add 0.03 to the listed U-factor for True Divided Lite windows.
- 6 Insulated = Any urethane insulated foam core door with a thermal break. Thermal Break = A thermal break door shall incorporate the following design characteristics:
 - a) The thermal conductivity of the thermal break material shall be not more than 3.6 Btu-in/h•ft²•°F; and
 - b) The thermal break material shall not be less than 0.210 inches.
- 7 Wood = any wood door.
- 8 Full-Lite = A door that consists of more than 50% glazing.
- 9 Add 0.05 to the listed U-factor for Full-Lite values if the insulated door does not have a thermal break.
- 10 Half-Lite = A door that consists of 50% or less glazing.
- 11 Add 0.06 to the listed U-factor for Half-Lite values if the insulated door does not have a thermal break.

**TABLE 10-6E
DEFAULT U-FACTORS FOR OVERHEAD GLAZING**

Glazing Type	Frame Type			
	Aluminum without Thermal Break	Aluminum with Thermal Break	Reinforced Vinyl/ Aluminum-Clad Wood or Vinyl	Wood or Vinyl-Clad Wood/ Vinyl without Reinforcing
Single Glazing glass	U-1.58	U-1.51	U-1.40	U-1.18
	U-1.52	U-1.45	U-1.34	U-1.11
Double Glazing air	U-1.05	U-0.89	U-0.84	U-0.67
	U-1.02	U-0.86	U-0.80	U-0.64
Double Glazing, e=0.20 air	U-0.96	U-0.80	U-0.75	U-0.59
	U-0.91	U-0.75	U-0.70	U-0.54
Double Glazing, e=0.10 air	U-0.94	U-0.79	U-0.74	U-0.58
	U-0.89	U-0.73	U-0.68	U-0.52
Double Glazing, e=0.05 air	U-0.93	U-0.78	U-0.73	U-0.56
	U-0.87	U-0.71	U-0.66	U-0.50
Triple Glazing air	U-0.90	U-0.70	U-0.67	U-0.51
	U-0.87	U-0.69	U-0.64	U-0.48
Triple Glazing, e=0.20 air	U-0.86	U-0.68	U-0.63	U-0.47
	U-0.82	U-0.63	U-0.59	U-0.43
Triple Glazing, e=0.20 on 2 surfaces air	U-0.82	U-0.64	U-0.60	U-0.44
	U-0.79	U-0.60	U-0.56	U-0.40
Triple Glazing, e=0.10 on 2 surfaces air	U-0.81	U-0.62	U-0.58	U-0.42
	U-0.77	U-0.58	U-0.54	U-0.38
Quadruple Glazing, e=0.10 on 2 surfaces air	U-0.78	U-0.59	U-0.55	U-0.39
	U-0.74	U-0.56	U-0.52	U-0.36
	U-0.70	U-0.52	U-0.48	U-0.32

1. U-factors are applicable to both glass and plastic, flat and domed units, all spacers and gaps.
2. Emissivities shall be less than or equal to the value specified.
3. Gap fill shall be assumed to be air unless there is a minimum of 90% argon or krypton.
4. Aluminum frame with thermal break is as defined in footnote 9 to Table 10-6B.

PERMANENT

AMENDATORY SECTION (Amending WSR 91-01-112, filed 12/19/90, effective 7/1/91)

WAC 51-11-1007 ((~~Reserved~~)) Section 1007 Ceilings.

1007.1 General: Table 10-7 lists heat-loss coefficients for the opaque portion of exterior ceilings below vented attics, vaulted ceilings, and roof decks in units of Btu/hr•°F per square foot of ceiling.

They are derived from procedures listed in Standard RS-1, listed in Chapter 7. Ceiling U-factors are modified for the buffering effect of the attic, assuming an indoor temperature of 65° F and an outdoor temperature of 45° F.

1007.2 Component Description: The three types of ceilings are characterized as follows:

Ceilings Below a Vented Attic: Attic insulation is assumed to be blown-in, loose-fill fiberglass with a K-value of 2.6 hr•ft²•°F/Btu per inch. Full bag count for specified R-value is assumed in all cases. Ceiling dimensions for flat ceiling calculations are forty-five by thirty feet, with a gabled roof having a 4/12 pitch. The attic is assumed to vent naturally at the rate of three air changes per hour through soffit and ridge vents. A void fraction of 0.002 is assumed for all attics with insulation baffles. Standard-framed, unbaffled attics assume a void fraction of 0.008.

Attic framing is either standard or advanced. Standard framing assumes tapering of insulation depth around the perimeter with resultant decrease in thermal resistance. An increased R-value is assumed in the center of the ceiling due to the effect of piling leftover insulation. Advanced framing assumes full and even depth of insulation extending to the outside edge of exterior walls. Advanced framing does not change from the default value.

U-factors for flat ceilings below vented attics with standard framing may be modified with the following table:

<u>Roof Pitch</u>	<u>U-Factor for Standard Framing</u>	
	<u>R-30</u>	<u>R-38</u>
<u>4/12</u>	<u>0.036</u>	<u>0.031</u>
<u>5/12</u>	<u>0.035</u>	<u>0.030</u>
<u>6/12</u>	<u>0.034</u>	<u>0.029</u>
<u>7/12</u>	<u>0.034</u>	<u>0.029</u>
<u>8/12</u>	<u>0.034</u>	<u>0.028</u>
<u>9/12</u>	<u>0.034</u>	<u>0.028</u>
<u>10/12</u>	<u>0.033</u>	<u>0.028</u>
<u>11/12</u>	<u>0.033</u>	<u>0.027</u>
<u>12/12</u>	<u>0.033</u>	<u>0.027</u>

Vented scissors truss attics assume a ceiling pitch of 2/12 with a roof pitch of either 4/12 or 5/12. Unbaffled standard framed scissors truss attics are assumed to have a void fraction of 0.016.

Vaulted Ceilings: Insulation is assumed to be fiberglass batts installed in roof joist cavities. In the vented case, at least 1.5-inches between the top of the batts and the underside of the roof sheathing is left open for ventilation in each cavity. A ventilation rate of three air changes per hour is assumed. In the unvented or dense pack case, the ceiling

cavity is assumed to be fully packed with insulation, leaving no space for ventilation.

Roof Decks: Rigid insulation is applied to the top of roof decking with no space left for ventilation. Roofing materials are attached directly on top of the insulation. Framing members are often left exposed on the interior side.

Metal Truss Framing: Overall system tested values for the roof/ceiling U_o for metal framed truss assemblies from approved laboratories shall be used, when such data is acceptable to the building official.

Alternatively, the U_o for roof/ceiling assemblies using metal truss framing may be obtained from Tables 10-7A, 10-7B, 10-7C, 10-7D and 10-7E.

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**TABLE 10-7
DEFAULT U-FACTORS FOR CEILINGS**

Ceilings Below Vented Attics

	Standard Frame	Advanced Frame
Flat Ceiling	Baffled	
R-19	0.049	0.047
R-30	0.036	0.032
R-38	0.031	0.026
R-49	0.027	0.020
R-60	0.025	0.017
Scissors Truss		
R-30 (4/12 roof pitch)	0.043	0.031
R-38 (4/12 roof pitch)	0.040	0.025
R-49 (4/12 roof pitch)	0.038	0.020
R-30 (5/12 roof pitch)	0.039	0.032
R-38 (5/12 roof pitch)	0.035	0.026
R-49 (5/12 roof pitch)	0.032	0.020
Vaulted Ceilings		
	16" O.C.	24" O.C.
Vented		
R-19 2x10 joist	0.049	0.048
R-30 2x12 joist	0.034	0.033
R-38 2x14 joist	0.027	0.027
Unvented		
R-30 2x10 joist	0.034	0.033
R-38 2x12 joist	0.029	0.027
R-21 + R-21 2x12 joist	0.026	0.025
Roof Deck		
	4x Beams, 48" O.C.	
R-12.5 2" Rigid insulation	0.064	
R-21.9 3.5" Rigid insulation	0.040	
R-37.5 6" Rigid insulation	0.025	
R-50 8" Rigid insulation	0.019	

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Table 10-7A
Steel Truss¹ Framed Ceiling U_o

Cavity R-value	Truss Span (ft)												
	12	14	16	18	20	22	24	26	28	30	32	34	36
19	0.1075	0.0991	0.0928	0.0878	0.0839	0.0807	0.0780	0.0757	0.0737	0.0720	0.0706	0.0693	0.0681
30	0.0907	0.0823	0.0760	0.0710	0.0671	0.0638	0.0612	0.0589	0.0569	0.0552	0.0538	0.0525	0.0513
38	0.0844	0.0759	0.0696	0.0647	0.0607	0.0575	0.0548	0.0525	0.0506	0.0489	0.0474	0.0461	0.0449
49	0.0789	0.0704	0.0641	0.0592	0.0552	0.0520	0.0493	0.0470	0.0451	0.0434	0.0419	0.0406	0.0395

Table 10-7B
Steel Truss¹ Framed Ceiling U_o with R-3 Sheathing²

Cavity R-value	Truss Span (ft)												
	12	14	16	18	20	22	24	26	28	30	32	34	36
19	0.0809	0.0763	0.0728	0.0701	0.0679	0.0661	0.0647	0.0634	0.0623	0.0614	0.0606	0.0599	0.0592
30	0.0641	0.0595	0.0560	0.0533	0.0511	0.0493	0.0478	0.0466	0.0455	0.0446	0.0438	0.0431	0.0424
38	0.0577	0.0531	0.0496	0.0469	0.0447	0.0430	0.0415	0.0402	0.0392	0.0382	0.0374	0.0367	0.0361
49	0.0523	0.0476	0.0441	0.0414	0.0393	0.0375	0.0360	0.0348	0.0337	0.0328	0.0319	0.0312	0.0306

Table 10-7C
Steel Truss¹ Framed Ceiling U_o with R-5 Sheathing²

Cavity R-value	Truss Span (ft)												
	12	14	16	18	20	22	24	26	28	30	32	34	36
19	0.0732	0.0697	0.0670	0.0649	0.0633	0.0619	0.0608	0.0598	0.0590	0.0583	0.0577	0.0571	0.0567
30	0.0564	0.0529	0.0502	0.0481	0.0465	0.0451	0.0440	0.0430	0.0422	0.0415	0.0409	0.0403	0.0399
38	0.0501	0.0465	0.0438	0.0418	0.0401	0.0388	0.0376	0.0367	0.0359	0.0351	0.0345	0.0340	0.0335
49	0.0446	0.0410	0.0384	0.0363	0.0346	0.0333	0.0322	0.0312	0.0304	0.0297	0.0291	0.0285	0.0280

Table 10-7D
Steel Truss¹ Framed Ceiling U_o with R-10 Sheathing²

Cavity R-value	Truss Span (ft)												
	12	14	16	18	20	22	24	26	28	30	32	34	36
19	0.0626	0.0606	0.0590	0.0578	0.0569	0.0561	0.0555	0.0549	0.0545	0.0541	0.0537	0.0534	0.0531
30	0.0458	0.0437	0.0422	0.0410	0.0401	0.0393	0.0387	0.0381	0.0377	0.0373	0.0369	0.0366	0.0363
38	0.0394	0.0374	0.0359	0.0347	0.0337	0.0330	0.0323	0.0318	0.0313	0.0309	0.0305	0.0302	0.0299
49	0.0339	0.0319	0.0304	0.0292	0.0283	0.0275	0.0268	0.0263	0.0258	0.0254	0.0251	0.0247	0.0245

Table 10-7E
Steel Truss¹ Framed Ceiling U_o with R-15 Sheathing²

Cavity R-value	Truss Span (ft)												
	12	14	16	18	20	22	24	26	28	30	32	34	36
19	0.0561	0.0550	0.0541	0.0535	0.0530	0.0526	0.0522	0.0519	0.0517	0.0515	0.0513	0.0511	0.0509
30	0.0393	0.0382	0.0373	0.0367	0.0362	0.0358	0.0354	0.0351	0.0349	0.0347	0.0345	0.0343	0.0341
38	0.0329	0.0318	0.0310	0.0303	0.0298	0.0294	0.0291	0.0288	0.0285	0.0283	0.0281	0.0279	0.0278
49	0.0274	0.0263	0.0255	0.0249	0.0244	0.0239	0.0236	0.0233	0.0230	0.0228	0.0226	0.0225	0.0223

1 - Assembly values based on 24 inch on center truss spacing; 11 Truss member connections penetrating insulation (4 at the eaves, 7 in the interior space); ½ inch drywall ceiling; all truss members are 2x4 "C" channels with a solid web.

2 - Ceiling sheathing installed between bottom chord and drywall.

PERMANENT

AMENDATORY SECTION (Amending WSR 91-01-112, filed 12/19/90, effective 7/1/91)

WAC 51-11-1008 ((Section 1007 Ceilings.)) Section 1008 Air infiltration.

~~((1007.1 General: Table 10-7 lists heat loss coefficients for the opaque portion of exterior ceilings below vented attics, vaulted ceilings, and roof decks in units of Btu/°F·hr per square foot of ceiling.~~

~~They are derived from procedures listed in RS-1, listed in Chapter 7. Ceiling U-values are modified for the buffering effect of the attic, assuming an indoor temperature of 65° F and an outdoor temperature of 45° F.~~

~~1007.2 Component Description: The three types of ceilings are characterized as follows:~~

~~Ceilings Below a Vented Attic: Attic insulation is assumed to be blown in, loose fill fiberglass with a K-value of 2.6 hr·°F·ft²/Btu per inch. Full bag count for specified R-value is assumed in all cases. Ceiling dimensions for flat ceiling calculations are forty five by thirty feet, with a gabled roof having a 4/12 pitch. The attic is assumed to vent naturally at the rate of three air changes per hour through soffit and ridge vents. A void fraction of 0.002 is assumed for all attics with insulation baffles. Standard-framed, unbaffled attics assume a void fraction of 0.008.~~

~~Attic framing is either standard or advanced. Standard framing assumes tapering of insulation depth around the perimeter with resultant decrease in thermal resistance. An increased R-value is assumed in the center of the ceiling due to the effect of piling leftover insulation. Advanced framing assumes full and even depth of insulation extending to the outside edge of exterior walls. Advanced framing does not change from the default value.~~

~~U-Values for flat ceilings below vented attics with standard framing may be modified with the following table:~~

Roof Pitch	U Value for Standard Framing	
	R 30	R 38
4/12	.036	.031
5/12	.035	.030
6/12	.034	.029
7/12	.034	.029
8/12	.034	.028
9/12	.034	.028
10/12	.033	.028
11/12	.033	.027
12/12	.033	.027

~~Vented seissors truss attics assume a ceiling pitch of 2/12 with a roof pitch of either 4/12 or 5/12. Unbaffled standard framed seissors truss attics are assumed to have a void fraction of .016.~~

~~Vaulted Ceilings: Insulation is assumed to be fiberglass batts installed in roof joist cavities. In the vented case, at least 1.5 inches between the top of the batts and the underside of the roof sheathing is left open for ventilation in each cavity. A ventilation rate of three air changes per hour is assumed. In the unvented or dense pack case, the ceiling~~

~~cavity is assumed to be fully packed with insulation, leaving no space for ventilation.~~

~~Roof Decks: Rigid insulation is applied to the top of roof decking with no space left for ventilation. Roofing materials are attached directly on top of the insulation. Framing members are often left exposed on the interior side.~~

PERMANENT

**TABLE 10-7
DEFAULT U-VALUES FOR CEILINGS**

Ceilings Below Vented Attics

	Standard Frame	Advanced Frame
Flat Ceiling	Baffled	
— R-19	0.049	0.047
— R-30	0.036	0.032
— R-38	0.031	0.026
— R-49	0.027	0.020
— R-60	0.025	0.017
Scissors Truss		
— R-30 (4/12 roof pitch)	0.043	0.031
— R-38 (4/12 roof pitch)	0.040	0.025
— R-49 (4/12 roof pitch)	0.038	0.020
— R-30 (5/12 roof pitch)	0.039	0.032
— R-38 (5/12 roof pitch)	0.035	0.026
— R-49 (5/12 roof pitch)	0.032	0.020
Vaulted Ceilings		
	16" O.C.	24" O.C.
Vented		
— R-19 2x10 joist	0.049	0.048
— R-30 2x12 joist	0.034	0.033
— R-38 2x14 joist	0.027	0.027
Unvented		
— R-30 2x10 joist	0.034	0.033
— R-38 2x12 joist	0.029	0.027
— R-21 + R-21 2x12 joist	0.026	0.025
Roof Deck		
	4x Beams, 48" O.C.	
— R-12.5 2" Rigid insulation	0.064	
— R-21.9 3.5" Rigid insulation	0.040	
— R-37.5 6" Rigid insulation	0.025	
— R-50 8" Rigid insulation	0.019	

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1008.1 General: Tables 10-8 and 10-9 list effective air change rates and heat capacities for heat loss due to infiltration.

Estimated seasonal average infiltration rate in air changes per hour (ACH) is given for standard air-leakage control (see section 502.4 of this code for air leakage requirements). The effective air-change rate shall be used in calculations for compliance under either the Component Performance or Systems Analysis approaches.

Heat loss due to infiltration shall be computed using the following equation:

$$Q_{infil} = ACH_{eff} * HCP$$

where: Q_{infil} = Heat loss due to air infiltration

ACH_{eff} = the effective air infiltration rate in Table 10-8

HCP = the Heat Capacity Density Product for the appropriate elevation or climate zone as given below.

**TABLE 10-8
ASSUMED EFFECTIVE AIR CHANGES PER HOUR**

<u>Air-Leakage Control Package</u>	<u>Air Changes per Hour</u>	
	<u>Natural</u>	<u>Effective</u>
Standard	0.35	0.35

**TABLE 10-9
DEFAULT HEAT CAPACITY/DENSITY PRODUCT FOR AIR**

Zone	Average Elevation	Heat Capacity/Density
1	Mean Sea Level	0.0180 Btu/h•°F
2	2000'	0.0168 Btu/h•°F
3	3000	0.0162 Btu/h•°F

PERMANENT

AMENDATORY SECTION (Amending WSR 91-01-112, filed 12/19/90, effective 7/1/91)

WAC 51-11-1009 (~~Section 1008 Air infiltration.~~)
Section 1009 Mass.

~~((1008.1 General: Tables 10-8 and 10-9 list effective air change rates and heat capacities for heat loss due to infiltration.~~

~~Estimated seasonal average infiltration rate in air changes per hour (ACH) is given for standard air leakage control (see section 502.4 Air Leakage for All Occupancies). The effective air change rate shall be used in calculations for compliance under either the Component Performance or Systems Analysis approaches.~~

~~Heat loss due to infiltration shall be computed using the following equation:~~

~~$$Q_{infil} = ACH_{eff} * HCP$$~~

~~where: Q_{infil} = Heat loss due to air infiltration~~

~~ACH_{eff} = the effective infiltration rate in Table 10-8~~

~~HCP = the Heat Capacity Density Product for the appropriate elevation or climate zone as given below.~~

TABLE 10-8
ASSUMED EFFECTIVE AIR CHANGES PER HOUR

Air Leakage Control Package	Air Changes per Hour	
	Natural	Effective
Standard	0.35	0.35

TABLE 10-9
DEFAULT HEAT CAPACITY/DENSITY PRODUCT FOR AIR

Zone	Average Elevation	Heat Capacity/Density
1	Mean Sea Level	0.0180 Btu/h•°F
2	2000	0.0168 Btu/h•°F
3	3000	0.0162 Btu/h•°F

1009.1 General: Table 10-10 lists default mass-values for residential construction types. All calculations are based on standard ASHRAE values for heat-storage capacity as listed in Standard RS-1 Chapter 24.

Thermal capacity of furniture is ignored, as is heat storage beyond the first four inches of mass thickness. All mass is assumed to be in direct contact with the conditioned space. Concrete separated from the heated volume by other materials must multiply the listed concrete mass value by the result of the following formula:

$$\ln(R\text{-value}) \times (-.221) + 0.5$$

Where:

$$\ln = \text{Natural log}$$

$$R\text{-value} = R\text{-value of material covering concrete}$$

Note: All default values for covered concrete slabs have been adjusted according to this procedure.

1009.2 Mass Description: Mass is divided into two types: Structural and additional.

Structural Mass: Includes heat-storage capacity of all standard building components of a typical residential structure, including floors, ceilings, and interior and exterior walls in Btu/ft²•°F of floor area. It also assumes exterior wall, interior wall and ceiling surface area approximately equals three times the floor area.

Additional Mass: Includes any additional building material not part of the normal structure, which is added specifically to increase the building's thermal-storage capability. This category includes masonry fireplaces, water

or trombe walls, and extra layers of sheetrock. Coefficients are in Btu/ft²•°F of surface area of material exposed to conditioned space. The coefficient for water is Btu/°F•gallon.

1009.3 Component Description: Light frame assumes one inch thick wood flooring with five-eighths inch sheetrock on ceilings and interior walls, and walls consisting of either five-eighths inch sheetrock or solid logs. Slab assumes a four-inch concrete slab on or below grade, with five-eighths inch sheetrock on exterior and interior walls and ceiling, and with separate values for interior or exterior wall insulation. Adjustments for slab covering is based on R-value of material. Additional mass values are based on the density multiplied by the specific heat of the material adjusted for listed thickness.

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**TABLE 10-10
DEFAULT MASS VALUES**

Structural Mass M-value	Btu/ft²•°F floor area
Light Frame:	
Joisted/post & beam floor, sheetrock walls and ceilings	3.0
Joisted/post & beam floor, log walls, sheetrock ceilings	4.0
Slab With Interior Wall Insulation:	
Slab, no covering or tile, sheetrock walls and ceilings	10.0
Slab, hardwood floor covering, sheetrock walls and ceilings	7.0
Slab, carpet and pad, sheetrock walls and ceilings	5.0
Slab With Exterior Wall Insulation:	
Slab, no covering or tile, sheetrock walls and ceilings	12.0
Slab, hardwood floor covering, sheetrock walls and ceilings	9.0
Slab, carpet and pad, sheetrock walls and ceilings	7.0
Additional Mass M-Value:	
	Btu/ft²•°F surface area
Gypsum wallboard, 1/2 inch thickness	0.54
Gypsum wallboard, 5/8 inch thickness	0.68
Hardwood floor	1.40
Concrete/Brick, 4 inch-thickness	10.30
Concrete/Brick, 6 inch-thickness	15.40
	Btu/°F•gallon
Water, 1 gallon	8.0

AMENDATORY SECTION (Amending WSR 93-21-052, filed 10/18/93, effective 4/1/94)

WAC 51-11-1120 Scope. This Code sets forth minimum requirements for the design of new or altered buildings and structures or portions thereof that provide facilities or shelter for public assembly, educational, busi-

ness, mercantile, institutional, storage, factory, and industrial occupancies by regulating their exterior envelopes and the selection of their HVAC, service water heating, electrical distribution and illuminating systems and equipment for efficient use and conservation of energy.

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EXCEPTION: The provisions of this code do not apply to temporary growing structures used solely for the commercial production of horticultural plants including ornamental plants, flowers, vegetables, and fruits. "Temporary growing structure" means a structure that has the sides and roof covered with polyethylene, polyvinyl, or similar flexible synthetic material and is used to provide plants with either frost protection or increased heat retention. A temporary growing structure is not considered a building for purposes of this code.

AMENDATORY SECTION (Amending WSR 93-21-052, filed 10/18/93, effective 4/1/94)

WAC 51-11-1130 Application to existing buildings. Additions, alterations or repairs, changes of occupancy or use, ~~((and))~~ or historic buildings that do not comply with the requirements for new buildings, shall comply with the requirements in Sections 1130 through 1134 as applicable.

EXCEPTION: The building official may approve designs of alterations or repairs which do not fully conform with all of the requirements of Sections 1130 through 1134 where in the opinion of the building official full compliance is physically impossible and/or economically impractical and the alteration or repair improves the energy efficiency of the building.

In no case shall energy code requirements be less than those requirements in effect at the time of the initial construction of the building.

AMENDATORY SECTION (Amending WSR 93-21-052, filed 10/18/93, effective 4/1/94)

WAC 51-11-1132 Alterations and repairs. Alterations and repairs to buildings or portions thereof originally constructed subject to the requirements of this Code shall conform to the provisions of this Code without the use of the exception in Section 1130. Other alterations and repairs may be made to existing buildings and moved buildings without making the entire building comply with all of the requirements of this Code for new buildings, provided the following requirements are met:

1132.1 Building Envelope: Alterations or repairs shall comply with nominal R-values and glazing requirements in Table 13-1 or 13-2.

- EXCEPTIONS:**
1. Storm windows installed over existing glazing.
 2. Glass replaced in existing sash and frame provided that glazing is of equal or lower U-factor.
 3. For solar heat gain coefficient compliance, glazing with a solar heat gain coefficient equal to or lower than that of the other existing glazing.
 4. Existing roof/ceiling, wall or floor cavities exposed during construction provided that these cavities are insulated to full depth with insulation having a minimum nominal value of R-3.0 per inch installed per Sections 1311 and 1313.
 5. Existing walls and floors without framing cavities, provided that any new cavities added to existing walls and floors comply with Exception 4.
 6. Existing roofs where the roof membrane is being replaced and
 - a. The roof sheathing or roof insulation is not exposed; or
 - b. If there is existing roof insulation below the deck.

In no case shall the energy efficiency of the building be decreased.

1132.2 Building Mechanical Systems: Those parts of systems which are altered or replaced shall comply with Chapter 14 of this Code.

1132.3 Lighting and Motors: Tenant improvements, alterations or repairs where 60 percent or more of the fixtures are new shall comply with Sections 1531 and 1532. Where less than 60 percent of the fixtures are new, the installed lighting wattage shall be maintained or reduced. Where 60 percent or more of the lighting fixtures in a suspended ceiling are new, and the existing insulation is on the suspended ceiling, the roof/ceiling assembly shall be insulated according to the provisions of Chapter 13 Section 1311.2.

Where new wiring is being installed to serve added fixtures and/or fixtures are being relocated to a new circuit, controls shall comply with Sections 1513.1 through 1513.5. Where a new lighting panel with all new raceway and conductor wiring from the panel to the fixtures is being installed, controls shall comply with Section 1513.6.

Those motors which are altered or replaced shall comply with Section 1511.

AMENDATORY SECTION (Amending WSR 93-21-052, filed 10/18/93, effective 4/1/94)

WAC 51-11-1133 Change of occupancy or use. Changes of occupancy or use shall comply with the following requirements:

- a. Any unconditioned space that is altered to become ~~((conditioned))~~ semi-heated, cooled, or fully heated, or any semi-heated space that is altered to become cooled or fully heated space shall be required to be brought into full compliance with this Code.
- b. Any Group R Occupancy which is converted to other than a Group R Occupancy shall be required to comply with all of the provisions of Sections 1130 through 1132 of this Code.

AMENDATORY SECTION (Amending WSR 97-03-017, filed 1/7/97, effective 7/1/97)

WAC 51-11-1210 Application of terms. For the purposes of this Code, certain abbreviations, terms, phrases, words and their derivatives, shall be as set forth in this chapter. Where terms are not defined, they shall have their ordinary accepted meanings within the context with which they are used. In the event there is a question about the definition of a term, the definitions for terms in the Codes enumerated in RCW 19.27.031 and the edition of Webster's dictionary referenced therein shall be considered as the sources for providing ordinarily accepted meanings.

~~((AAMA: American Architectural Manufacturers Association.))~~

ADDITION: See the Washington State Building Code.

ADVANCED FRAMED CEILING: Advanced framing assumes full and even depth of insulation extending to the outside edge of exterior walls. (See **Standard Framing** and Section 2007.2 of this Code.)

ADVANCED FRAMED WALLS: Studs framed on twenty-four inch centers with double top plate and single bottom plate. Corners use two studs or other means of fully insulating corners, and one stud is used to support each header. Headers consist of double 2X material with R-10 insulation between the header and exterior sheathing.

PERMANENT

Interior partition wall/interior wall intersections are fully insulated in the exterior wall. (See **Standard Framing** and Section 2005.2 of this Code.)

AFUE - ANNUAL FUEL UTILIZATION EFFICIENCY: Unlike steady state conditions, this rating is based on average usage including on and off cycling as set out in the standardized Department of Energy Test Procedures.

AIR CONDITIONING, COMFORT: The process of treating air to control simultaneously its temperature, humidity, cleanliness and distribution to meet requirements of the conditioned space.

ARI: Air Conditioning and Refrigeration Institute.

ASHRAE: American Society of Heating, Refrigerating and Air Conditioning Engineers, Inc.

ASTM: American Society for Testing and Materials.

AUTOMATIC: Self-acting, operating by its own mechanism when actuated by some impersonal influence, as for example, a change in current strength, pressure, temperature or mechanical configuration. (See **Manual**.)

BELOW GRADE WALLS: Walls or the portion of walls which are entirely below the finished grade or which extend two feet or less above the finish grade.

BOILER CAPACITY: The rate of heat output in Btu/h measured at the boiler outlet, at the design inlet and outlet conditions and rated fuel/energy input.

BUILDING ENVELOPE: The elements of a building which enclose conditioned spaces through which thermal energy may be transferred to or from the exterior, or to or from unconditioned spaces, or to or from semi-heated spaces, or to or from spaces exempted by the provisions of Section 1301.

BUILDING, EXISTING: See the Washington State Building Code.

BUILDING OFFICIAL: The official authorized to act in behalf of a jurisdiction code enforcement agency or its authorized representative.

BUILDING PROJECT: A building or group of buildings, including on-site energy conversion or electric-generating facilities, which utilize a single submittal for a construction permit or are within the boundary of a contiguous area under one ownership.

CONDITIONED FLOOR AREA: (See **Gross Conditioned Floor Area**.)

CONDITIONED SPACE: A cooled space, heated space (fully heated), heated space (semi-heated), or indirectly conditioned space.

COOLED SPACE: An enclosed space within a building that is cooled by a cooling system whose sensible capacity

- exceeds 5 Btu/(h•ft²), or
- is capable of maintaining space dry bulb temperature of 90 degrees F or less at design cooling conditions.

COP - COEFFICIENT OF PERFORMANCE: The ratio of the rate of net heat output (heating mode) or heat removal

(cooling mode) to the rate of total on-site energy input to the heat pump, expressed in consistent units and under designated rating conditions. (See **Net Heat Output, Net Heat Removal, Total On-Site Energy Input**.)

DAYLIGHTED ZONE:

- Under overhead glazing: The area under overhead glazing whose horizontal dimension, in each direction, is equal to the overhead glazing dimension in that direction plus either the floor to ceiling height or the dimension to a ceiling height opaque partition, or one-half the distance to adjacent overhead or vertical glazing, whichever is least.
- At vertical glazing: The area adjacent to vertical glazing which receives daylighting from the glazing. For purposes of this definition and unless more detailed daylighting analysis is provided, the daylighting zone depth is assumed to extend into the space a distance of 15 feet or to the nearest ceiling height opaque partition, whichever is less. The daylighting zone width is assumed to be the width of the window plus either two feet on each side (the distance to an opaque partition) or one-half the distance to adjacent overhead or vertical glazing, whichever is least.

DAYLIGHT SENSING CONTROL (DS): A device that automatically regulates the power input to electric lighting near the glazing to maintain the desired workplace illumination, thus taking advantage of direct or indirect sunlight.

DEADBAND: The temperature range in which no heating or cooling is used.

DESIGN COOLING CONDITIONS: The cooling outdoor design temperature from the 0.5 percent column for summer from the Puget Sound Chapter of ASHRAE publication "Recommended Outdoor Design Temperatures, Washington State, ASHRAE."

DESIGN HEATING CONDITIONS: The heating outdoor design temperature from the 0.6 percent column for winter from the Puget Sound Chapter of ASHRAE publication "Recommended Outdoor Design Temperatures, Washington State, ASHRAE."

DOOR AREA: Total area of door measured using the rough opening and including the door and frame.

DOOR: All operable opening areas, which are not glazing, in the building envelope including swinging and roll-up doors, fire doors, smoke vents and access hatches.

DWELLING UNIT: See the Washington State Building Code.

EER - ENERGY EFFICIENCY RATIO: The ratio of net equipment cooling capacity in Btu/h to total rate of electric input in watts under designated operating conditions.

ECONOMIZER, AIR: A ducting arrangement and automatic control system that allows a cooling supply fan system to supply outside air to reduce or eliminate the need for mechanical refrigeration during mild or cold weather.

ECONOMIZER, WATER: A system by which the supply air of a cooling system is cooled directly, indirectly, or both, by evaporation of water or by other appropriate fluid in

order to reduce or eliminate the need for mechanical refrigeration.

EFFICIENCY, HVAC SYSTEM: The ratio of useful energy (at the point of use) to the energy input for a designated time period, expressed in percent.

EMISSIVITY: The ability to absorb infrared radiation. A low emissivity implies a higher reflectance of infrared radiation.

ENERGY: The capacity for doing work; taking a number of forms which may be transformed from one into another, such as thermal (heat), mechanical (work), electrical and chemical; in customary units, measured in kilowatt-hours (Kwh) or British thermal units (Btu). (See **New energy**.)

ENERGY, RECOVERED: (See **Recovered energy**.)

EXTERIOR ENVELOPE: (See **Building envelope**.)

FACADE AREA: Vertical projected area including nonhorizontal roof area, overhangs, cornices, etc. measured in elevation in a vertical plane parallel to the plane of the building face.

FLOOR OVER UNCONDITIONED SPACE: A floor which separates a conditioned space from an unconditioned space which is buffered from exterior ambient conditions including vented crawl spaces and unconditioned basements or other similar spaces, or exposed to exterior ambient conditions including open parking garages and enclosed garages which are mechanically ventilated.

F-FACTOR: The perimeter heat loss factor expressed in $\text{Btu}/(\text{h}\cdot\text{ft}^2)\cdot^\circ\text{F}$.

F-VALUE: (See **F-Factor**.)

GLAZING: All areas, including the frames, in the shell of a conditioned space that let in natural light including windows, clerestories, skylights, sliding or swinging glass doors and glass block walls.

GLAZING AREA: Total area of the glazing measured using the rough opening, and including the glazing, sash, and frame. For doors where the daylight opening area is less than fifty percent of the door area, the glazing area is the daylight opening area. For all other doors, the glazing area is the door area.

GROSS CONDITIONED FLOOR AREA: The horizontal projection of that portion of interior space which is contained within exterior walls and which is conditioned directly or indirectly by an energy-using system, and which has an average height of five feet or greater, measured from the exterior faces.

GROSS EXTERIOR WALL AREA: The normal projection of the building envelope wall area bounding interior space which is conditioned by an energy-using system and which separates conditioned space from: Unconditioned space, or semi-heated space, or exterior ambient conditions or earth; includes opaque wall, vertical glazing and door areas. The gross area of walls consists of all opaque wall areas, including foundation walls, between floor spandrels, peripheral edges of floors, vertical glazing areas, and door areas, where such surfaces are exposed to exterior ambient conditions and enclose a conditioned space including

interstitial areas between two such spaces. (See **Below Grade Wall**.)

GROSS FLOOR AREA: The sum of the areas of the several floors of the building, including basements, cellars, mezzanine and intermediate floored tiers and penthouses of headroom height, measured from the exterior faces of exterior walls or from the center line of walls separating buildings, but excluding: Covered walkways, open roofed-over areas, porches and similar spaces, pipe trenches, exterior terraces or steps, chimneys, roof overhangs and similar features.

GROSS ROOF/CEILING AREA: A roof/ceiling assembly shall be considered as all components of the roof/ceiling envelope through which heat flows, thus creating a building transmission heat loss or gain, where such assembly is exposed to exterior ambient conditions and encloses a conditioned space. The assembly does not include those components that are separated from a heated and/or cooled space by a vented airspace. The gross area of a roof/ceiling assembly consists of the total interior surface of such assembly, including overhead glazing.

GUEST ROOM: See the Washington State Building Code.

HEAT: The form of energy that is transferred by virtue of a temperature difference.

HEAT STORAGE CAPACITY: The physical property of materials (mass) located inside the building envelope to absorb, store, and release heat.

HEATED SPACE (FULLY HEATED): An enclosed space within a building, including adjacent connected spaces separated by an un-insulated component (e.g., basements, utility rooms, garages, corridors), which is heated by a heating system whose output capacity is

- capable of maintaining a space dry-bulb temperature of 45 degrees F or greater at design heating conditions; or
- 8 $\text{Btu}/(\text{h}\cdot\text{ft}^2)$ or greater in Climate Zone 1 and 12 $\text{Btu}/(\text{h}\cdot\text{ft}^2)$ or greater in Climate Zone 2.

HEATED SPACE (SEMI-HEATED): An enclosed space within a building, including adjacent connected spaces separated by an un-insulated component (e.g., basements, utility rooms, garages, corridors), which is heated by a heating system

- whose output capacity is 3 $\text{Btu}/(\text{h}\cdot\text{ft}^2)$ or greater in Climate Zone 1 and 5 $\text{Btu}/(\text{h}\cdot\text{ft}^2)$ or greater in Climate Zone 2; and
- is not a Heated Space (Fully Heated).

HSPF - HEATING SEASON PERFORMANCE FACTOR: The total heating output (in Btu) of a heat pump during its normal annual usage period for heating divided by the total (watt hour) electric power input during the same period, as determined by test procedures consistent with the U.S. Department of Energy "Test Procedure for Central Air Conditioners, Including Heat Pumps" published in RS-30. When specified in Btu per watt hour an HSPF of 6.826 is equivalent to a COP of 2.0.

HUMIDISTAT: A regulatory device, actuated by changes in humidity, used for automatic control of relative humidity.

HVAC: Heating, ventilating and air conditioning.

HVAC SYSTEM COMPONENTS: HVAC system components provide, in one or more factory-assembled packages, means for chilling and/or heating water with controlled temperature for delivery to terminal units serving the conditioned spaces of the buildings. Types of HVAC system components include, but are not limited to, water chiller packages, reciprocating condensing units and water source (hydraulic) heat pumps. (See **HVAC system equipment**.)

HVAC SYSTEM EFFICIENCY: (See **Efficiency, HVAC system**.)

HVAC SYSTEM EQUIPMENT: HVAC system equipment provides, in one (single package) or more (split system) factory-assembled packages, means for air circulation, air cleaning, air cooling with controlled temperature and dehumidification; and optionally, either alone or in combination with a heating plant, the functions of heating and humidifying. The cooling function may be either electrically or heat operated and the refrigerant condenser may be air, water or evaporatively cooled. Where the equipment is provided in more than one package, the separate packages shall be designed by the manufacturer to be used together. The equipment may provide the heating function as a heat pump or by the use of electric elements. (The word "equipment" used without modifying adjective may, in accordance with common industry usage, apply either to HVAC system equipment or HVAC system components.)

INDIRECTLY CONDITIONED SPACE: An enclosed space within a building that is not a heated or cooled space, whose area weighted heat transfer coefficient to heated or cooled spaces exceeds that to the outdoors or to unconditioned spaces; or through which air from heated or cooled spaces is transferred at a rate exceeding three air changes per hour. Enclosed corridors between conditioned spaces shall be considered as indirectly conditioned space. (See **Heated Space, Cooled Space and Unconditioned Space**.)

INFILTRATION: The uncontrolled inward air leakage through cracks and interstices in any building element and around windows and doors of a building caused by the pressure effects of wind and/or the effect of differences in the indoor and outdoor air density.

INSULATION Baffle: A rigid material, resistant to wind driven moisture, the purpose of which is to allow air to flow freely into the attic or crawl space and to prevent insulation from blocking the ventilation of these spaces, or the loss of insulation. Example materials for this purpose are sheet metal, or wax impregnated cardboard.

INSULATION POSITION:

- a. **Exterior Insulation Position:** A wall having all or nearly all of its mass exposed to the room air with the insulation on the exterior of the mass.
- b. **Integral Insulation Position:** A wall having mass exposed to both room and outside air, with substantially equal amounts of mass on the inside and outside of the insulation layer.
- c. **Interior Insulation Position:** A wall not meeting either of the above definitions; particularly a wall

having most of its mass external to the insulation layer.

IPLV - INTEGRATED PART-LOAD VALUE: A single number figure of merit based on part-load EER or COP expressing part-load efficiency for air-conditioning and heat pump equipment on the basis of weighted operation at various load capacities for the equipment as specified in the Air Conditioning and Refrigeration Institute (ARI) and Cooling Tower Institute (CTI) procedures.

LUMINAIRE: A complete lighting unit consisting of a lamp or lamps together with the parts designed to distribute the light, to position and protect the lamps and to connect the lamps to the electric power supply.

MANUAL: Capable of being operated by personal intervention. (See **Automatic**.)

MICROCELL: A wireless communication facility consisting of an antenna that is either: (a) Four (4) feet in height and with an area of not more than five hundred eighty (580) square inches; or (b) if a tubular antenna, no more than four (4) inches in diameter and no more than six (6) feet in length; and the associated equipment cabinet that is six (6) feet or less in height and no more than forty-eight (48) square feet in floor area.

NFPA: National Fire Protection Association.

NFRC: National Fenestration Rating Council.

NET HEAT OUTPUT: The change in the total heat content of the air entering and leaving the equipment (not including supplementary heat and heat from boilers).

NET HEAT REMOVAL: The total difference in heat content of the air entering and leaving the equipment (without heat) or the difference in total heat content of the water or refrigerant entering and leaving the component.

NEW ENERGY: Energy, other than recovered energy, utilized for the purpose of heating or cooling. (See **Energy**.)

NOMINAL R-VALUE: The thermal resistance of insulation as specified by the manufacturer according to recognized trade and engineering standards.

NONRENEWABLE ENERGY SOURCES: All energy sources that are not renewable energy sources including natural gas, oil, coal, wood, liquified petroleum gas, steam, and any utility-supplied electricity.

NONRESIDENTIAL: All buildings and spaces in the Uniform Building Code (UBC) occupancies other than Group R.

OCCUPANCY: See the Washington State Uniform Building Code.

OCCUPANCY SENSOR: A device that detects occupants within an area, causing any combination of lighting, equipment or appliances to be turned on or shut off.

OPAQUE ENVELOPE AREAS: All exposed areas of a building envelope which enclose conditioned space, except openings for doors, glazing and building service systems.

OPEN BLOWN: Loose fill insulation pneumatically installed in an unconfined attic space.

OUTDOOR AIR (OUTSIDE AIR): Air taken from the outdoors and, therefore, not previously circulated through a building.

OVERHEAD GLAZING: A glazing surface that has a slope of less than sixty degrees from the horizontal plane.

PACKAGED TERMINAL AIR CONDITIONER: A factory-selected combination of heating and cooling components, assemblies or sections intended to serve a room or zone. (For the complete technical definition, see Standard RS-10.)

PERMEANCE (PERM): The ability of a material of specified thickness to transmit moisture in terms of amount of moisture transmitted per unit time for a specified area and differential pressure (grains per hour•ft²•inches of HG). Permeance may be measured using ASTM E-96-72 or other approved dry cup method as specified in RS-1.

PERSONAL WIRELESS SERVICE FACILITY: A Wireless Communication Facility (WCF), including a microcell, which is a facility for the transmission and/or reception of radio frequency signals and which may include antennas, equipment shelter or cabinet, transmission cables, a support structure to achieve the necessary elevation, and reception and/or transmission devices or antennas.

POOL COVER: A vapor-retardant cover which lies on or at the surface of the pool.

POWER: In connection with machines, the time rate of doing work. In connection with the transmission of energy of all types, the rate at which energy is transmitted; in customary units, it is measured in watts (W) or British Thermal Units per hour (Btu/h).

PROCESS ENERGY: Energy consumed in support of a manufacturing, industrial, or commercial process other than the maintenance of building comfort or amenities for building occupants.

RADIANT FLOOR: A floor assembly, on grade or below, containing heated pipes, ducts, or electric heating cables that constitute a floor or portion thereof for complete or partial heating of the structure.

READILY ACCESSIBLE: See the Washington State Mechanical Code.

RECOOLING: The removal of heat by sensible cooling of the supply air (directly or indirectly) that has been previously heated above the temperature to which the air is to be supplied to the conditioned space for proper control of the temperature of that space.

RECOVERED ENERGY: Energy utilized which would otherwise be wasted (i.e., not contribute to a desired end use) from an energy utilization system.

REHEAT: The application of sensible heat to supply air that has been previously cooled below the temperature of the conditioned space by either mechanical refrigeration or the introduction of outdoor air to provide cooling.

RENEWABLE ENERGY SOURCES: Renewable energy sources (excluding minerals) derived from: (1) incoming solar radiation, including but not limited to, natural daylighting and photosynthetic processes; (2) energy sources resulting from wind, waves and tides, lake or pond thermal differences; and (3) energy derived from the internal heat of the earth, including nocturnal thermal exchanges.

RESET: Adjustment of the set point of a control instrument to a higher or lower value automatically or manually to conserve energy.

ROOF/CEILING ASSEMBLY: (See **Gross Roof/Ceiling Area**.)

SEER - SEASONAL ENERGY EFFICIENCY RATIO: The total cooling output of an air conditioner during its normal annual usage period, in Btu's, divided by the total electric energy input in watt-hours, during the same period, as determined by 10 CFR, Part 430.

SEMI-HEATED SPACE: Sub-category of **Heated Space**. (See **Heated Space**.)

SEQUENCE: A consecutive series of operations.

SERVICE SYSTEMS: All energy-using systems in a building that are operated to provide services for the occupants or processes housed therein, including HVAC, service water heating, illumination, transportation, cooking or food preparation, laundering or similar functions.

SERVICE WATER HEATING: Supply of hot water for domestic or commercial purposes other than comfort heating.

SHADED: Glazed area which is externally protected from direct solar radiation by use of devices permanently affixed to the structure or by an adjacent building, topographical feature, or vegetation.

SHADING COEFFICIENT: The ratio of solar heat gain occurring through non-opaque portions of the glazing, with or without integral shading devices, to the solar heat gain occurring through an equivalent area of unshaded, 1/8-inch thick, clear, double-strength glass.

Note: Heat gains to be compared under the same conditions. See Chapter 26 of Standard RS-27, listed in Chapter 17 of this Code.

SHALL: Denotes a mandatory Code requirement.

SKYLIGHT: (See **Overhead Glazing**.)

SLAB-BELOW-GRADE: Any portion of a slab floor in contact with the ground which is more than twenty-four inches below the final elevation of the nearest exterior grade.

SLAB-ON-GRADE, EXTERIOR: Any portion of a slab floor in contact with the ground which is less than or equal to twenty-four inches below the final elevation of the nearest exterior grade.

SOLAR ENERGY SOURCE: Source of natural daylighting and of thermal, chemical or electrical energy derived directly from conversion of incident solar radiation.

SOLAR HEAT GAIN COEFFICIENT (SHGC): The ratio of the solar heat gain entering the space through the glazing product to the incident solar radiation. Solar heat gain includes directly transmitted solar heat and absorbed

solar radiation which is then reradiated, conducted, or convected into the space.

SPLIT SYSTEM: Any heat pump or air conditioning unit which is provided in more than one assembly requiring refrigeration piping installed in the field.

STANDARD FRAMING: All framing practices not defined as "intermediate" or "advanced" shall be considered standard. (See **Advanced framed ceiling**, **Advanced framed walls**, **Intermediate framed wall**.)

SUBSTANTIAL CONTACT: A condition where adjacent building materials are placed in a manner that proximal surfaces are contiguous, being installed and supported as to eliminate voids between materials, without compressing or degrading the thermal performance of either product.

SYSTEM: A combination of central or terminal equipment or components and/or controls, accessories, interconnecting means, and terminal devices by which energy is transformed so as to perform a specific function, such as HVAC, service water heating or illumination.

TAPERING: Installation of a reduced level of ceiling insulation at the eaves, due to reduced clearance.

THERMAL BY-PASS: An area where the envelope surrounding the conditioned space is breached, or where an ineffective application compromises the performance of a thermal or infiltration barrier, increasing the structure's energy consumption by exposing finished surfaces to ambient conditions and additional heat transfer.

THERMAL CONDUCTANCE (C): Time rate of heat flow through a body (frequently per unit area) from one of its bounding surfaces to the other for a unit temperature difference between the two surfaces, under steady conditions ($\text{Btu}/\text{h}\cdot\text{ft}^2\cdot^\circ\text{F}$).

THERMAL RESISTANCE (R): The reciprocal of thermal conductance ($\text{h}\cdot\text{ft}^2\cdot^\circ\text{F}/\text{Btu}$).

THERMAL TRANSMITTANCE (U): The coefficient of heat transmission (air to air). It is the time rate of heat flow per unit area and unit temperature difference between the warm side and cold side air films ($\text{Btu}/\text{h}\cdot\text{ft}^2\cdot^\circ\text{F}$).

THERMAL TRANSMITTANCE, OVERALL (U_o): The overall (average) heat transmission of a gross area of the exterior building envelope ($\text{Btu}/\text{h}\cdot\text{ft}^2\cdot^\circ\text{F}$). The U_o -factor applies to the combined effect of the time rate of heat flows through the various parallel paths, such as glazing, doors and opaque construction areas, comprising the gross area of one or more exterior building components, such as walls, floors or roof/ceiling.

THERMOSTAT: An automatic control device actuated by temperature and designed to be responsive to temperature.

TOTAL ON-SITE ENERGY INPUT: The combination of all the energy inputs to all elements and accessories as included in the equipment components, including but not limited to, compressor(s), compressor sump heater(s), circulating pump(s), purge devices, fan(s), and the HVAC system component control circuit.

TRANSMISSION COEFFICIENT: The ratio of the solar heat gain through a glazing system to that of an unshaded

single pane of double strength window glass under the same set of conditions.

U-FACTOR: (See **Thermal Transmittance**.)

U-VALUE: (See **U-Factor**.)

UNCONDITIONED SPACE: Space within a building that is not a conditioned space. (See **Conditioned Space**.)

UNIFORM BUILDING CODE: The Washington State Uniform Building Code as modified by the Washington State Building Code Council.

UNIFORM MECHANICAL CODE: The Washington State Uniform Mechanical Code as modified by the Washington State Building Code Council.

UNIFORM PLUMBING CODE (UPC): The Washington State Uniform Plumbing Code as modified by the Washington State Building Code Council.

UNITARY COOLING AND HEATING EQUIPMENT: One or more factory-made assemblies which include an evaporator or cooling coil, a compressor and condenser combination, and may include a heating function as well. Where such equipment is provided in more than one assembly, the separate assemblies shall be designed to be used together.

UNITARY HEAT PUMP: One or more factory-made assemblies which include an indoor conditioning coil, compressor(s) and outdoor coil or refrigerant-to-water heat exchanger, including means to provide both heating and cooling functions. When such equipment is provided in more than one assembly, the separate assemblies shall be designed to be used together.

VAPOR RETARDER: A layer of low moisture transmissivity material (not more than 1.0 perm dry cup) placed over the warm side (in winter) of insulation, over the exterior of below grade walls, and under floors as ground cover to limit the transport of water and water vapor through exterior walls, ceilings, and floors. Vapor retarding paint, listed for this application, also meets this definition.

VAULTED CEILINGS: All ceilings where enclosed joist or rafter space is formed by ceilings applied directly to the underside of roof joists or rafters.

VENTILATION: The process of supplying or removing air by natural or mechanical means to or from any space. Such air may or may not have been conditioned.

VENTILATION AIR: That portion of supply air which comes from outside (outdoors) plus any recirculated air that has been treated to maintain the desired quality of air within a designated space.

VERTICAL GLAZING: A glazing surface that has a slope of sixty degrees or greater from the horizontal plane.

WALLS (EXTERIOR): Any member or group of members which defines the exterior boundaries or courts of a building and which have a slope of sixty degrees or greater with the horizontal plane, and separates conditioned from unconditioned space. Band joists between floors are to be considered a part of exterior walls.

ZONE: A space or group of spaces within a building with heating and/or cooling requirements sufficiently similar so that comfort conditions can be maintained throughout by a single controlling device. Each dwelling unit in residential buildings shall be considered a single zone.

AMENDATORY SECTION (Amending WSR 93-21-052, filed 10/18/93, effective 4/1/94)

WAC 51-11-1312 Glazing and doors.

1312.1 Standard Procedure for Determination of Glazing and Door U-Factors: U-Factors for glazing and doors shall be determined, certified and labeled in accordance with Standard RS-31 by a certified independent agency licensed by the National Fenestration Rating Council (NFRC). Compliance shall be based on the Residential or the Nonresidential Model Size ((AA or BB)). Product samples used for U-factor determinations shall be production line units or representative of units as purchased by the consumer or contractor. Unlabeled glazing and doors shall be assigned the default U-factor in Section 2006.

1312.2 Solar Heat Gain Coefficient and Shading Coefficient: Solar Heat Gain Coefficient (SHGC), shall be determined, certified and labelled in accordance with the National Fenestration Rating Council (NFRC) Standard by a certified, independent agency, licensed by the NFRC.

EXCEPTION: Shading coefficients (SC) shall be an acceptable alternate for compliance with solar heat gain coefficient requirements. Shading coefficients for glazing shall be taken from Chapter ((27)) 29 of RS-27 or from the manufacturer's test data.

AMENDATORY SECTION (Amending WSR 93-21-052, filed 10/18/93, effective 4/1/94)

WAC 51-11-1323 Glazing. Glazing shall comply with Section 1312 and Tables 13-1 or 13-2. All glazing shall be, at a minimum, double glazing.

EXCEPTIONS:

1. Vertical glazing located on the street level story of a retail occupancy provided the glazing is double-glazed with a minimum 1/2 inch airspace and does not exceed 75 percent of the gross exterior wall area of the street level story which does not exceed 20 feet in height. When this exception is utilized, separate calculations shall be performed for these sections of the building envelope and these values shall not be averaged with any others for compliance purposes. The 75 percent area may be exceeded on the street level, if the additional glass area is provided from allowances from other areas of the building.
2. Single glazing for ornamental, security, or architectural purposes shall be included in the percentage of the total glazing area, U-factor calculation and SHGC as allowed in the Tables 13-1 or 13-2. The maximum area allowed for the total of all single glazing is one percent of the gross exterior wall floor area.

1323.1 Area: The percentage of total glazing (vertical and overhead) area relative to the gross exterior wall area shall not be greater than the appropriate value from Tables 13-1 or 13-2 for the vertical glazing U-factor, overhead glazing U-factor and solar heat gain coefficient selected.

1323.2 U-Factor: The area-weighted average U-factor of vertical glazing shall not be greater than that specified in Tables 13-1 or 13-2 for the appropriate area and solar heat gain coefficient. The area-weighted average U-factor of overhead glazing shall not be greater than that specified in

Tables 13-1 or 13-2 for the appropriate area and solar heat gain coefficient. U-factors for glazing shall be determined in accordance with Section 1312.

1323.3 Solar Heat Gain Coefficient: The area-weighted average solar heat gain coefficient of ~~((vertical))~~ all glazing shall not be greater than that specified in Tables 13-1 or 13-2 for the appropriate area and U-factor. ~~((The area-weighted average solar heat gain coefficient of overhead glazing shall not be greater than that specified in Tables 13-1 or 13-2 for the appropriate area and U-factor.))~~

AMENDATORY SECTION (Amending WSR 93-21-052, filed 10/18/93, effective 4/1/94)

WAC 51-11-1331 General. Buildings or structures whose design heat loss rate (UA_p) and solar heat gain coefficient ~~((SHGC_p))~~ rate ($SHGC \cdot A_p$) are less than or equal to the target heat loss rate (UA_t) and solar heat gain coefficient ~~((SHGC_t))~~ rate ($SHGC \cdot A_t$) shall be considered in compliance with this section. The stated U-factor, F-factor or allowable area of any component assembly, listed in Tables 13-1 or 13-2, such as roof/ceiling, opaque wall, opaque door, glazing, floor over conditioned space, slab on grade floor, radiant floor or opaque floor may be increased and the U-factor or F-factor for other components decreased, provided that the total heat gain or loss for the entire building envelope does not exceed the total resulting from compliance to the U-factors, F-factors or allowable areas specified in this section.

EXCEPTION: For buildings or structures utilizing the other space heat type (including heat pumps and VAV) compliance path, for the gross opaque wall, opaque door and glazing (vertical and overhead) area only, compliance may also be shown using the ENVSTD diskette version 2.1 or later of Standard RS-9, or an approved alternative, with the following additional requirements:

1. Only the Exterior Wall Requirements portion of ~~((RS-32))~~ the ENVSTD computer program may be used under this exception.
2. Overhead glazing shall be added to vertical glazing, and shall be input as 1/4 north, 1/4 east, 1/4 south and 1/4 west facing.
3. Lighting loads shall be determined according to Table 15-1.
4. Equipment loads shall be determined from Table 3-1 of Standard RS-29.

AMENDATORY SECTION (Amending WSR 93-21-052, filed 10/18/93, effective 4/1/94)

WAC 51-11-1334 Solar heat gain coefficient rate calculations. Solar heat gain coefficient shall comply with Section 1323.3. The target SHGCA, and the proposed SHGCA_p shall be calculated using Equation 13-3 and 13-4 and the corresponding areas and SHGCs from Table 13-1 or 13-2.

**EQUATION 13-1:
Target UA**

$$UA_t = U_{rat}A_{rat} + U_{ograt}A_{ograt} + U_{ort}A_{ort} + U_{ogort}A_{ogort} + U_{wt}A_{wt} + U_{vgt}A_{vgt} + U_{dt}A_{dt} + U_{ft}A_{ft} + F_{st}P_{st} + U_{bgwt}A_{bgwt}$$

UA_t = The target combined specific heat transfer of the gross roof/ceiling assembly, exterior wall and floor area.

Where:

U_{rat} = The thermal transmittance value for roofs over attics found in Table 13-1 or 13-2.

U_{ograt} = The thermal transmittance for overhead glazing found in Table 13-1 or 13-2 which corresponds to the proposed total glazing area as a percent of gross exterior wall area.

U_{ort} = The thermal transmittance value for other roofs found in Table 13-1 or 13-2.

U_{ogort} = The thermal transmittance for overhead glazing found in Table 13-1 or 13-2 which corresponds to the proposed total glazing area as a percent of gross exterior wall area.

U_{wt} = The thermal transmittance value for opaque walls found in Table 13-1 or 13-2.

U_{vgt} = The thermal transmittance value for vertical glazing found in Table 13-1 or 13-2 which corresponds to the proposed total glazing area as a percent of gross exterior wall area.

U_{dt} = The thermal transmittance value for opaque doors found in Table 13-1 or 13-2.

U_{ft} = The thermal transmittance value for floors over unconditioned space found in Table 13-1 or 13-2.

F_{st} = The F-factor for slab-on-grade and radiant slab floors found in Table 13-1 or 13-2.

U_{bgwt} = The thermal transmittance value for opaque walls found in Table 13-1 or 13-2.

A_{dt} = The proposed opaque door area, A_d .

A_{ft} = The proposed floor over unconditioned space area, A_f .

P_{st} = The proposed lineal feet of slab-on-grade and radiant slab floor perimeter, P_g .

A_{bgwt} = The proposed below grade wall area, A_{bgw}
and;

if the total amount of glazing area as a percent of gross exterior wall area does not exceed the maximum allowed in Table 13-1 or 13-2:

- A_{rat} = The proposed roof over attic area, A_{ra} .
- A_{ograt} = The proposed overhead glazing area in roofs over attics, A_{ogra} .
- A_{ort} = The proposed other roof area, A_{or} .
- A_{ogort} = The proposed overhead glazing area in other roofs, A_{ogor} .
- A_{wt} = The proposed opaque above grade wall area, A_w .
- A_{vgt} = The proposed vertical glazing area, A_{vg} .

or;

if the total amount of glazing area as a percent of gross exterior wall area exceeds the maximum allowed in Table 13-1 or 13-2:

- A_{rat} = The greater of:
the proposed roof over attic area, and
the gross roof over attic area minus A_{ograt} .
- A_{ograt} = The lesser of:
proposed overhead glazing area in roofs over attics, and
the maximum allowed glazing area from Table 13-1 or 13-2.
- A_{ort} = The greater of:
the proposed other roof area, and
the gross other roof area minus A_{ogort} .
- A_{ogort} = The lesser of:
the proposed overhead glazing area in other roofs, and
the maximum allowed glazing area from Table 13-1 or 13-2 minus A_{ograt} .
- A_{wt} = The greater of:
proposed opaque above grade wall area, and
the gross exterior above grade wall area minus A_{dt} minus A_{vgt} .
- A_{vgt} = The lesser of:
the proposed vertical glazing area, and
the maximum allowed glazing area from Table 13-1 or 13-2 minus A_{ograt} minus A_{ogort} .

EQUATION 13-2

Proposed UA_p

$$UA_p = U_{ra}A_{ra} + U_{or}A_{or} + U_{og}A_{og} + U_wA_w + U_dA_d + U_{vg}A_{vg} + U_fA_f + F_sP_s + U_{bgw}A_{bgw}$$

Where:

- UA_p = The combined proposed specific heat transfer of the gross exterior wall, floor and roof/ceiling assembly area.
- U_{ra} = The thermal transmittance of the roof over attic area.
 A_{ra} = Opaque roof over attic area.
- U_{or} = The thermal transmittance of the other roof area.
 A_{or} = Opaque other roof area.
- U_{og} = The thermal transmittance for the overhead glazing
 A_{og} = Overhead glazing area.
- U_w = The thermal transmittance of the opaque wall area.
 A_w = Opaque above grade wall area (not including opaque doors).
- U_{vg} = The thermal transmittance of the vertical glazing area.
 A_{vg} = Vertical glazing area.
- U_d = The thermal transmittance value of the opaque door area.
 A_d = Opaque door area.
- U_f = The thermal transmittance of the floor over unconditioned space area.
 A_f = Floor area over unconditioned space.
- F_s = Slab-on-grade or radiant floor component F-factor.
 P_s = Lineal feet of slab-on-grade or radiant floor perimeter.
- U_{bgw} = The thermal transmittance value of the below grade wall area.
 A_{bgw} = Below grade wall area as defined in Tables 13-1 or 13-2.

NOTE: Where more than one type of wall, window, roof/ceiling, door and skylight is used, the U and A terms for those items shall be expanded into sub-elements as:

$$U_{w1}A_{w1} + U_{w2}A_{w2} + U_{w3}A_{w3} + \dots \text{etc.}$$

EQUATION 13-3:**Target SHGCA_t**

$$\text{SHGCA}_t = \text{SHGC}_t (A_{\text{ograt}} + A_{\text{ogort}} + A_{\text{vgt}})$$

Where:

SHGCA_t = The target combined specific heat gain of the target glazing area.

SHGC_t = The solar heat gain coefficient for glazing found in Table 13-1 or 13-2 which corresponds to the proposed total glazing area as a percent of gross exterior wall area, and

A_{ograt} , A_{ogort} , and A_{vgt} are defined under Equation 13-1.

EQUATION 13-4:**Proposed SHGCA_p**

$$\text{SHGCA}_p = \text{SHGC}_{\text{og}} A_{\text{og}} + \text{SHGC}_{\text{vg}} A_{\text{vg}}$$

Where:

SHGCA_p = The combined proposed specific heat gain of the proposed glazing area.

SHGC_{og} = The solar heat gain coefficient of the overhead glazing.

A_{og} = The overhead glazing area.

SHGC_{vg} = The solar heat gain coefficient of the vertical glazing.

A_{vg} = The vertical glazing area.

TABLE 13-1
BUILDING ENVELOPE REQUIREMENTS FOR CLIMATE ZONE 1
MINIMUM INSULATION R-VALUES OR MAXIMUM COMPONENT U-FACTORS FOR ZONE 1

Building Components						
Space Heat Type	Components					
	Roofs Over Attic	All Other Roofs	Opaque Walls ^{1,2}	Opaque Doors	Floor Over Uncond Space	Slab On Grade ⁵
1. Electric resistance heat	R-38 or U-0.031	R-30 or U-0.034	R-19 or U-0.062 ³	U-0.60	R-30 or U-0.029	R-10 or F-0.54
2. All others including Heat pumps and VAV	R-30 or U-0.036	R-21 or U-0.050	R-11 or U-0.14	U-0.60	R-19 or U-0.056	R-10 or F-0.54

MAXIMUM GLAZING AREAS AND U-FACTORS AND MAXIMUM GLAZING SOLAR HEAT GAIN COEFFICIENTS FOR ZONE 1

Glazing												
Maximum Glazing Area as % of Wall	0% to 15%			>15% to 20%			>20% to 30%			>30% to 40%		
	Maximum U-Factor		Max. SHGC ⁴	Maximum U-Factor		Max. SHGC ⁴	Maximum U-Factor		Max. SHGC ⁴	Maximum U-Factor		Max. SHGC ⁴
	VG	OG		VG	OG		VG	OG		VG	OG	
1. Electric resistance heat	0.40	0.80	1.0	0.40	0.80	1.0	PRESCRIPTIVE PATH NOT ALLOWED					
2. All others including Heat pumps and VAV	0.90	1.45	1.0	0.75	1.40	1.0	0.60	1.30	0.65	0.50	1.25	0.45

Footnotes

- 1. Below Grade Walls:** Below grade walls shall be insulated either on the interior or the exterior. Below grade walls insulated on the exterior shall use a minimum of R-10 insulation. Below grade walls insulated on the interior shall use opaque wall values. No insulation is required for those portions of below grade walls and footings that are more than 10 feet below grade. Below grade walls, however, shall not be included in the gross exterior wall area unless insulated to the levels given above.
- 2. Concrete Masonry Walls:** If the area weighted heat capacity of the total opaque above grade wall is a minimum of 9.0 Btu/ft² • °F, then the U-factor may be increased to 0.19 for interior insulation and 0.25 for integral and exterior insulation for insulation position as defined in Chapter 12. Individual walls with heat capacities less than 9.0 Btu/ft² • °F and below grade walls shall meet opaque wall requirements listed above. Glazing shall comply with the following:

Maximum Glazing Area as % of Wall	0 to 10 %			>10 to 15 %			>15% to 20 %			>20% to 25 %		
	Maximum U-Factor		Max. SHGC ⁴	Maximum U-Factor		Max. SHGC ⁴	Maximum U-Factor		Max. SHGC ⁴	Maximum U-Factor		Max. SHGC ⁴
	VG	OG		VG	OG		VG	OG		VG	OG	
1. Electric resistance heat	0.40	0.80	1.0	0.40	0.80	1.0	0.40	0.80	1.0	NOT ALLOWED		
2. All others including Heat pumps and VAV	0.90	1.45	1.0	0.75	1.40	1.0	0.65	1.30	0.80	0.60	1.30	0.65

- 3. Metal Stud Walls:** For metal stud construction U-0.11.
- 4. SHGC (Solar Heat Gain Coefficient per Section 1312.2):** May substitute Maximum Shading Coefficient (SC) for SHGC (See Section 1210 for definition of Shading Coefficient).
- 5. Radiant Floors:** Where insulation is required under the entire slab, radiant floors shall use a minimum of R-10 insulation or F-0.55 maximum. Where insulation is not required under the entire slab, radiant floors shall use R-10 perimeter insulation according to Section 1311.6 or F-0.78 maximum.

PERMANENT

**TABLE 13-1
BUILDING ENVELOPE REQUIREMENTS
FOR CLIMATE ZONE 1
MINIMUM INSULATION R-VALUES OR
MAXIMUM COMPONENT U-FACTORS FOR ZONE 1**

Building Components						
Space Heat Type	Components					
	Roofs Over Attic	All Other Roofs	Opaque Walls ^{1,2}	Opaque Doors	Floor Over Uncond Space	Slab On Grade ⁵
1. Electric resistance heat	R-38 or U=0.031	R-30 or U=0.034	R-19 or U=0.062 ³	U=0.60	R-30 or U=0.029	R-10 or F=0.54
2. All others including Heat pumps and VAV	R-30 or U=0.036	R-21 or U=0.050	R-11 or U=0.14	U=0.60	R-19 or U=0.056	R-10 or F=0.54

**MAXIMUM GLAZING AREAS AND U-FACTORS AND
MAXIMUM GLAZING SOLAR HEAT GAIN COEFFICIENTS
FOR ZONE 1**

Maximum Glazing Area as % of Wall	0% to 15%		>15% to 20%		>20% to 30%		>30% to 40%					
	Maximum U-Factor		Max. SHGC ⁴		Maximum U-Factor		Max. SHGC ⁴					
	VG	OG	VG	OG	VG	OG	VG	OG				
1. Electric resistance heat	0.40	0.80	1.0	0.40	0.80	1.0	PRESCRIPTIVE PATH NOT ALLOWED					
2. All others including Heat pumps and VAV	0.90	1.45	1.0	0.75	1.40	1.0	0.60	1.30	0.65	0.50	1.25	0.45

Footnotes

1. Below Grade Walls:

When complying by the prescriptive approach, Section 1322:

- a) walls insulated on the interior shall use opaque wall values,
- b) walls insulated on the exterior shall use a minimum of R-10 insulation,
- c) those portions of below grade walls and footings that are more than 10 feet below grade, and not included in the gross exterior wall area, may be left uninsulated.

When complying by the component performance approach, Section 1331:

- a) walls insulated on the interior shall use the opaque wall values when determining U_{gross} ,
- b) walls insulated on the exterior shall use a target U-factor of $U=0.070$ for U_{gross} ,
- c) those portions of below grade walls and footings that are more than 10 feet below grade, and not included in the gross exterior wall area, need not be included when determining A_{gross} and A_{net} .

- 2. Concrete Masonry Walls:** If the area weighted heat capacity of the total opaque above grade wall is a minimum of $9.0 \text{ Btu/ft}^2 \cdot ^\circ\text{F}$, then the U-factor may be increased to 0.19 for interior insulation and 0.25 for integral and exterior insulation for insulation position as defined in Chapter 12. Individual walls with heat capacities less than $9.0 \text{ Btu/ft}^2 \cdot ^\circ\text{F}$ and below grade walls shall meet opaque wall requirements listed above. Glazing shall comply with the following:

Maximum Glazing Area as % of Wall	0 to 10 %			> 10 to 15 %			> 15% to 20 %			> 20% to 25 %		
	Maximum U-Factor		Max. SHGC ⁴	Maximum U-Factor		Max. SHGC ⁴	Maximum U-Factor		Max. SHGC ⁴	Maximum U-Factor		Max. SHGC ⁴
	VG	OG		VG	OG		VG	OG		VG	OG	
1. Electric resistance heat	0.40	0.80	1.0	0.40	0.80	1.0	0.40	0.80	1.0	NOT ALLOWED		
2. All others including Heat pumps and VAV	0.90	1.45	1.0	0.75	1.40	1.0	0.65	1.30	0.80	0.60	1.30	0.65

- 3. Metal Stud Walls:** For metal stud construction $U=0.11$.

- 4. SHGC (Solar Heat Gain Coefficient per Section 1312.2):** May substitute Maximum Shading Coefficient (SC) for SHGC (See Section 1210 for definition of Shading Coefficient).

- 5. Radiant Floors:** Where insulation is required under the entire slab, radiant floors shall use a minimum of R-10 insulation or $F=0.55$ maximum. Where insulation is not required under the entire slab, radiant floors shall use R-10 perimeter insulation according to Section 1311.6 or $F=0.78$ maximum.

PERMANENT

**TABLE 13-2
BUILDING ENVELOPE REQUIREMENTS FOR CLIMATE ZONE 2
MINIMUM INSULATION R-VALUES OR MAXIMUM COMPONENT U-FACTORS FOR ZONE 2**

Building Components						
Space Heat Type	Components					
	Roofs Over Attic	All Other Roofs	Opaque Walls ^{1,2}	Opaque Doors	Floor Over Uncond Space	Slab On Grade
1. Electric-resistance heat	R-38 or U-0.031	R-30 or U-0.034	R-24 or U-0.044 ³	U-0.60	R-30 or U-0.029	R-10 or F-0.54
2. All others including Heat pumps and VAV	R-38 or U-0.031	R-25 or U-0.040	R-19 or U-0.11	U-0.60	R-21 or U-0.047	R-10 or F-0.54

MAXIMUM GLAZING AREAS AND U-FACTORS AND MAXIMUM GLAZING SOLAR HEAT GAIN COEFFICIENTS FOR ZONE 2

Glazing

Maximum Glazing Area as % of Wall	0% to 15%		>15% to 20%		>20% to 25%		>25% to 30%					
	Maximum U-Factor		Maximum U-Factor		Maximum U-Factor		Maximum U-Factor					
	VG	OG	VG	OG	VG	OG	VG	OG				
1. Electric-resistance heat	0.40	0.80	1.0	0.40	0.80	1.0	PRESCRIPTIVE PATH NOT ALLOWED					
2. All others including Heat pumps and VAV	0.90	1.45	1.0	0.75	1.40	1.0	0.60	1.30	0.60	0.50	1.25	0.50

Footnotes

- Below Grade Walls:** Below grade walls shall be insulated either on the interior or the exterior. Below grade walls insulated on the exterior shall use a minimum of R-12 insulation. Below grade walls insulated on the interior shall use opaque wall values. No insulation is required for those portions of below grade walls and footings that are more than 10 feet below grade. Below grade walls, however, shall not be included in the gross exterior wall area unless insulated to the levels given above.
- Concrete Masonry Walls:** If the area-weighted heat capacity of the total opaque above-grade wall is a minimum of 9.0 Btu/ft² • °F, then the U-factor may be increased to 0.19 for interior insulation and 0.25 for integral and exterior insulation for insulation position as defined in Chapter 12. Individual walls with heat capacities less than 9.0 Btu/ft² • °F and below grade walls shall meet opaque wall requirements listed above. Glazing shall comply with the following:

Maximum Glazing Area as % of Wall	0 to 5%			>5 to 7%			>7% to 10%			>10% to 15%		
	Maximum U-Factor			Maximum U-Factor			Maximum U-Factor			Maximum U-Factor		
	VG	OG		VG	OG		VG	OG		VG	OG	
1. Electric-resistance heat	0.40	0.80	1.0	0.40	0.80	1.0	0.40	0.80	1.0	NOT ALLOWED		
2. All others including Heat pumps and VAV	0.90	1.45	1.0	0.60	1.30	0.70	0.50	1.25	0.50	0.40	0.80	0.40

- Metal Stud Walls:** For metal stud construction U-0.10.
- SHGC (Solar Heat Gain Coefficient per Section 1312.2):** May substitute Maximum Shading Coefficient (SC) for SHGC (See Section 1210 for definition of Shading Coefficient).
- Radiant Floors:** Where insulation is required under the entire slab, radiant floors shall use a minimum of R-10 insulation or F-0.55 maximum. Where insulation is not required under the entire slab, radiant floors shall use R-10 perimeter insulation according to Section 1311.6 or F-0.78 maximum.

PERMANENT

**TABLE 13-2
BUILDING ENVELOPE REQUIREMENTS
FOR CLIMATE ZONE 2**

**MINIMUM INSULATION R-VALUES OR
MAXIMUM COMPONENT U-FACTORS FOR ZONE 2**

Building Components

Space Heat Type	Components					
	Roofs Over Attic	All Other Roofs	Opaque Walls ^{1,2}	Opaque Doors	Floor Over Uncond Space	Slab On Grade
1. Electric resistance heat	R-38 or U=0.031	R-30 or U=0.034	R-24 or U=0.044 ³	U=0.60	R-30 or U=0.029	R-10 or F=0.54
2. All others including Heat pumps and VAV	R-38 or U=0.031	R-25 or U=0.040	R-19 or U=0.11	U=0.60	R-21 or U=0.047	R-10 or F=0.54

**MAXIMUM GLAZING AREAS AND U-FACTORS AND
MAXIMUM GLAZING SOLAR HEAT GAIN COEFFICIENTS
FOR ZONE 2**

Glazing

Maximum Glazing Area as % of Wall	0% to 15%		> 15% to 20%		> 20% to 25%		> 25% to 30%					
	Maximum U-Factor		Max. SHGC ⁴		Maximum U-Factor		Max. SHGC ⁴		Maximum U-Factor		Max. SHGC ⁴	
	VG	OG	VG	OG	VG	OG	VG	OG	VG	OG		
1. Electric resistance heat	0.40	0.80	1.0	0.40	0.80	1.0	PRESCRIPTIVE PATH NOT ALLOWED					
2. All others including Heat pumps and VAV	0.90	1.45	1.0	0.75	1.40	1.0	0.60	1.30	0.60	0.50	1.25	0.50

Footnotes

1. Below Grade Walls:

When complying by the prescriptive approach, Section 1322:

- a) walls insulated on the interior shall use opaque wall values,
- b) walls insulated on the exterior shall use a minimum of R-12 insulation,
- c) those portions of below grade walls and footings that are more than 10 feet below grade, and not included in the gross exterior wall area, may be left uninsulated.

When complying by the component performance approach, Section 1331:

- a) walls insulated on the interior shall use the opaque wall values when determining U_{bgt} ,
- b) walls insulated on the exterior shall use a target U-factor of $U=0.061$ for U_{bgt} ,
- c) those portions of below grade walls and footings that are more than 10 feet below grade, and not included in the gross exterior wall area, need not be included when determining A_{bgt} and A_{bgt} .

- 2. Concrete Masonry Walls:** If the area weighted heat capacity of the total opaque above grade wall is a minimum of $9.0 \text{ Btu/ft}^2 \cdot \text{°F}$, then the U-factor may be increased to 0.19 for interior insulation and 0.25 for integral and exterior insulation for insulation position as defined in Chapter 12. Individual walls with heat capacities less than $9.0 \text{ Btu/ft}^2 \cdot \text{°F}$ and below grade walls shall meet opaque wall requirements listed above. Glazing shall comply with the following:

Maximum Glazing Area as % of Wall	0 to 5 %		> 5 to 7 %		> 7% to 10 %		> 10% to 15%					
	Maximum U-Factor		Max. SHGC ⁴		Maximum U-Factor		Max. SHGC ⁴		Maximum U-Factor		Max. SHGC ⁴	
	VG	OG	VG	OG	VG	OG	VG	OG	VG	OG		
1. Electric resistance heat	0.40	0.80	1.0	0.40	0.80	1.0	0.40	0.80	1.0	NOT ALLOWED		
2. All others including Heat pumps and VAV	0.90	1.45	1.0	0.60	1.30	0.70	0.50	1.25	0.50	0.40	0.80	0.40

- 3. Metal Stud Walls:** For metal stud construction $U=0.10$.

- 4. SHGC (Solar Heat Gain Coefficient per Section 1312.2):** May substitute Maximum Shading Coefficient (SC) for SHGC (See Section 1210 for definition of Shading Coefficient).

- 5. Radiant Floors:** Where insulation is required under the entire slab, radiant floors shall use a minimum of R-10 insulation or $F=0.55$ maximum. Where insulation is not required under the entire slab, radiant floors shall use R-10 perimeter insulation according to Section 1311.6 or $F=0.78$ maximum.

PERMANENT

Reviser's note: RCW 34.05.395 requires the use of underlining and deletion marks to indicate amendments to existing rules. The rule published above varies from its predecessor in certain respects not indicated by the use of these markings.

AMENDATORY SECTION (Amending WSR 93-21-052, filed 10/18/93, effective 4/1/94)

WAC 51-11-1411 HVAC equipment performance requirements.

1411.1 General: Equipment shall have a minimum performance at the specified rating conditions not less than the values shown in Tables 14-1 through 14-3.

1411.2 Rating Conditions: Cooling equipment shall be rated at ARI test conditions and procedures when available.

	Energy Factor (EF)	Combined Annual Efficiency (CAE)
< 50 gallon storage	0.58	0.71
50 to 70 gallon storage	0.57	0.71
> 70 gallon storage	0.55	0.70

1411.4 Packaged Electric Heating and Cooling Equipment: Packaged electric equipment providing both heating and cooling with a total cooling capacity greater than 20,000 Btu/h shall be a heat pump.

EXCEPTION: unstaffed equipment shelters or cabinets used solely for personal wireless service facilities.

AMENDATORY SECTION (Amending WSR 93-21-052, filed 10/18/93, effective 4/1/94)

WAC 51-11-1412 Controls.

1412.1 Temperature Controls: Each system shall be provided with at least one temperature control device. Each zone shall be controlled by individual thermostatic controls responding to temperature within the zone. At a minimum, each floor of a building shall be considered as a separate zone.

1412.2 Deadband Controls: When used to control both comfort heating and cooling, zone thermostatic controls shall be capable of a deadband of at least 5 degrees F within which the supply of heating and cooling energy to the zone is shut off or reduced to a minimum.

EXCEPTIONS:

1. Special occupancy, special usage, or code requirements where deadband controls are not appropriate.
2. Buildings complying with Section 1141.4, if in the proposed building energy analysis, heating and cooling thermostat setpoints are set to the same temperature between 70 degrees F and 75 degrees F inclusive, and assumed to be constant throughout the year.
3. Thermostats that require manual changeover between heating and cooling modes.

1412.3 Humidity Controls: If a system is equipped with a means for adding moisture, a humidistat shall be provided.

1412.4 Setback and Shut-Off: HVAC systems shall be equipped with automatic controls capable of accomplishing a reduction of energy use through control setback or equipment shutdown during periods of non-use or alternate use of

Where no applicable procedures exist, data shall be furnished by the equipment manufacturer.

1411.3 Combination Space and Service Water Heating: ~~((Equipment whose listed principal function is service water heating and which is used to provide additional functions (e.g., space heating) as part of a combination system, shall comply with minimum performance requirements for the principal function category.))~~ For combination space and service water heaters with a principal function of providing space heat, the Combined Annual Efficiency (CAE) may be calculated by using ASHRAE Standard 124-1991. Storage water heaters used in combination space heat and water heat applications shall have either an Energy Factor (EF) or a Combined Annual Efficiency (CAE) of not less than the following:

the spaces served by the system. The automatic controls shall have a minimum seven-day clock and be capable of being set for seven different day types per week.

EXCEPTIONS:

1. Systems serving areas which require continuous operation at the same temperature setpoint.
2. Equipment with full load demands of 2 Kw (6,826 Btu/h) or less may be controlled by readily accessible manual off-hour controls.

1412.4.1 Dampers: Outside air intakes, exhaust outlets and relief outlets serving conditioned spaces shall be equipped with dampers which close automatically when the system is off or upon power failure. ~~((Stair shaft and elevator shaft smoke relief openings shall be equipped with normally open dampers. These dampers shall remain closed in normal operation until activated by the fire alarm system or other approved smoke detection system.))~~

EXCEPTIONS:

1. Systems serving areas which require continuous operation.
2. Combustion air intakes.

1412.5 Heat Pump Controls: Unitary air cooled heat pumps shall include microprocessor controls that minimize supplemental heat usage during start-up, set-up, and defrost conditions. These controls shall anticipate need for heat and use compression heating as the first stage of heat. Controls shall indicate when supplemental heating is being used through visual means (e.g., LED indicators).

1412.6 Combustion Heating Equipment Controls: Combustion heating equipment with a capacity over 225,000 Btu/h shall have modulating or staged combustion control.

EXCEPTIONS:

1. Boilers.
2. Radiant heaters.

1412.7 Balancing: Each air supply outlet or air or water terminal device shall have a means for balancing, including but not limited to, dampers, temperature and pressure test connections and balancing valves.

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AMENDATORY SECTION (Amending WSR 93-21-052, filed 10/18/93, effective 4/1/94)

WAC 51-11-1414 Ducting systems.

1414.1 Sealing: Duct work which is designed to operate at pressures above 1/2 inch water column static pressure shall be sealed in accordance with Standard RS-18. Extent of sealing required is as follows:

1. Static pressure: 1/2 inch to 2 inches; seal transverse joints.
2. Static pressure: 2 inches to 3 inches; seal all transverse joints and longitudinal seams.
3. Static pressure: Above 3 inches; seal all transverse joints, longitudinal seams and duct wall penetrations.

Duct tape and other pressure sensitive tape shall not be used as the primary sealant where ducts are designed to operate at static pressures of 1 inch W.C. or greater.

1414.2 Insulation: Ducts and plenums that are constructed and function as part of the building envelope, by separating interior space from exterior space, shall meet ((the)) all applicable requirements of Chapter 13. These requirements include insulation installation, moisture control, air leakage, and building envelope insulation levels. Unheated equipment rooms with combustion air louvers must be isolated from the conditioned space by insulating interior surfaces to a minimum of R-11 and any exterior envelope surfaces per Chapter 13. Outside air duct runs are considered building envelope until they,

1. connect to the heating or cooling equipment, or
2. are isolated from the exterior with an automatic shut-off damper.

Once outside air ducts meet the above listed requirements, any runs within conditioned space must comply with Table 14-5 requirements.

Other ducts and plenums shall be thermally insulated per Table 14-5.

EXCEPTIONS:

1. Within the HVAC equipment.
2. Exhaust air ducts not subject to condensation.
3. Exposed ductwork within a space that serves that space only.

AMENDATORY SECTION (Amending WSR 93-21-052, filed 10/18/93, effective 4/1/94)

WAC 51-11-1421 System type. To qualify as a simple system, systems shall be one of the following:

- a. Air cooled, constant volume packaged equipment, which provide heating, cooling or both, and require only external connection to duct work and energy services.
- b. Air cooled, constant volume split systems, which provide heating, cooling or both, with cooling capacity of ~~((54,000))~~ 84,000 Btu/h or less.
- c. Heating only systems which have a capacity of less than 5,000 cfm or which have a minimum outside air supply of less than 70 percent of the total air circulation.

All other systems shall comply with Sections 1430 through 1438.

AMENDATORY SECTION (Amending WSR 93-21-052, filed 10/18/93, effective 4/1/94)

WAC 51-11-1422 Controls. In addition to the control requirements in Section 1412, where separate heating and cooling equipment serve the same temperature zone, thermostats shall be interlocked to prevent simultaneous heating and cooling. Systems which provide heating and cooling simultaneously to a zone are prohibited.

AMENDATORY SECTION (Amending WSR 93-21-052, filed 10/18/93, effective 4/1/94)

WAC 51-11-1423 Economizers. Economizers meeting the requirements of Section 1413 shall be installed on ~~((packaged roof top))~~ single package unitary fan-cooling units having a supply capacity of greater than 1,900 cfm or a total cooling capacity greater than 54,000 Btu/h.

The total capacity of all units without economizers shall not exceed 240,000 Btu/h per building, or 10% of its aggregate cooling (economizer) capacity, whichever is greater.

AMENDATORY SECTION (Amending WSR 93-21-052, filed 10/18/93, effective 4/1/94)

WAC 51-11-1433 Economizers. Economizers meeting the requirements of Section 1413 shall be installed on the following systems:

- a. ~~((Packaged roof top))~~ Single package unitary fan-cooling units with a supply capacity of greater than 1,900 cfm or a total cooling capacity greater than 54,000 Btu/h.
- b. Other individual fan-cooling units with a supply capacity of greater than 2,800 cfm or a total cooling capacity greater than 84,000 Btu/h.

The total capacity of all units without economizers shall not exceed 240,000 Btu/h per building, or 10% of its aggregate cooling (economizer) capacity, whichever is greater.

EXCEPTIONS:

1. Systems with air or evaporatively cooled condensers and that either one of the following can be demonstrated to the satisfaction of the enforcing agency:
 - a. Special outside air filtration and treatment, for the reduction and treatment of unusual outdoor contaminants, makes an air economizer infeasible.
 - b. The use of outdoor air cooling affects the operation of other systems (such as humidification, dehumidification, and super-market refrigeration systems) so as to increase the overall building energy consumption.
2. Systems for which at least 75 percent of the annual energy used for mechanical cooling is provided from site-recovery or site-solar energy source.
3. A water economizer system, which is capable of cooling supply air by indirect evaporation. Such a system shall be designed and capable of being controlled to provide 100 percent of the expected system cooling load at outside air temperatures of 50 degrees F dry-bulb/45 degrees F wet-bulb and below. For this calculation, all factors including solar and internal load shall be the same as those used for peak load calculations, except for the outside air temperatures.

AMENDATORY SECTION (Amending WSR 93-21-052, filed 10/18/93, effective 4/1/94)

~~WAC 51-11-1452 ((Pool water heaters. Pool water heaters using electric resistance heating as the primary source of heat are prohibited for pools over 2,000 gallons.)) (Reserved.)~~

AMENDATORY SECTION (Amending WSR 93-21-052, filed 10/18/93, effective 4/1/94)

WAC 51-11-1454 Pool covers. Heated pools shall be equipped with a vapor retardant pool cover on or at the water surface. Pools heated to more than 90 degrees F shall have a pool cover with a minimum insulation value of R-12.

TABLE 14-1
Standard Rating Conditions and Minimum Performance for
Air Cooled Unitary Air Conditioners, Heat Pumps,
Packaged Terminal Air Conditioners,
Warm Air Furnaces, Duct Furnaces and Unit Heaters

Equipment Type & Rating	Category	Sub-category & Rating Conditions	Minimum Rating		Standard
			Steady State	Seasonal or Part Load	
Air Conditioners and Heat Pumps Cooling Ratings	≤65,000 Btu/h Cooling Capacity	Split Systems Single Package	NA	10.0 SEER	ARI 210/240-1989
		Single Package	NA	9.7 SEER	
	>65,000 and ≤135,000 Btu/h Cooling Capacity	All Unitary	8.9 EER	8.3 IPLV	ARI 360-1986
		Standard Ratings:	95°F db	80°F db	
		Air Conditioners	8.5 EER	7.5 IPLV	
>135,000 and ≤760,000 Btu/h ¹ Cooling Capacity	Heat Pumps	8.5 EER	7.5 IPLV	ARI 360-1986	
	Air Conditioners	8.2 EER	7.5 IPLV		
>760,000 Btu/h ¹ Cooling Capacity	Heat Pumps	8.7 EER	7.5 IPLV		
Packaged Term. Air Conditioners & Heat Pumps Cooling Ratings	All Capacities	Air Conditioners and Heat Pumps	10.0 - (0.16 x Cap/1000) ³ EER	12.2 - (0.20 x Cap/1000) ^{2,3} EER	ARI 310-1990
Heat Pump Heating Ratings	≤65,000 Btu/h Cooling Capacity	Split Systems Single Package		6.8 HSPF	ARI 210/240-1989
		Single Package		6.6 HSPF	
	>65,000 and ≤135,000 Btu/h Cooling Capacity	All Unitary	3.0 COP	2.0 COP	
Standard Ratings:		47°F db/43°F wb	17°F db/15°F wb		
	>135,000 Btu/h Cooling Capacity	Standard Ratings:	2.9 COP	2.0 COP	ARI 365-1986
		47 °F	17 °F		
Packaged Term. Heat Pumps Heating Ratings	All Capacities	Heat Pumps	2.9 - (0.026x Cap/1000) ³ COP		ARI 380-1990
		Standard Ratings:	47°F db/43°F wb		
Warm Air Furnaces & Combination Furnace/A.C.	<225,000 Btu/h	Gas and Oil Fired Seasonal Ratings:	80% E _t ⁴	78% AFUE ⁵	DOE 10CFR Part430 AppN
	≥225,000 Btu/h	Gas, Max Rating ⁶	80% E _t ⁴	NA	ANSI Z21.47-1983
		Gas, Min Rating ⁶	78% E _t ⁴	NA	
≥225,000 Btu/h	Oil, Max Rating ⁶	81% E _t ⁴	NA	UL 727-1986	
	Oil, Min Rating ⁶	81% E _t ⁴	NA		
Warm-Air Duct Furnaces and Unit Heaters	All Size Gas Duct Furnaces	Max Rated Capacity ⁶	78% E _t ⁴	NA	ANSI Z83.9-1986
		Min Rated Capacity ⁶	75% E _t ⁴	NA	
	All Size Gas Unit Heaters	Max Rated Capacity ⁶	78% E _t ⁴	NA	ANSI Z83.8-1985
		Min Rated Capacity ⁶	74% E _t ⁴	NA	
All Size Oil Unit Heaters	Max Rated Capacity ⁶	81% E _t ⁴	NA	UL 731-1988	
	Min Rated Capacity ⁶	81% E _t ⁴	NA		

- For units that have a heating section, deduct 0.2 from all required EER's and IPLV's.
- For multi-capacity equipment the minimum performance shall apply to each step provided Multi-capacity refers to manufacturer published rating for more than one capacity mode allowed by the product's controls.
- Capacity (Cap) means the rated cooling capacity of the product in Btu/h in accordance with the cited ARI standard. If the unit's capacity is less than 7,000 Btu/h, use 7,000 Btu/h in the calculation. If the unit's capacity is greater than 15,000 Btu/h, use 15,000 Btu/h in the calculation.
- These values apply to non-NAECA equipment. See referenced standard for definition of Thermal efficiency

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TABLE 14-2
Standard Rating Conditions and Minimum Performance for
Water and Evaporatively Cooled Unitary Air Conditioners, Heat
Pumps, Water Source and Ground Source Heat Pumps, Condensing
Units, and Water Chilling Packages

Equipment Type & Rating	Category	Sub-category & Rating Conditions	Minimum Rating		Standard
			Steady State	Seasonal or Part Load	
Evaporatively Cooled A/Cs & Heat Pumps Cooling Ratings	≤65,000 Btu/h Cooling Capacity	Standard Conditions ¹ : Outdoor Conditions: 95°F db/75°F wb	9.3 EER	8.5 IPLV	ARI 210/240-1989 CTI 201-1986
	>65,000 and ≤135,000 Btu/h Cooling Capacity		10.5 EER	9.7 IPLV	
Water Source Heat Pump Cooling Ratings	≤65,000 Btu/h Cooling Capacity	Standard Conditions ¹ : Entering Water	9.3 EER 85°F ewt ²	10.2 EER 75°F ewt ²	ARI 320-1986 CTI 201-1986
	>65,000 and ≤135,000 Btu/h Cooling Capacity		Standard Conditions ¹ : Entering Water	10.5 EER 85°F ewt ²	
Ground Water Heat Pump Cooling Ratings	<135,000 Btu/h Cooling Capacity	Standard Conditions ¹ : Entering Water	11.0 EER 70°F ewt ²	11.5 EER 50°F ewt ²	ARI 325-1985
Water Cooled Unitary Air Conditioners Cooling Ratings	≤65,000 Btu/h Cooling Capacity	Standard Conditions ¹ : Entering Water	9.3 EER 85°F ewt ²	8.3 IPLV 75°F ewt ²	ARI 210/240-1989 CTI 201-1986
	>65,000 and ≤135,000 Btu/h Cooling Capacity		Standard Conditions ¹ : Entering Water	10.5 EER 85°F ewt ²	
Water/Evap Cooled Air Cond. and Heat Pumps Cooling Ratings	>135,000 Btu/h Cooling Capacity	Standard Conditions ¹ :	9.6 EER	9.0 IPLV	ARI 360-1986 CTI 201-1986
Air and Water/Evap Cooled Condensing Units Cooling Ratings ³	>135,000 Btu/h Cooling Capacity	Air Cooled	9.9 EER	11.0 IPLV	ARI 365-1987
		Water/Evap Cooled	12.9 EER	12.9 IPLV	CTI 201-1986
Air and Water Cooled Water Chilling Packages Cooling Ratings	<150 Tons	Water Cooled	3.8 COP	3.9 IPLV	ARI 550-90 ARI 590-86pN CTI 201-1986
	≥150 and <300 Tons		4.2 COP	4.5 IPLV	
	≥300 Tons		5.2 COP ⁴	5.3 IPLV ⁴	
	<150 Tons	Air Cooled with Condenser	2.7 COP	2.8 IPLV	
	≥150 Tons		2.5 COP	2.5 IPLV	
	All Capacities	Air Cooled Condenserless	3.1 COP	3.2 IPLV	
Water & Ground-Water Source Heat Pumps Heating Ratings	<135,000 Btu/h Cooling Capacity	Water Source Standard Conditions ¹ :	3.8 COP 70°F ewt ²	NA NA	ARI 320-1986 ARI 325-1985
		Ground Water Source Standard Conditions ¹ :	3.4 COP 70°F ewt ²	3.0 COP 50°F ewt ²	

1. Standard Indoor Conditions: 80°F dry bulb and 67°F wet bulb.
2. ewt: Entering Water Temperature for water cooled heat pumps and air conditioners.
3. Condensing unit requirements are based on single - number rating defined in paragraph 5.1.3.2 of ARI Standard 365.
4. These requirements are reduced to 4.7 COP and 4.8 IPLV, where refrigerants with ozone depletion factors of 0.05 or less are used. No reduction is allowed for standard design systems analyzed under Standard RS-29.

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TABLE 14-3
Standard Rating Conditions and Minimum Performance,
Gas- and Oil-Fired Boilers

Reference	Category	Rating Condition	Minimum Performance
DOE Test Procedure 10 CFR, Part 430 AppN	Gas-Fired < 300,000 Btu/h	Seasonal Rating	AFUE 80% ^{1,3}
	Oil-Fired < 300,000 Btu/h	Seasonal Rating	AFUE 80% ¹
ANSI Z21.13-87 H.I. Htg. Boiler Std. 86 ASME PTC4.1-64 U.L. 795-73	Gas-Fired ≥ 300,000 Btu/h	1. Max. Rated Capacity ² Steady-State	E _c ⁴ 80%
		2. Min. Rated Capacity ² Steady-State	E _c ⁴ 80%
U.L. 726-75 H.I. Htg. Boiler Std. 86 ASME PTC4.1-64	Oil-Fired ≥ 300,000 Btu/h	1. Max. Rated Capacity ² Steady-State	E _c ⁴ 83%
		2. Min. Rated Capacity ² Steady-State	E _c ⁴ 83%
H.I. Htg. Boiler Std. 86 ASME PTC4.1-64	Oil-Fired (Residual) ≥ 300,000 Btu/h	1. Max. Rated Capacity ² Steady-State	E _c ⁴ 83%
		2. Min. Rated Capacity ² Steady-State	E _c ⁴ 83%

1. To be consistent with National Appliance Energy Conservation Act of 1987 (P.L. 100-12).
2. Provided and allowed by the controls.
3. Except for gas-fired steam boilers for which minimum AFUE is 75%.
4. E_c = combustion efficiency, 100% - flue losses. See reference document for detailed information.

TABLE 14-4
Energy Efficient Electric Motors
Minimum Nominal Full-Load Efficiency

Synchronous Speed (RPM)	Open Motors			Closed Motors		
	3,600	1,800	1,200	3,600	1,800	1,200
HP	Efficiency	Efficiency	Efficiency	Efficiency	Efficiency	Efficiency
1.0	-	82.5	80.0	75.5	82.5	80.0
1.5	82.5	84.0	84.0	82.5	84.0	85.5
2.0	84.0	84.0	85.5	84.0	84.0	86.5
3.0	84.0	86.5	86.5	85.5	87.5	87.5
5.0	85.5	87.5	87.5	87.5	87.5	87.5
7.5	87.5	88.5	88.5	88.5	89.5	89.5
10.0	88.5	89.5	90.2	89.5	89.5	89.5
15.0	89.5	91.0	90.2	90.2	91.0	90.2
20.0	90.2	91.0	91.0	90.2	91.0	90.2
25.0	91.0	91.7	91.7	91.0	92.4	91.7
30.0	91.0	92.4	92.4	91.0	92.4	91.7
40.0	91.7	93.0	93.0	91.7	93.0	93.0
50.0	92.4	93.0	93.0	92.4	93.0	93.0
60.0	93.0	93.6	93.6	93.0	93.6	93.6
75.0	93.0	94.1	93.6	93.0	94.1	93.6
100.0	93.0	94.1	94.1	93.6	94.5	94.1
125.0	93.6	94.5	94.1	94.5	94.5	94.1
150.0	93.6	95.0	94.5	94.5	95.0	95.0
200.0	94.5	95.0	94.5	95.0	95.0	95.0

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**TABLE 14-5
Duct Insulation**

Duct Location	Insulation R-Value
Not within conditioned space: On exterior of building, on roof, in attic, in enclosed ceiling space, in walls, in garage, in crawl spaces	R-7 ¹
Not within conditioned space: in concrete, in ground	R-5.3
Supply air ducts within conditioned space with HVAC equipment supply air temperature <55 or >105°F	R-3.3

Note: Requirements apply to both supply and return ducts, whether heated or mechanically cooled. Mechanically cooled ducts requiring insulation shall have a vapor retarder, with a perm rating not greater than 0.5 and all joints sealed.

1. With approved weatherproof barrier.

INSULATION TYPES: Minimum densities and out of package thickness. Nominal R-values are for the insulation as installed and do not include air film resistance.

INSTALLED:

- R-3.3 — 1.0 inch 1.5 to 3.0 lb/cu.ft. duct liner, mineral or glass fiber blanket or equivalent to provide an installed total thermal resistance of at least R-3.3.
- R-5.3 — 2.0 inch 0.75 lb/cu.ft. mineral or glass fiber blanket, 1.5 inch 1.5 to 3.0 lb/cu.ft. duct liner, mineral or glass fiber blanket, 1.5 inch 3.0 to 7.0 lb/cu.ft. mineral or glass fiber board or equivalent to provide an installed total thermal resistance of at least R-5.3.
- R-7 — 3.0 inch 0.75 lb/cu.ft. mineral or glass fiber blanket, 2.0 inch 1.5 to 3.0 lb/cu.ft. duct liner, mineral or glass fiber blanket, 2.0 inch 3.0 to 7.0 lb/cu.ft. mineral or glass fiber board or equivalent to provide an installed total thermal resistance of at least R-7.

**TABLE 14-5
Duct Insulation**

Duct Type	Duct Location	Insulation R-Value	Other Requirements
Supply, Return	Not within conditioned space: On exterior of building, on roof, in attic, in enclosed ceiling space, in walls, in garage, in crawl spaces	R-7	Approved weather proof barrier
Outside air intake	Within conditioned space	R-7	See Section 1414.2
Supply, Return, Outside air intake	Not within conditioned space: in concrete, in ground	R-5.3	
Supply with supply air temperature <55°F or >105°F	Within conditioned space	R-3.3	

Note: Requirements apply to both supply and return ducts, whether heated or mechanically cooled. Mechanically cooled ducts requiring insulation shall have a vapor retarder, with a perm rating not greater than 0.5 and all joints sealed.

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TABLE 14-6
Minimum Pipe Insulation (inches)¹

Fluid Design Operating Temp. Range, °F	Insulation Conductivity		Nominal Pipe Diameter (in.)					
	Conductivity Range Btu • in./(h • ft ² • °F)	Mean Rating Temp. °F	Runouts ² up to 2	1 and less	> 1 to 2	> 2 to 4	> 4 to 6	> 6
Heating systems (Steam, Steam Condensate and Hot water)			Nominal Insulation Thickness					
Above 350	0.32-0.34	250	1.5	2.5	2.5	3.0	3.5	3.5
251-350	0.29-0.31	200	1.5	2.0	2.5	2.5	3.5	3.5
201-250	0.27-0.30	150	1.0	1.5	1.5	2.0	2.0	3.5
141-200	0.25-0.29	125	0.5	1.5	1.5	1.5	1.5	1.5
105-140	0.24-0.28	100	0.5	1.0	1.0	1.0	1.5	1.5
Domestic and Service Hot Water Systems								
105 and Greater	0.24-0.28	100	0.5	1.0	1.0	1.5	1.5	1.5
Cooling Systems (Chilled Water, Brine and Refrigerant)								
40-55	0.23-0.27	75	0.5	0.5	0.75	1.0	1.0	1.0
Below 40	0.23-0.27	75	1.0	1.0	1.5	1.5	1.5	1.5

- Alternative Insulation Types. Insulation thicknesses in Table 14-6 are based on insulation with thermal conductivities within the range listed in Table 14-6 for each fluid operating temperature range, rated in accordance with ASTM C 335-84 at the mean temperature listed in the table. For insulation that has a conductivity outside the range shown in Table 14-6 for the applicable fluid operating temperature range at the mean rating temperature shown (when rounded to the nearest 0.01 Btu • in./(h • ft² • °F)), the minimum thickness shall be determined in accordance with the following equation:

$$T = PR[(1 + t/PR)^{K/k} - 1]$$

Where

- T = Minimum insulation thickness for material with conductivity K, inches.
- PR = Pipe actual outside radius, inches
- t = Insulation thickness from Table 14-6, inches
- K = Conductivity of alternate material at the mean rating temperature indicated in Table 14-6 for the applicable fluid temperature range, Btu • in./(h • ft² • °F)
- k = The lower value of the conductivity range listed in Table 14-6 for the applicable fluid temperature range, Btu • in./(h • ft² • °F)

2. Runouts to individual terminal units not exceeding 12 ft. in length.

Reviser's note: RCW 34.05.395 requires the use of underlining and deletion marks to indicate amendments to existing rules. The rule published above varies from its predecessor in certain respects not indicated by the use of these markings.

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 93-21-052, filed 10/18/93, effective 4/1/94)

WAC 51-11-1512 Exempt lighting.

1512.1 Exempt Spaces: The following rooms, spaces, and areas, are exempt from the lighting power requirements in

Sections 1520 and 1530 but shall comply with all other requirements of this chapter.

- Areas in which medical or dental tasks are performed.
- High risk security areas or any area identified by ((safety)) building officials as requiring additional lighting.
- Spaces designed for primary use by the visually impaired, hard of hearing (lip-reading) or by senior citizens.
- Food preparation areas.
- Outdoor manufacturing, greenhouses, and processing areas.
- Electrical/mechanical equipment rooms.

7. Outdoor athletic facilities.
8. Inspection and restoration areas in galleries and museums.

1512.2 Exempt Lighting Equipment: The following lighting equipment and tasks are exempt from the lighting requirements of Section 1520 and need not be included when calculating the installed lighting power under Section 1530 but shall comply with all other requirements of this chapter. All other lighting in areas that are not exempted by Section 1512.2, where exempt tasks and equipment are used, shall comply with all of the requirements of this chapter.

1. Special lighting needs for research.
2. Emergency lighting that is automatically OFF during normal building operation.
3. Lighting ~~((for))~~ integral to signs, and permanently ballasted lighting fixtures for walkways and pathways.
4. Lighting that is part of machines, equipment or furniture.
5. Lighting that is used solely for indoor plant growth during the hours of 10:00 p.m. to 6:00 a.m.
6. Lighting for theatrical productions, television broadcasting (including sports facilities), audio-visual presentations, and special effects lighting for stage areas and dance floors in entertainment facilities.
7. Lighting for art exhibits, non-retail displays, portable plug in display fixtures, and show case lighting.
8. Exterior lighting for public monuments.

AMENDATORY SECTION (Amending WSR 93-21-052, filed 10/18/93, effective 4/1/94)

WAC 51-11-1530 ~~((Component performance))~~

Lighting power allowance option. The installed lighting wattage shall not exceed the lighting power allowance. Lighting wattage includes lamp and ballast wattage. Wattage for fluorescent lamps and ballasts shall be tested per ANSI Standard C82.2-1984.

The wattage used for any unballasted fixture shall be the maximum UL listed wattage for that fixture regardless of the lamp installed. The wattage used for track lighting shall be ~~((the maximum of actual luminaire wattage or 50 watts per lineal foot of track))~~;

- a. for line voltage track, 50 watts per lineal foot of track or actual luminaire wattage, whichever is greater
- b. for low voltage track, 25 watts per lineal foot of track or the VA rating of the transformer, whichever is greater.

No credit towards compliance with the lighting power allowances shall be given for the use of any controls, automatic or otherwise.

AMENDATORY SECTION (Amending WSR 93-21-052, filed 10/18/93, effective 4/1/94)

WAC 51-11-1701 Scope. The following standards ~~((will))~~ shall apply to Chapters 11 through 20.

The standards and portions thereof, which are referred to in various parts of this Code shall be part of the Washing-

ton State Energy Code and are hereby declared to be a part of this Code.

CODE STANDARD NO.	TITLE AND SOURCE
RS-1	<u>Same as RS-27</u>
RS-2	through RS-8 (Reserved)
RS-9	ASHRAE/IES Standard 90.1-1989, Efficient Design of Buildings Except New Low-Rise Residential Buildings.
RS-10	<u>Standard for Packaged Terminal Air Conditioners and Heat Pumps, ARI Standard 310/380-93.</u>
RS-11	through RS-17 (Reserved)
RS-18	SMACNA, <u>HVAC Duct Construction Standards Metal and Flexible</u> ((Construction Standards, 1st Edition)) , 2nd Edition, 1995.
RS-19	through RS-24 (Reserved)
RS-25	Thermal Bridges in Sheet Metal Construction from Appendix E of RS-9.
RS-26	Super Good Cents Technical Reference (<u>Builder's Field Guide</u>).
RS-27	((1993)) <u>1997 ASHRAE Fundamentals Handbook.</u>
RS-28	((1992 ASHRAE HVAC Systems and Equipment Handbook.)) (Reserved.)
RS-29	Commercial Building Design by Systems Analysis.
RS-30	Title 10, Code of Federal Regulations (CFR), Part 430 (March 14, 1988).
RS-31	National Fenestration Rating Council (NFRC) Standard 100 ((94)) , 1997 Edition.

ACCREDITED AUTHORITATIVE AGENCIES

ANSI refers to the American National Standards Institute, Inc., ~~((1430 Broadway, New York, NY 10018))~~ 11 West 42nd Street, New York, NY 10036
Phone (212) 642-4900 Fax (212) 398-0023, Internet www.ansi.org

ARI refers to the Air Conditioning and Refrigeration Institute, 4301 North Fairfax Drive, Suite 425, Arlington, VA 22203
Phone (703) 524-8800 Fax (703) 528-3816, Internet www.ari.org

ASHRAE refers to the American Society of Heating, Refrigerating and Air Conditioning Engineers, Inc., 1791 Tullie Circle, N.E., Atlanta, GA 30329
Phone (404) 636-8400 Fax (404) 321-5478, Internet www.ashrae.org

ASTM refers to the American Society for Testing and Materials, ~~((1916 Race Street, Philadelphia, PA 19103))~~ 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959
Phone (610) 832-9585 Fax (610) 832-9555, Internet www.astm.org

CTI refers to the Cooling Tower Institute, ~~((P.O. Box 73383 Houston TX 77273))~~ 530 Wells Fargo Drive, Suite 218, Houston, TX 77090
Phone (281) 583-4087 Fax (281) 537-1721, Internet www.cti.org

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IES refers to the Illuminating Engineering Society, 120 Wall Street, Floor 17, New York, NY 10005-4001
Phone (212) 248-5000 Fax (212) 248-5017, Internet www.ies.org

NFRC refers to the National Fenestration Rating Council, 1300 Spring Street, Suite 120, Silver Spring, MD 20910
Phone (301) 589-NFRC Fax (301) 588-0854, Internet www.nfrc.org

SMACNA refers to the Sheet Metal and Air Conditioning Contractors National Association, Inc., 4201 Lafayette Center Drive, P.O. Box 221230 Chantilly, VA ((22021-1209)) 20153-1230.
Phone (703) 803-2980 Fax (703) 803-3732, Internet www.smacna.org

AMENDATORY SECTION (Amending WSR 93-21-052, filed 10/18/93, effective 4/1/94)

WAC 51-11-2005 Above grade walls.

2005.1 General: Table 20-5, 20-5a and 20-5b list heat-loss coefficients for the opaque portion of above-grade wood stud frame walls, metal stud frame walls and concrete masonry walls (Btu/h•ft²•°F). They are derived from procedures listed in Standard RS-27, listed in Chapter 17.

2005.2 Framing Description: For wood stud frame walls, three framing types are considered, and defined as follows:

Standard: Studs framed on sixteen inch centers with double top plate and single bottom plate. Corners use three studs and each opening is framed using two studs. Headers consist of double 2X or single 4X material with an air space left between the header and the exterior sheathing. Interior partition wall/exterior wall intersections use two studs in the exterior wall.

Standard framing weighting factors:

Studs and plates	0.19
Insulated cavity	0.77
Headers	0.04

Intermediate: Studs framed on sixteen inch centers with double top plate and single bottom plate. Corners use two studs or other means of fully insulating corners, and each opening is framed by two studs. Headers consist of double 2X material with R-10 insulation between the header and exterior sheathing. Interior partition wall/exterior wall intersections are fully insulated in the exterior wall.

Intermediate framing weighting factors:

Studs and plates	0.18
Insulated cavity	0.78
Headers	0.04

Advanced: Studs framed on twenty-four inch centers with double top plate and single bottom plate. Corners use two studs or other means of fully insulating corners, and one stud is used to support each header. Headers consist of double 2X material with R-10 insulation between the header and exterior sheathing. Interior partition wall/exterior wall intersections are fully insulated in the exterior wall.

Advanced Framing Weighting Factors:

Studs and plates	0.13
Insulated cavity	0.83
Headers	0.04

2005.3 Component Description: For wood stud frame walls, default coefficients for three types of walls are listed: Single-stud walls, strap walls, and double-stud walls.

Single-Stud Wall: Assumes either 2x4 or 2x6 studs framed on sixteen or twenty-four inch centers. Headers are solid for 2x4 walls and double 2x for 2x6 walls, with either dead-air or rigid-board insulation in the remaining space.

Strap Wall: Assumes 2x6 studs framed on sixteen or twenty-four inch centers. 2x3 or 2x4 strapping is run horizontally along the interior surface of the wall to provide additional space for insulation.

Double-Stud Wall: Assumes an exterior structural wall and a separate interior, nonstructural wall. Insulation is placed in both wall cavities and in the space between the two walls. Stud spacing is assumed to be on twenty-four inch centers for both walls.

TABLE 20-5
Default U-factors for Above-Grade Walls

2 x 4 Single Wood Stud: R-11 Batt

NOTE:

Nominal Batt R-value:
 R-11 at 3.5 inch thickness

Installed Batt R-value:
 R-11 in 3.5 inch cavity

Siding Material/Framing Type				
R-value of Foam Board	Lapped Wood		T1-11	
	STD	ADV	STD	ADV
0	0.088	0.084	0.094	0.090
1	0.080	0.077	0.085	0.082
2	0.074	0.071	0.078	0.075
3	0.069	0.066	0.072	0.070
4	0.064	0.062	0.067	0.065
5	0.060	0.058	0.063	0.061
6	0.056	0.055	0.059	0.057
7	0.053	0.052	0.055	0.054
8	0.051	0.049	0.052	0.051
9	0.048	0.047	0.050	0.049
10	0.046	0.045	0.047	0.046
11	0.044	0.043	0.045	0.044
12	0.042	0.041	0.043	0.042

2 x 4 Single Wood Stud: R-13 Batt

NOTE:

Nominal Batt R-value:
 R-13 at 3.63 inch thickness

Installed Batt R-value:
 R-12.7 in 3.5 inch cavity

Siding Material/Framing Type				
R-value of Foam Board	Lapped Wood		T1-11	
	STD	ADV	STD	ADV
0	0.082	0.078	0.088	0.083
1	0.075	0.072	0.080	0.076
2	0.069	0.066	0.073	0.070
3	0.065	0.062	0.068	0.065
4	0.060	0.058	0.063	0.061
5	0.057	0.055	0.059	0.057
6	0.053	0.052	0.056	0.054
7	0.051	0.049	0.052	0.051
8	0.048	0.047	0.050	0.048
9	0.046	0.045	0.047	0.046
10	0.044	0.043	0.045	0.044
11	0.042	0.041	0.043	0.042
12	0.040	0.039	0.041	0.040

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2 x 4 Single Wood Stud: R-15 Batt

NOTE:

Nominal Batt R-value:
R-15 at 3.5 inch thickness

Installed Batt R-value:
R-15 in 3.5 inch cavity

Siding Material/Framing Type				
R-value of Foam Board	Lapped Wood		T1-11	
	STD	ADV	STD	ADV
0	0.076	0.071	0.081	0.075
1	0.069	0.065	0.073	0.069
2	0.064	0.061	0.068	0.069
3	0.060	0.057	0.063	0.059
4	0.056	0.053	0.059	0.056
5	0.053	0.051	0.055	0.052
6	0.050	0.048	0.052	0.050
7	0.047	0.046	0.049	0.047
8	0.045	0.044	0.047	0.045
9	0.043	0.042	0.044	0.043
10	0.041	0.040	0.042	0.041
11	0.039	0.038	0.041	0.039
12	0.038	0.037	0.039	0.038

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2 x 6 Single Wood Stud: R-19 Batt

NOTE:

Nominal Batt R-value:
R-19 at 6 inch thickness

Installed Batt R-value:
R-18 in 5.5 inch cavity

Siding Material/Framing Type						
R-value of Foam Board	Lapped Wood			T1-11		
	STD	INT	ADV	STD	INT	ADV
0	0.062	0.058	0.055	0.065	0.061	0.058
1	0.058	0.055	0.052	0.060	0.057	0.055
2	0.054	0.052	0.050	0.056	0.054	0.051
3	0.051	0.049	0.047	0.053	0.051	0.049
4	0.048	0.046	0.045	0.050	0.048	0.046
5	0.046	0.044	0.043	0.048	0.046	0.044
6	0.044	0.042	0.041	0.045	0.044	0.042
7	0.042	0.040	0.039	0.043	0.042	0.040
8	0.040	0.039	0.038	0.041	0.040	0.039
9	0.038	0.037	0.035	0.039	0.038	0.037
10	0.037	0.036	0.035	0.038	0.037	0.036
11	0.036	0.035	0.034	0.036	0.035	0.035
12	0.034	0.033	0.033	0.035	0.034	0.033

2 x 6 Single Wood Stud: R-21 Batt

Siding Material/Framing Type						
R-value of Foam Board	Lapped Wood			T1-11		
	STD	INT	ADV	STD	INT	ADV
0	0.057	0.054	0.051	0.060	0.056	0.053
1	0.054	0.051	0.048	0.056	0.053	0.050
2	0.050	0.048	0.045	0.052	0.050	0.047
3	0.048	0.045	0.043	0.049	0.047	0.045
4	0.045	0.043	0.041	0.047	0.045	0.043
5	0.043	0.041	0.040	0.044	0.042	0.041
6	0.041	0.039	0.038	0.042	0.041	0.039
7	0.039	0.038	0.036	0.040	0.039	0.037
8	0.038	0.036	0.035	0.039	0.037	0.036
9	0.036	0.035	0.034	0.037	0.036	0.035
10	0.035	0.034	0.033	0.036	0.035	0.033
11	0.033	0.033	0.032	0.034	0.033	0.032
12	0.032	0.031	0.031	0.033	0.032	0.031

NOTE:

Nominal Batt R-value:
R-21 at 5.5 inch thickness

Installed Batt R-value:
R-21 in 5.5 inch cavity

2 x 6 Single Wood Stud: R-22 Batt

Siding Material/Framing Type						
R-value of Foam Board	Lapped Wood			T1-11		
	STD	INT	ADV	STD	INT	ADV
0	0.059	0.055	0.052	0.062	0.058	0.054
1	0.055	0.052	0.049	0.057	0.054	0.051
2	0.052	0.049	0.047	0.054	0.051	0.048
3	0.049	0.046	0.044	0.050	0.048	0.046
4	0.046	0.044	0.042	0.048	0.046	0.044
5	0.044	0.042	0.041	0.045	0.043	0.042
6	0.042	0.040	0.039	0.043	0.042	0.040
7	0.040	0.039	0.037	0.041	0.040	0.038
8	0.038	0.037	0.036	0.039	0.038	0.037
9	0.037	0.036	0.035	0.038	0.037	0.035
10	0.035	0.034	0.033	0.036	0.035	0.034
11	0.034	0.033	0.032	0.035	0.034	0.033
12	0.033	0.032	0.031	0.034	0.033	0.032

NOTE:

Nominal Batt R-value:
R-22 at 6.75 inch thickness

Installed Batt R-value:
R-20 in 5.5 inch cavity

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2 x 6 Single Wood Stud: Two R-11 Batts

NOTE:

Nominal Batt R-value:
R-22 at 7 inch thickness

Installed Batt R-value:
R-18.9 in 5.5 inch cavity

Siding Material/Framing Type						
R-value of Foam Board	Lapped Wood			TI-11		
	STD	INT	ADV	STD	INT	ADV
0	0.060	0.057	0.054	0.063	0.059	0.056
1	0.056	0.053	0.051	0.059	0.056	0.053
2	0.053	0.050	0.048	0.055	0.052	0.050
3	0.050	0.048	0.046	0.052	0.049	0.047
4	0.047	0.045	0.044	0.049	0.047	0.045
5	0.045	0.043	0.042	0.046	0.045	0.043
6	0.043	0.041	0.040	0.044	0.043	0.041
7	0.041	0.040	0.038	0.042	0.041	0.039
8	0.039	0.038	0.037	0.040	0.039	0.038
9	0.038	0.037	0.036	0.039	0.038	0.036
10	0.036	0.035	0.034	0.037	0.036	0.035
11	0.035	0.034	0.033	0.036	0.035	0.034
12	0.034	0.033	0.032	0.034	0.034	0.033

2 x 8 Single Stud: R-25 Batt

NOTE:

Nominal Batt R-value:
R-25 at 8 inch thickness

Installed Batt R-value:
R-23.6 in 7.25 inch cavity

Siding Material/Framing Type						
R-value of Foam Board	Lapped Wood			TI-11		
	STD	INT	ADV	STD	INT	ADV
0	0.051	0.047	0.045	0.053	0.049	0.046
1	0.048	0.045	0.043	0.049	0.046	0.044
2	0.045	0.043	0.041	0.047	0.044	0.042
3	0.043	0.041	0.039	0.044	0.042	0.040
4	0.041	0.039	0.037	0.042	0.040	0.038
5	0.039	0.037	0.036	0.040	0.038	0.037
6	0.037	0.036	0.035	0.038	0.037	0.036
7	0.036	0.035	0.033	0.037	0.035	0.034
8	0.035	0.033	0.032	0.035	0.034	0.033
9	0.033	0.032	0.031	0.034	0.033	0.032
10	0.032	0.031	0.030	0.033	0.032	0.031
11	0.031	0.030	0.029	0.032	0.031	0.030
12	0.030	0.029	0.028	0.031	0.030	0.029

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2 x 6: Strap Wall

	Siding Material/Frame Type			
	Lapped Wood		T1-11	
	STD	ADV	STD	ADV
R-19 + R-11 Batts	0.036	0.035	0.038	0.036
R-19 + R-8 Batts	0.041	0.039	0.042	0.040

2 x 6 + 2 x 4: Double Wood Stud

Batt Configuration			Siding Material/Frame Type			
			Lapped Wood		T1-11	
			Exterior	Middle	Interior	STD
R-19	—	R-11	0.040	0.037	0.041	0.038
R-19	—	R-19	0.034	0.031	0.035	0.032
R-19	R-8	R-11	0.029	0.028	0.031	0.029
R-19	R-11	R-11	0.027	0.026	0.028	0.027
R-19	R-11	R-19	0.024	0.023	0.025	0.023
R-19	R-19	R-19	0.021	0.020	0.021	0.020

2 x 4 + 2 x 4: Double Wood Stud

Batt Configuration			Siding Material/Frame Type			
			Lapped Wood		T1-11	
			Exterior	Middle	Interior	STD
R-11	—	R-11	0.050	0.046	0.052	0.048
R-19	—	R-11	0.039	0.037	0.043	0.039
R-11	R-8	R-11	0.037	0.035	0.036	0.036
R-11	R-11	R-11	0.032	0.031	0.033	0.032
R-13	R-13	R-13	0.029	0.028	0.029	0.028
R-11	R-19	R-11	0.026	0.026	0.027	0.026

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Log Walls

NOTE:

R-value of wood:
R-1.25 per inch thickness

Average wall thickness
90% average log diameter

Average Log Diameter, Inches	U-factor
6	0.148
8	0.111
10	0.089
12	0.074
14	0.063
16	0.056

Stress Skin Panel

NOTE:

R-value of expanded polystyrene: R=3.85 per inch

Framing: 6%

Spline: 8%

No thermal bridging between interior and exterior splines

Panel Thickness, Inches	U-factor
3 1/2	0.071
5 1/2	0.048
7 1/4	0.037
9 1/4	0.030
11 1/4	0.025

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Metal Stud Walls: The nominal R-values in Table 20-5a may be used for purposes of calculating metal stud wall section U-factors in lieu of the ASHRAE zone calculation method as provided in Chapter ((22)) 24 of Standard RS-27.

TABLE 20-5A
Default U-Factors and Effective R-Values for Metal Stud Walls

OVERALL ASSEMBLY U-FACTORS FOR METAL STUD WALLS

Nominal Wall Thickness, Inches	Nominal Insulation R-Value	Overall Assembly U-Factors	
		16" O.C.	24" O.C.
4	R-11	0.14	0.13
4	R-13	0.13	0.12
4	R-15	0.12	0.11
6	R-19	0.11	0.10
6	R-21	0.11	0.09
8	R-25	0.10	0.09

EFFECTIVE R-VALUES FOR METAL STUD AND INSULATED CAVITY ONLY

Cavity		Insulation		
Nominal Depth, Inches	Actual Depth, Inches	Nominal R-Value	Effective R-value	
			16" O.C.	24" O.C.
4	3-1/2	R-11	5.5	6.6
4	3-1/2	R-13	6.0	7.2
4	3-1/2	R-15	6.4	7.8
6	5-1/2	R-19	7.1	8.6
6	5-1/2	R-21	7.4	9.0
8	7-1/4	R-25	7.8	9.6

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TABLE 20-5A
Default U-Factors and Effective R-Values for Metal Stud Walls
and Default U-Factors for Metal Buildings

OVERALL ASSEMBLY U-FACTORS FOR METAL STUD WALLS

Nominal Wall Thickness, Inches	Nominal Insulation R-Value	Overall Assembly U-Factors	
		16" O.C.	24" O.C.
4	R-11	0.14	0.13
4	R-13	0.13	0.12
4	R-15	0.12	0.11
6	R-19	0.11	0.10
6	R-21	0.11	0.09
8	R-25	0.10	0.09

EFFECTIVE R-VALUES FOR METAL STUD AND INSULATED CAVITY ONLY

CAVITY		INSULATION		
Nominal Depth, Inches	Actual Depth, Inches	Nominal R-Value	Effective R-value	
			16" O.C.	24" O.C.
4	3-1/2	R-11	5.5	6.6
4	3-1/2	R-13	6.0	7.2
4	3-1/2	R-15	6.4	7.8
6	5-1/2	R-19	7.1	8.6
6	5-1/2	R-21	7.4	9.0
8	7-1/4	R-25	7.8	9.6

DEFAULT U-FACTORS FOR METAL BUILDINGS

	R-10	R-11	R-13	R-19	R-24	R-30
Faced fiber glass blanket insulation rolled over and perpendicular to structural frame. Metal covering sheets fastened to the frame, holding insulation in place.	0.133	0.127	0.114	0.091	na	na
Faced fiber glass batt insulation suspended between structural frame. Metal covering sheets fastened directly to frame.	0.131	0.123	0.107	0.079	0.065	0.057
Faced fiber glass blanket insulation rolled over and perpendicular to structural frame. Rigid insulation blocks placed over insulation to align with structural frame	0.102	0.096	0.084	0.065	na	na
Faced fiber glass batt insulation suspended between structural frame. Rigid insulation blocks placed over insulation to align with structural frame.	0.099	0.093	0.080	0.059	0.048	0.041

Concrete Masonry Walls: The nominal R-values in Table 20-5b may be used for purposes of calculating concrete masonry wall section U-factors in lieu of the ASHRAE isothermal planes calculation method as provided in Chapter ((22)) 24 of Standard RS-27.

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TABLE 20-5B
Default U-Factors for Concrete and Masonry Walls

8" CONCRETE MASONRY

WALL DESCRIPTION	CORE TREATMENT			
	Partial Grout with UngROUTED Cores			Solid Grout
	Empty	Loose-fill insulated		
		Pelite	Vermiculite	
Exposed Block, Both Sides	0.40	0.23	0.24	0.43
R-5 Interior Insulation, Wood Furring	0.14	0.11	0.12	0.15
R-6 Interior Insulation, Wood Furring	0.14	0.11	0.11	0.14
R-10.5 Interior Insulation, Wood Furring	0.11	0.09	0.09	0.11
R-8 Interior Insulation, Metal Clips	0.11	0.09	0.09	0.11
R-6 Exterior Insulation	0.12	0.10	0.10	0.12
R-10 Exterior Insulation	0.08	0.07	0.07	0.08
R-9.5 Rigid Polystyrene Integral Insulation, Two Webbed Block	0.11	0.09	0.09	0.12

12" CONCRETE MASONRY

WALL DESCRIPTION	CORE TREATMENT			
	Partial Grout with UngROUTED Cores			Solid Grout
	Empty	Loose-fill insulated		
		Pelite	Vermiculite	
Exposed Block, Both Sides	0.35	0.17	0.18	0.33
R-5 Interior Insulation, Wood Furring	0.14	0.10	0.10	0.13
R-6 Interior Insulation, Wood Furring	0.13	0.09	0.10	0.13
R-10.5 Interior Insulation, Wood Furring	0.11	0.08	0.08	0.10
R-8 Interior Insulation, Metal Clips	0.10	0.08	0.08	0.09
R-6 Exterior Insulation	0.11	0.09	0.09	0.11
R-10 Exterior Insulation	0.08	0.06	0.06	0.08
R-9.5 Rigid Polystyrene Integral Insulation, Two Webbed Block	0.11	0.08	0.09	0.12

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8" CLAY BRICK

WALL DESCRIPTION	CORE TREATMENT			
	Partial Grout with UngROUTED Cores			Solid Grout
	Empty	Loose-fill insulated		
		Perlite	Vermiculite	
Exposed Block, Both Sides	0.50	0.31	0.32	0.56
R-5 Interior Insulation, Wood Furring	0.15	0.13	0.13	0.16
R-6 Interior Insulation, Wood Furring	0.15	0.12	0.12	0.15
R-10.5 Interior Insulation, Wood Furring	0.12	0.10	0.10	0.12
R-8 Interior Insulation, Metal Clips	0.11	0.10	0.10	0.11
R-6 Exterior Insulation	0.12	0.11	0.11	0.13
R-10 Exterior Insulation	0.08	0.08	0.08	0.09

6" CONCRETE POURED OR PRECAST

WALL DESCRIPTION	CORE TREATMENT			
	Partial Grout with UngROUTED Cores			Solid Grout
	Empty	Loose-fill insulated		
		Perlite	Vermiculite	
Exposed Concrete, Both Sides	NA	NA	NA	0.61
R-5 Interior Insulation, Wood Furring	NA	NA	NA	0.16
R-6 Interior Insulation, Wood Furring	NA	NA	NA	0.15
R-10.5 Interior Insulation, Wood Furring	NA	NA	NA	0.12
R-8 Interior Insulation, Metal Clips	NA	NA	NA	0.12
R-6 Exterior Insulation	NA	NA	NA	0.13
R-10 Exterior Insulation	NA	NA	NA	0.09

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Notes for Default Table 20-5B

1. Grouted cores at 40" x 48" on center vertically and horizontally in partial grouted walls.
2. Interior insulation values include 1/2" gypsum board on the inner surface.
3. Furring and stud spacing is 16" on center. Insulation is assumed to fill furring space and is not compressed.
4. Intermediate values may be interpolated using this table. Values not contained in this table may be computed using the procedures listed in Standard RS-27.

Reviser's note: RCW 34.05.395 requires the use of underlining and deletion marks to indicate amendments to existing rules. The rule published above varies from its predecessor in certain respects not indicated by the use of these markings.

AMENDATORY SECTION (Amending WSR 93-21-052, filed 10/18/93, effective 4/1/94)

WAC 51-11-2006 Default U-factors for glazing and doors.

2006.1 Untested Glazing and Doors: Untested glazing and doors shall be assigned the following U-factors:

~~TABLE 20-6~~

~~Default U-Factors for Vertical Glazing, Overhead Glazing and Opaque Doors~~

Vertical Glazing

	U-Factor
Single	1.45
Double	0.90
1/2 Inch Air, Fixed	0.75
1/2 Inch Air, Low-e ^(0.40) , Fixed	0.60
1/2 Inch Argon, Low-e ^(0.10) , Fixed	0.50

Overhead Glazing

	U-Factor	
	Any Frame	Vinyl/Wood Frame
Single	2.15	2.15
Double	1.45	1.00
Low-e ^(0.40) or Argon	1.40	0.95
Low-e ^(0.40) + Argon	1.30	0.85
Low-e ^(0.20) Air	1.30	0.90
Low-e ^(0.20) + Argon	1.25	0.80
Triple	1.25	0.80

Opaque Doors

	U-Factor
Uninsulated Metal	1.20
Insulated Metal (Including Fire Door and Smoke Vent)	0.60
Wood	0.50

NOTES:

- Where a gap width is listed (i.e.: 1/2 inch), that is the minimum allowed.
- Where a low-emissivity emittance is listed (i.e.: 0.40, 0.20, 0.10), that is the maximum allowed.
- Where a gas other than air is listed (i.e.: argon), the gas fill shall be a minimum of 90%.
- Where an operator type is listed (i.e.: fixed), the default is only allowed for that operator type.
- Where a frame type is listed (i.e.: wood/vinyl), the default is only allowed for that frame type.
- Wood/Vinyl frame includes reinforced vinyl and aluminum-clad wood.

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TABLE 20-6

Default U-Factors for Vertical Glazing, Overhead Glazing and Opaque Vertical Glazing Doors

	U-Factor	
	Any Frame	Vinyl/Wood Frame
Single	1.45	1.45
Double	0.90	0.75
1/2 Inch Air, Fixed	0.75	0.60
1/2 Inch Air, Low-e ^(0.40) , Fixed	0.60	0.50
1/2 Inch Argon, Low-e ^(0.10) , Fixed	0.50	0.40

Overhead Glazing

	U-Factor	
	Any Frame	Vinyl/Wood Frame
Single	2.15	2.15
Double	1.45	1.00
Low-e ^(0.40) or Argon	1.40	0.95
Low-e ^(0.40) + Argon	1.30	0.85
Low-e ^(0.20) Air	1.30	0.90
Low-e ^(0.20) + Argon	1.25	0.80
Triple	1.25	0.80

Opaque Doors

	U-Factor
Uninsulated Metal	1.20
Insulated Metal (Including Fire Door and Smoke Vent)	0.60
Wood	0.50

NOTES:

- Where a gap width is listed (i.e.: 1/2 inch), that is the minimum allowed.
 - Where a low-emissivity emittance is listed (i.e.: 0.40, 0.20, 0.10), that is the maximum allowed.
 - Where a gas other than air is listed (i.e.: argon), the gas fill shall be a minimum of 90%.
 - Where an operator type is listed (i.e.: fixed), the default is only allowed for that operator type.
 - Where a frame type is listed (i.e.: wood/vinyl), the default is only allowed for that frame type.
- Wood/Vinyl frame includes reinforced vinyl and aluminum-clad wood.

AMENDATORY SECTION (Amending WSR 93-21-052, filed 10/18/93, effective 4/1/94)

WAC 51-11-2007 Ceilings.

2007.1 General: Table 20-7 lists heat-loss coefficients for the opaque portion of exterior ceilings below vented attics, vaulted ceilings, and roof decks in units of Btu/h•ft²•°F of ceiling.

They are derived from procedures listed in Standard RS-27, listed in Chapter 17. Ceiling U-factors are modified for the buffering effect of the attic, assuming an indoor temperature of 65 degrees F and an outdoor temperature of 45 degrees F.

2007.2 Component Description: The three types of ceilings are characterized as follows:

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Ceilings Below a Vented Attic: Attic insulation is assumed to be blown-in, loose-fill fiberglass with a K-value of 2.6 (h•ft²•°F)/Btu per inch. Full bag count for specified R-value is assumed in all cases. Ceiling dimensions for flat ceiling calculations are forty-five by thirty feet, with a gabled roof having a 4/12 pitch. The attic is assumed to vent naturally at the rate of three air changes per hour through soffit and ridge vents. A void fraction of 0.002 is assumed for all attics with insulation baffles. Standard-framed, unbaffled attics assume a void fraction of 0.008.

Attic framing is either standard or advanced. Standard framing assumes tapering of insulation depth around the perimeter with resultant decrease in thermal resistance. An increased R-value is assumed in the center of the ceiling due to the effect of piling leftover insulation. Advanced framing assumes full and even depth of insulation extending to the outside edge of exterior walls. Advanced framing does not change from the default value.

U-factors for flat ceilings below vented attics with standard framing may be modified with the following table:

Roof Pitch	U-Factor for Standard Framing	
	R-30	R-38
4/12	0.036	0.031
5/12	0.035	0.030
6/12	0.034	0.029
7/12	0.034	0.029
8/12	0.034	0.028
9/12	0.034	0.028
10/12	0.033	0.028
11/12	0.033	0.027
12/12	0.033	0.027

Vented scissored truss attics assume a ceiling pitch of 2/12 with a roof pitch of either 4/12 or 5/12. Unbaffled standard framed scissored truss attics are assumed to have a void fraction of 0.016.

Vaulted Ceilings: Insulation is assumed to be fiberglass batts installed in roof joist cavities. In the vented case, at least 1.5-inches between the top of the batts and the underside of the roof sheathing is left open for ventilation in each cavity. A ventilation rate of three air changes per hour is assumed. In the unvented or dense pack case, the ceiling cavity is assumed to be fully packed with insulation, leaving no space for ventilation.

Roof Decks: Rigid insulation is applied to the top of roof decking with no space left for ventilation. Roofing materials are attached directly on top of the insulation. Framing members are often left exposed on the interior side.

Metal Truss Framing: Overall system tested values for the roof/ceiling U_o for metal framed truss assemblies from approved laboratories shall be used, when such data is acceptable to the building official.

Alternatively, the U_o for roof/ceiling assemblies using metal truss framing may be obtained from Tables 20-7A, 20-7B, 20-7C, 20-7D and 20-7E.

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**TABLE 20-7
Default U-factors for Ceilings**

Ceilings Below Vented Attics	Standard Frame	Advanced Frame
Flat Ceiling	Baffled	
R-19	0.049	0.047
R-30	0.036	0.032
R-38	0.031	0.026
R-49	0.027	0.020
R-60	0.025	0.017
Scissors Truss		
R-30 (4/12 roof pitch)	0.043	0.031
R-38 (4/12 roof pitch)	0.040	0.025
R-49 (4/12 roof pitch)	0.038	0.020
R-30 (5/12 roof pitch)	0.039	0.032
R-38 (5/12 roof pitch)	0.035	0.026
R-49 (5/12 roof pitch)	0.032	0.020

Vaulted Ceilings	16" O.C.	24" O.C.
Vented		
R-19 2x10 joist	0.049	0.048
R-30 2x12 joist	0.034	0.033
R-38 2x14 joist	0.027	0.027
Unvented		
R-30 2x10 joist	0.034	0.033
R-38 2x12 joist	0.029	0.027
R-21 + R-21 2x12 joist	0.026	0.025

Roof Deck	U-factor
R-15 Rigid Insulation	0.063
R-21 Rigid Insulation	0.045
R-25 Rigid Insulation	0.038
R-30 Rigid Insulation	0.032
R-38 Rigid Insulation	0.025
R-50 Rigid Insulation	0.019

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Table 20-7A
Steel Truss¹ Framed Ceiling U_o

Cavity R-value	Truss Span (ft)												
	12	14	16	18	20	22	24	26	28	30	32	34	36
19	0.1075	0.0991	0.0928	0.0878	0.0839	0.0807	0.0780	0.0757	0.0737	0.0720	0.0706	0.0693	0.0681
30	0.0907	0.0823	0.0760	0.0710	0.0671	0.0638	0.0612	0.0589	0.0569	0.0552	0.0538	0.0525	0.0513
38	0.0844	0.0759	0.0696	0.0647	0.0607	0.0575	0.0548	0.0525	0.0506	0.0489	0.0474	0.0461	0.0449
49	0.0789	0.0704	0.0641	0.0592	0.0552	0.0520	0.0493	0.0470	0.0451	0.0434	0.0419	0.0406	0.0395

Table 20-7B
Steel Truss¹ Framed Ceiling U_o with R-3 Sheathing²

Cavity R-value	Truss Span (ft)												
	12	14	16	18	20	22	24	26	28	30	32	34	36
19	0.0809	0.0763	0.0728	0.0701	0.0679	0.0661	0.0647	0.0634	0.0623	0.0614	0.0606	0.0599	0.0592
30	0.0641	0.0595	0.0560	0.0533	0.0511	0.0493	0.0478	0.0466	0.0455	0.0446	0.0438	0.0431	0.0424
38	0.0577	0.0531	0.0496	0.0469	0.0447	0.0430	0.0415	0.0402	0.0392	0.0382	0.0374	0.0367	0.0361
49	0.0523	0.0476	0.0441	0.0414	0.0393	0.0375	0.0360	0.0348	0.0337	0.0328	0.0319	0.0312	0.0306

Table 20-7C
Steel Truss¹ Framed Ceiling U_o with R-5 Sheathing²

Cavity R-value	Truss Span (ft)												
	12	14	16	18	20	22	24	26	28	30	32	34	36
19	0.0732	0.0697	0.0670	0.0649	0.0633	0.0619	0.0608	0.0598	0.0590	0.0583	0.0577	0.0571	0.0567
30	0.0564	0.0529	0.0502	0.0481	0.0465	0.0451	0.0440	0.0430	0.0422	0.0415	0.0409	0.0403	0.0399
38	0.0501	0.0465	0.0438	0.0418	0.0401	0.0388	0.0376	0.0367	0.0359	0.0351	0.0345	0.0340	0.0335
49	0.0446	0.0410	0.0384	0.0363	0.0346	0.0333	0.0322	0.0312	0.0304	0.0297	0.0291	0.0285	0.0280

Table 20-7D
Steel Truss¹ Framed Ceiling U_o with R-10 Sheathing²

Cavity R-value	Truss Span (ft)												
	12	14	16	18	20	22	24	26	28	30	32	34	36
19	0.0626	0.0606	0.0590	0.0578	0.0569	0.0561	0.0555	0.0549	0.0545	0.0541	0.0537	0.0534	0.0531
30	0.0458	0.0437	0.0422	0.0410	0.0401	0.0393	0.0387	0.0381	0.0377	0.0373	0.0369	0.0366	0.0363
38	0.0394	0.0374	0.0359	0.0347	0.0337	0.0330	0.0323	0.0318	0.0313	0.0309	0.0305	0.0302	0.0299
49	0.0339	0.0319	0.0304	0.0292	0.0283	0.0275	0.0268	0.0263	0.0258	0.0254	0.0251	0.0247	0.0245

Table 20-7E
Steel Truss¹ Framed Ceiling U_o with R-15 Sheathing²

Cavity R-value	Truss Span (ft)												
	12	14	16	18	20	22	24	26	28	30	32	34	36
19	0.0561	0.0550	0.0541	0.0535	0.0530	0.0526	0.0522	0.0519	0.0517	0.0515	0.0513	0.0511	0.0509
30	0.0393	0.0382	0.0373	0.0367	0.0362	0.0358	0.0354	0.0351	0.0349	0.0347	0.0345	0.0343	0.0341
38	0.0329	0.0318	0.0310	0.0303	0.0298	0.0294	0.0291	0.0288	0.0285	0.0283	0.0281	0.0279	0.0278
49	0.0274	0.0263	0.0255	0.0249	0.0244	0.0239	0.0236	0.0233	0.0230	0.0228	0.0226	0.0225	0.0223

1 - Assembly values based on 24 inch on center truss spacing; 11 Truss member connections penetrating insulation (4 at the eaves, 7 in the interior space); ½ inch drywall ceiling; all truss members are 2x4 "C" channels with a solid web.

2 - Ceiling sheathing installed between bottom chord and drywall.

AMENDATORY SECTION (Amending WSR 93-21-052, filed 10/18/93, effective 4/1/94)

WAC 51-11-99903 Section 3—Specific modeling assumptions.

The specific modeling assumptions consist of methods and assumptions for calculating the standard energy consumption for the standard building and the proposed energy

consumption of the proposed design. In order to maintain consistency between the standard and the proposed design energy consumptions, the input assumptions in this section shall be used.

"Prescribed" assumptions shall be used without variation. "Default" assumptions shall be used unless the designer can demonstrate that a different assumption better charac-

terizes the building's use over its expected life. Any modification of a default assumption shall be used in modeling both the standard building and the proposed design unless the designer demonstrates a clear cause to do otherwise.

3.1 Orientation and Shape: The standard building shall consist of the same number of stories and gross floor area for each story as the proposed design. Each floor shall be oriented exactly as the proposed design. The geometric form shall be the same as the proposed design.

3.2 Internal Loads: Internal loads shall be modeled as noted in the following parts of Section 3.2. The systems specified for calculating the standard energy consumption in Section 3.2 are intended only as constraints in calculating the consumption. They are not intended as requirements or recommendations for systems to be used in the proposed building or for the calculation of the proposed energy consumption.

3.2.1 Occupancy: Occupancy schedules shall be default assumptions. The same assumptions shall be made in computing proposed energy consumption as were used in calculating the standard energy consumption. Occupancy levels vary by building type and time of day. Table 3-1 establishes the density presented as ft²/person of conditioned floor area that will be used by each building type. Table 3-2 establishes the percentage of the people that are in the building by hours of the day for each building type.

3.2.2 Lighting: The interior and exterior lighting power allowance for calculating the standard energy consumption shall be determined from Sections 1531 and 1532. The lighting power used to calculate the proposed energy consumption shall be the actual lighting power of the proposed lighting design. Exempt lighting in the standard design shall be equal to the exempt lighting in the proposed design.

Lighting levels in buildings vary based on the type of uses within buildings, by area and by time of day. Table 3-2 contains the lighting energy profiles which establish the percentage of the lighting load that is switched ON in each prototype or reference building by hour of the day. These profiles are default assumptions and can be changed if required when calculating the standard energy consumption to provide, for example, a 12 hour rather than an 8 hour work day or to reflect the use of automatic lighting controls. The lighting schedules used in the standard and proposed designs shall be identical and shall reflect the type of controls to be installed in the proposed design. The controls in the proposed design shall comply with the requirements in Section 1513 and no credit shall be given for the use of any additional controls, automatic or otherwise.

3.2.3 Receptacle: Receptacle loads and profiles are default assumptions. The same assumptions shall be made in calculating proposed energy consumption as were used in calculating the standard energy consumption. Receptacle loads include all general service loads that are typical in a building. These loads should include additional process electrical usage but exclude HVAC primary or auxiliary electrical usage. Table 3-1 establishes the density in W/ft² to be used. The receptacle energy profiles shall be the same

as the lighting energy profiles in Table 3-2. This profile establishes the percentage of the receptacle load that is switched ON by hour of the day and by building type.

3.3 Envelope

3.3.1 Insulation and Glazing: Glazing area and U-factor of the standard building envelope shall be determined by using the Target UA requirements of Equation 13-1 and U-factor values in Table 13-1 or 13-2. The glazing solar heat gain coefficient (SHGC) or shading coefficient of the standard building shall be the lesser of 0.65 and the SHGC required by Table 13-1 or 13-2 for the vertical or overhead glazing area for the appropriate wall type. The opaque area U-factors of the standard building shall be determined by using the Target UA requirements from Equation 13-1 including the appropriate mass for walls. The insulation characteristics and glazing area are prescribed assumptions for the standard building for calculating the standard energy consumption. In the calculation of the proposed energy consumption of the proposed design, the envelope characteristics of the proposed design shall be used. The standard design shall use the maximum glazing areas listed in Tables 13-1 or 13-2 for the appropriate use. The distribution of vertical glazing in the gross wall area of the standard design shall be equal to the distribution of vertical glazing in the proposed design or shall constitute an equal percentage of gross wall area on all sides of the standard building. The distribution of overhead glazing in the gross roof/ceiling area of the standard design shall be equal to the distribution of overhead glazing in the proposed design. The distribution of doors in the gross opaque wall area of the standard design shall be identical to the distribution of doors in the proposed design.

3.3.2 Infiltration: For standard and proposed buildings, infiltration assumptions shall be equal.

3.3.3 Envelope and Ground Absorptivities: For the standard building, absorptivity assumptions shall be default assumptions for computing the standard energy consumption and default assumptions for computing the proposed energy consumption. The solar absorptivity of opaque elements of the building envelope shall be assumed to be 70 percent. The solar absorptivity of ground surfaces shall be assumed to be 80 percent (20 percent reflectivity).

3.3.4 Window Treatment: No draperies or blinds shall be modeled for the standard or proposed building.

3.3.5 Shading: For standard building and the proposed design, shading by permanent structures and terrain shall be taken into account for computing energy consumption whether or not these features are located on the building site. A permanent fixture is one that is likely to remain for the life of the proposed design. Credit may be taken for external shading devices that are part of the proposed design.

3.4 HVAC Systems and Equipment: For the standard building, the HVAC system used shall be the system type used in the proposed design. If the proposed HVAC system type does not comply with Sections 1432 through 1438, the standard design system shall comply in all respects with those sections.

Exception: When approved by the building official, a prototype HVAC system may be used, if the proposed design system cannot be modified to comply with Sections 1422 and

1432 through 1438, as a standard design. Use of prototype HVAC systems shall only be permitted for the building types listed below. For mixed-use buildings, the floor space of each building type is allocated within the floor space of the standard building. The specifications and requirements for the HVAC systems of prototype buildings shall be those in Table 3-3.

- | | |
|-------------------------|-------------------------|
| 1. assembly | 6. restaurant |
| 2. health/institutional | 7. retail (mercantile) |
| 3. hotel/motel | 8. school (educational) |
| 4. light manufacturing | 9. warehouse (storage) |
| 5. office (business) | |

3.4.1 HVAC Zones: HVAC zones for calculating the standard energy consumption and proposed energy consumption shall consist of at least four perimeter and one interior zone per floor, with at least one perimeter zone facing each orientation. The perimeter zones shall be fifteen feet in width or one-third the narrow dimension of the building when this dimension is between 30 and 45 feet inclusive or half the narrow dimension of the building when this dimension is less than thirty feet.

Exceptions:

1. Building types such as assembly or warehouse may be modeled as a single zone if there is only one space.
2. Thermally similar zones, such as those facing one orientation on different floors, may be grouped together for the purposes of either the standard or proposed building simulation.

3.4.2 Process Equipment Sizing: Process sensible and latent loads shall be equal in calculating both the standard energy consumption and the proposed energy consumption. The designer shall document the installation of process equipment and the size of process loads.

3.4.3 HVAC Equipment Sizing: The equipment shall be sized to include the capacity to meet the process loads. For calculating the proposed energy consumption, actual air flow rates and installed equipment size shall be used in the simulation. Equipment sizing in the simulation of the proposed design shall correspond to the equipment intended to be selected for the design and the designer shall not use equipment sized automatically by the simulation tool.

Equipment sizing for the standard design shall be based on the same as the proposed design or lesser sizing ratio of installed system capacity to the design load for heating and for cooling.

Chilled water systems for the standard building shall be modeled using a reciprocating chiller for systems with total cooling capacities less than 175 tons, and centrifugal chillers for systems with cooling capacities of 175 tons or greater. For systems with cooling capacities of 600 tons or more the standard energy consumption shall be calculated using two centrifugal chillers, lead/lag controlled. Chilled water shall be assumed to be controlled at a constant 44 degree F temperature rise, from 44 degrees F to 56 degrees F, operating at 65 percent combined impeller and motor efficiency. Condenser water pumps shall be sized using a 10 degree F temperature rise, operating at 60 percent combined impeller and motor efficiency. The cooling tower shall be an open circuit, centrifugal blower type sized for the larger of 85 degrees F leaving water temperature or 10 degrees F approach to design wetbulb temperature. The tower shall be controlled to provide a 65 degrees F leaving water tempera-

ture whenever weather conditions permit, floating up to design leaving water temperature at design conditions.

3.4.4 Variable Speed: The energy of the combined fan system per air volume at design conditions (w/cfm) of the proposed design shall be equal to that of the standard design.

Variable air volume fan systems in the standard building shall be variable speed.

3.5 Service Water Heating: The service water heating loads for prototype buildings are defined in terms of Btu/person-hour in Table 3-1. The values in the table refer to energy content of the heated water. The service water heating loads from Table 3-1 are default for all buildings. The same service-water-heating load assumptions shall be made in calculating proposed energy consumption as were used in calculating the standard energy consumption. The service water heating system for the standard building shall be modeled as closely as possible as if it were designed in accordance with the ASHRAE Handbook, ((1987)) 1995 HVAC Systems and Applications Volume and meeting all the requirements of Sections 1440 through 1442.

3.6 Controls

3.6.1: All occupied conditioned spaces in standard and proposed design buildings in all climates shall be simulated as being both heated and cooled.

Exceptions:

1. If a building or portion of a building is to be provided with only heating or cooling, both the standard building and the proposed design shall be simulated using the same assumptions.
2. If warehouses are not intended to be mechanically cooled, both the standard and proposed energy consumption shall be modeled assuming no mechanical cooling.

3.6.2: Space temperature controls for the standard building, shall be set at 70 degrees F for space heating and 75 degrees F for space cooling, with a deadband in accordance with Section 1412.2. The system shall be OFF during off-hours according to the appropriate schedule in Table 3-2, except that the heating system shall cycle ON if any space should drop below the night setback setting 55 degrees F. There shall be no similar setpoint during the cooling season. Lesser deadband ranges may be used in calculating the proposed energy consumption.

Exceptions:

1. Setback shall not be modeled in determining either the standard or proposed energy consumption if setback is not realistic for the proposed design such as a facility being operated 24 hours/day. For instance, health facilities need not have night setback during the heating season.
2. If deadband controls are not to be installed, the proposed energy consumption shall be calculated with both heating and cooling thermostat setpoints set to the same value between 70 degrees F and 75 degrees F inclusive, assumed to be constant for the year.

3.6.3: When providing for outdoor air ventilation when calculating the standard energy consumption, controls shall be assumed to close the outside air intake to reduce the flow of outside air to 0.0 cfm during "setback" and "unoccupied" periods. Ventilation using inside air may still be required to maintain scheduled setback temperature. Outside air ventilation, during occupied periods, shall be as required by the Washington State Ventilation and Indoor Air Quality Code chapter 51-13 WAC.

3.6.4: If humidification is to be used in the proposed design, the same level of humidification and system type shall be used in the standard building.

TABLE 3-1
Acceptable Occupancy Densities, Receptacle Power Densities and Service Hot Water Consumption¹

Building Type	Occupancy Density ² Sq. Ft./Person (Btu/h·ft ²)	Receptacle Power Density ³ Watts/Sq. Ft. (Btu/h·ft ²)	Service Hot Water Quantities ⁴ Btu/h·person
Assembly	50 (4.60)	0.25 (0.85)	215
Health/Institutional	200 (1.15)	1.00 (3.41)	135
Hotel/Motel	250 (0.92)	0.25 (0.85)	1,110
Light Manufacturing	750 (0.31)	0.20 (0.68)	225
Office	275 (0.84)	0.75 (2.56)	175
Parking Garage	N.A.	N.A.	N.A.
Restaurant	100 (2.30)	0.10 (0.34)	390
Retail	300 (0.77)	0.25 (0.85)	135
School	75 (3.07)	0.50 (1.71)	215
Warehouse	15,000 (0.02)	0.10 (0.34)	225

1. The occupancy densities, receptacle power densities and service hot water consumption values are from ASHRAE Standard 90.1-1989 and addenda.
2. Values are in square feet of conditioned floor area per person. Heat generation in Btu per person per hour is 230 sensible and 190 latent. Figures in parentheses are equivalent Btu per hour per square foot.
3. Values are in Watts per square foot of conditioned floor area. Figures in parentheses are equivalent Btu per hour per square foot. These values are the minimum acceptable. If other process loads are not input (such as for computers, cooking, refrigeration, etc.), it is recommended that receptacle power densities be increased until total process energy consumption is equivalent to 25% of the total.
4. Values are in Btu per person per hour.

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TABLE 3-2A
Assembly Occupancy¹

Hour of Day (time)	Schedule for Occupancy			Schedule for Lighting Receptacle			Schedule for HVAC System			Schedule for Service Hot Water			Schedule for Elevator		
	Percent of Maximum Load			Percent of Maximum Load						Percent of Maximum Load			Percent of Maximum Load		
	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun
1 (12-1am)	0	0	0	5	5	5	off	off	off	0	0	0	0	0	0
2 (1-2am)	0	0	0	5	5	5	off	off	off	0	0	0	0	0	0
3 (2-3am)	0	0	0	5	5	5	off	off	off	0	0	0	0	0	0
4 (3-4am)	0	0	0	5	5	5	off	off	off	0	0	0	0	0	0
5 (4-5am)	0	0	0	5	5	5	on	off	off	0	0	0	0	0	0
6 (5-6am)	0	0	0	5	5	5	on	on	on	0	0	0	0	0	0
7 (6-7am)	0	0	0	40	5	5	on	on	on	0	0	0	0	0	0
8 (7-8am)	0	0	0	40	30	30	on	on	on	0	0	0	0	0	0
9 (8-9am)	20	20	10	40	30	30	on	on	on	5	5	5	0	0	0
10 (9-10am)	20	20	10	75	50	30	on	on	on	5	5	5	0	0	0
11 (10-11am)	20	20	10	75	50	30	on	on	on	5	5	5	0	0	0
12 (11-12pm)	80	60	10	75	50	30	on	on	on	35	20	10	0	0	0
13 (12-1pm)	80	60	10	75	50	65	on	on	on	5	0	0	0	0	0
14 (1-2pm)	80	60	70	75	50	65	on	on	on	5	0	0	0	0	0
15 (2-3pm)	80	60	70	75	50	65	on	on	on	5	0	0	0	0	0
16 (3-4pm)	80	60	70	75	50	65	on	on	on	5	0	0	0	0	0
17 (4-5pm)	80	60	70	75	50	65	on	on	on	5	0	0	0	0	0
18 (5-6pm)	80	60	70	75	50	65	on	on	on	0	0	0	0	0	0
19 (6-7pm)	20	60	70	75	50	65	on	on	on	0	65	65	0	0	0
20 (7-8pm)	20	60	70	75	50	65	on	on	on	0	30	30	0	0	0
21 (8-9pm)	20	60	70	75	50	65	on	on	on	0	0	0	0	0	0
22 (9-10pm)	20	80	70	75	50	65	on	on	on	0	0	0	0	0	0
23 (10-11pm)	10	10	20	25	50	5	on	on	on	0	0	0	0	0	0
24 (11-12am)	0	0	0	5	5	5	off	off	off	0	0	0	0	0	0
Total/Day	710	750	700	1155	800	845	1800	1700	1700	70	125	115	0	0	0
Total/Week		50.50 hours			74.20 hours			124 hours			5.9 hours		0	hours	
Total/Year		2633 hours			3869 hours			6465 hours			308 hours		0	hours	

Wk = Weekday

- Schedules for occupancy, lighting, receptacle, HVAC system and service hot water are from ASHRAE Standard 90.1-1989 and addendums, except that 5% emergency lighting has been added for all off hours. Elevator schedules, except for restaurants, are from the U.S. Department of Energy Standard Evaluation Techniques except changed to 0% when occupancy is 0%. THESE VALUES MAY BE USED ONLY IF ACTUAL SCHEDULES ARE NOT KNOWN.

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TABLE 3-2B
Health Occupancy¹

Hour of Day (time)	Schedule for Occupancy			Schedule for Lighting Receptacle			Schedule for HVAC System			Schedule for Service Hot Water			Schedule for Elevator		
	Percent of Maximum Load			Percent of Maximum Load						Percent of Maximum Load			Percent of Maximum Load		
	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun
1 (12-1am)	0	0	0	10	10	5	on	on	on	1	1	1	0	0	0
2 (1-2am)	0	0	0	10	10	5	on	on	on	1	1	1	0	0	0
3 (2-3am)	0	0	0	10	10	5	on	on	on	1	1	1	0	0	0
4 (3-4am)	0	0	0	10	10	5	on	on	on	1	1	1	0	0	0
5 (4-5am)	0	0	0	10	10	5	on	on	on	1	1	1	0	0	0
6 (5-6am)	0	0	0	10	10	5	on	on	on	1	1	1	0	0	0
7 (6-7am)	0	0	0	10	10	5	on	on	on	1	1	1	0	0	0
8 (7-8am)	10	10	0	50	20	5	on	on	on	17	1	1	2	2	0
9 (8-9am)	50	30	5	90	40	10	on	on	on	58	20	1	75	46	2
10 (9-10am)	80	40	5	90	40	10	on	on	on	66	28	1	100	70	2
11 (10-11am)	80	40	5	90	40	10	on	on	on	78	30	1	100	70	2
12 (11-12pm)	80	40	5	90	40	10	on	on	on	82	30	1	100	70	2
13 (12-1pm)	80	40	5	90	40	10	on	on	on	71	24	1	75	51	2
14 (1-2pm)	80	40	5	90	40	10	on	on	on	82	24	1	100	51	2
15 (2-3pm)	80	40	5	90	40	10	on	on	on	78	23	1	100	51	2
16 (3-4pm)	80	40	5	90	40	10	on	on	on	74	23	1	100	51	2
17 (4-5pm)	80	40	0	30	40	5	on	on	on	63	23	1	100	51	0
18 (5-6pm)	50	10	0	30	40	5	on	on	on	41	10	1	100	25	0
19 (6-7pm)	30	10	0	30	10	5	on	on	on	18	1	1	52	2	0
20 (7-8pm)	30	0	0	30	10	5	on	on	on	18	1	1	52	0	0
21 (8-9pm)	20	0	0	30	10	5	on	on	on	18	1	1	52	0	0
22 (9-10pm)	20	0	0	30	10	5	on	on	on	10	1	1	28	0	0
23 (10-11pm)	0	0	0	30	10	5	on	on	on	1	1	1	0	0	0
24 (11-12am)	0	0	0	10	10	5	on	on	on	1	1	1	0	0	0
Total/Day	850	380	40	1060	550	160	2400	2400	2400	783	249	24	1136	540	16
Total/Week	46.70 hours			60.10 hours			168 hours			41.88 hours			62.36 hours		
Total/Year	2435 hours			3134 hours			8760 hours			2148 hours			3251 hours		

Wk = Weekday

1. Schedules for occupancy, lighting, receptacle, HVAC system and service hot water are from ASHRAE Standard 90.1-1989 and addendums, except that 5% emergency lighting has been added for all off hours. Elevator schedules, except for restaurants, are from the U.S. Department of Energy Standard Evaluation Techniques except changed to 0% when occupancy is 0%. THESE VALUES MAY BE USED ONLY IF ACTUAL SCHEDULES ARE NOT KNOWN.

PERMANENT

TABLE 3-2C
Hotel/Motel Occupancy¹

Hour of Day (time)	Schedule for Occupancy			Schedule for Lighting Receptacle			Schedule for HVAC System			Schedule for Service Hot Water			Schedule for Elevator		
	Percent of Maximum Load			Percent of Maximum Load						Percent of Maximum Load			Percent of Maximum Load		
	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun
1 (12-1am)	90	90	70	20	20	30	on	on	on	20	20	25	40	44	55
2 (1-2am)	90	90	70	15	20	30	on	on	on	15	15	20	33	35	55
3 (2-3am)	90	90	70	10	10	20	on	on	on	15	15	20	33	35	43
4 (3-4am)	90	90	70	10	10	20	on	on	on	15	15	20	33	35	43
5 (4-5am)	90	90	70	10	10	20	on	on	on	20	20	20	33	35	43
6 (5-6am)	90	90	70	20	10	20	on	on	on	25	25	30	33	35	43
7 (6-7am)	70	70	70	40	30	30	on	on	on	50	40	50	42	40	52
8 (7-8am)	40	50	70	50	30	40	on	on	on	60	50	50	42	32	52
9 (8-9am)	40	50	50	40	40	40	on	on	on	55	50	50	52	45	65
10 (9-10am)	20	30	50	40	40	30	on	on	on	45	50	55	52	45	65
11 (10-11am)	20	30	50	25	30	30	on	on	on	40	45	50	40	42	53
12 (11-12pm)	20	30	30	25	25	30	on	on	on	45	50	50	51	60	60
13 (12-1pm)	20	30	30	25	25	30	on	on	on	40	50	40	51	65	53
14 (1-2pm)	20	30	20	25	25	20	on	on	on	35	45	40	51	65	51
15 (2-3pm)	20	30	20	25	25	20	on	on	on	30	40	30	51	65	50
16 (3-4pm)	30	30	20	25	25	20	on	on	on	30	40	30	51	65	44
17 (4-5pm)	50	30	30	25	25	20	on	on	on	30	35	30	63	65	64
18 (5-6pm)	50	50	40	25	25	20	on	on	on	40	40	40	80	75	62
19 (6-7pm)	50	60	40	60	60	50	on	on	on	55	55	50	86	80	65
20 (7-8pm)	70	60	60	80	70	70	on	on	on	60	55	50	70	80	63
21 (8-9pm)	70	60	60	90	70	80	on	on	on	50	50	40	70	75	63
22 (9-10pm)	80	70	80	80	70	60	on	on	on	55	55	50	70	75	63
23 (10-11pm)	90	70	80	60	60	50	on	on	on	45	40	40	45	55	40
24 (11-12am)	90	70	80	30	30	30	on	on	on	25	30	20	45	55	40
Total/Day	1390	1390	1300	855	785	810	2400	2400	2400	915	930	900	1217	1303	1287
Total/Week	96.40 hours			58.70 hours			168.0 hours			64.05 hours			86.75 hours		
Total/Year	5026 hours			3061 hours			8760 hours			3340 hours			4523 hours		

Wk = Weekday

- Schedules for occupancy, lighting, receptacle, HVAC system and service hot water are from ASHRAE Standard 90.1-1989 and addendums, except that 5% emergency lighting has been added for all off hours. Elevator schedules, except for restaurants, are from the U.S. Department of Energy Standard Evaluation Techniques except changed to 0% when occupancy is 0%. THESE VALUES MAY BE USED ONLY IF ACTUAL SCHEDULES ARE NOT KNOWN.

PERMANENT

TABLE 3-2D
Light Manufacturing Occupancy¹

Hour of Day (time)	Schedule for Occupancy			Schedule for Lighting Receptacle			Schedule for HVAC System			Schedule for Service Hot Water			Schedule for Elevator		
	Percent of Maximum Load			Percent of Maximum Load						Percent of Maximum Load			Percent of Maximum Load		
	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun
1 (12-1am)	0	0	0	5	5	5	off	off	off	5	5	4	0	0	0
2 (1-2am)	0	0	0	5	5	5	off	off	off	5	5	4	0	0	0
3 (2-3am)	0	0	0	5	5	5	off	off	off	5	5	4	0	0	0
4 (3-4am)	0	0	0	5	5	5	off	off	off	5	5	4	0	0	0
5 (4-5am)	0	0	0	5	5	5	off	off	off	5	5	4	0	0	0
6 (5-6am)	0	0	0	10	5	5	off	off	off	8	8	7	0	0	0
7 (6-7am)	10	10	5	10	10	5	on	on	off	7	7	4	0	0	0
8 (7-8am)	20	10	5	30	10	5	on	on	off	19	11	4	35	16	0
9 (8-9am)	95	30	5	90	30	5	on	on	off	35	15	4	69	14	0
10 (9-10am)	95	30	5	90	30	5	on	on	off	38	21	4	43	21	0
11 (10-11am)	95	30	5	90	30	5	on	on	off	39	19	4	37	18	0
12 (11-12pm)	95	30	5	90	30	5	on	on	off	47	23	6	43	25	0
13 (12-1pm)	50	10	5	80	15	5	on	on	off	57	20	6	58	21	0
14 (1-2pm)	95	10	5	90	15	5	on	on	off	54	19	9	48	13	0
15 (2-3pm)	95	10	5	90	15	5	on	on	off	34	15	6	37	8	0
16 (3-4pm)	95	10	5	90	15	5	on	on	off	33	12	4	37	4	0
17 (4-5pm)	95	10	5	90	15	5	on	on	off	44	14	4	46	5	0
18 (5-6pm)	30	5	5	50	5	5	on	on	off	26	7	4	62	6	0
19 (6-7pm)	10	5	0	30	5	5	on	off	off	21	7	4	20	0	0
20 (7-8pm)	10	0	0	30	5	5	on	off	off	15	7	4	12	0	0
21 (8-9pm)	10	0	0	20	5	5	on	off	off	17	7	4	4	0	0
22 (9-10pm)	10	0	0	20	5	5	on	off	off	8	9	7	4	0	0
23 (10-11pm)	5	0	0	10	5	5	off	off	off	5	5	4	0	0	0
24 (11-12am)	5	0	0	5	5	5	off	off	off	5	5	4	0	0	0
Total/Day	920	200	60	1040	280	120	1600	1200	0	537	256	113	555	151	0
Total/Week	48.60 hours			56.00 hours			92.00 hours			30.54 hours			29.26 hours		
Total/Year	2534 hours			2920 hours			4797 hours			1592 hours			1526 hours		

Wk = Weekday

- Schedules for occupancy, lighting, receptacle, HVAC system and service hot water are from ASHRAE Standard 90.1-1989 and addendums, except that 5% emergency lighting has been added for all off hours. Elevator schedules, except for restaurants, are from the U.S. Department of Energy Standard Evaluation Techniques except changed to 0% when occupancy is 0%. THESE VALUES MAY BE USED ONLY IF ACTUAL SCHEDULES ARE NOT KNOWN.

PERMANENT

TABLE 3-2E
Office Occupancy¹

Hour of Day (time)	Schedule for Occupancy			Schedule for Lighting Receptacle			Schedule for HVAC System			Schedule for Service Hot Water			Schedule for Elevator		
	Percent of Maximum Load			Percent of Maximum Load						Percent of Maximum Load			Percent of Maximum Load		
	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun
1 (12-1am)	0	0	0	5	5	5	off	off	off	5	5	4	0	0	0
2 (1-2am)	0	0	0	5	5	5	off	off	off	5	5	4	0	0	0
3 (2-3am)	0	0	0	5	5	5	off	off	off	5	5	4	0	0	0
4 (3-4am)	0	0	0	5	5	5	off	off	off	5	5	4	0	0	0
5 (4-5am)	0	0	0	5	5	5	off	off	off	5	5	4	0	0	0
6 (5-6am)	0	0	0	10	5	5	off	off	off	8	8	7	0	0	0
7 (6-7am)	10	10	5	10	10	5	on	on	off	7	7	4	0	0	0
8 (7-8am)	20	10	5	30	10	5	on	on	off	19	11	4	35	16	0
9 (8-9am)	95	30	5	90	30	5	on	on	off	35	15	4	69	14	0
10 (9-10am)	95	30	5	90	30	5	on	on	off	38	21	4	43	21	0
11 (10-11am)	95	30	5	90	30	5	on	on	off	39	19	4	37	18	0
12 (11-12pm)	95	30	5	90	30	5	on	on	off	47	23	6	43	25	0
13 (12-1pm)	50	10	5	80	15	5	on	on	off	57	20	6	58	21	0
14 (1-2pm)	95	10	5	90	15	5	on	on	off	54	19	9	48	13	0
15 (2-3pm)	95	10	5	90	15	5	on	on	off	34	15	6	37	8	0
16 (3-4pm)	95	10	5	90	15	5	on	on	off	33	12	4	37	4	0
17 (4-5pm)	95	10	5	90	15	5	on	on	off	44	14	4	46	5	0
18 (5-6pm)	30	5	5	50	5	5	on	on	off	26	7	4	62	6	0
19 (6-7pm)	10	5	0	30	5	5	on	off	off	21	7	4	20	0	0
20 (7-8pm)	10	0	0	30	5	5	on	off	off	15	7	4	12	0	0
21 (8-9pm)	10	0	0	20	5	5	on	off	off	17	7	4	4	0	0
22 (9-10pm)	10	0	0	20	5	5	on	off	off	8	9	7	4	0	0
23 (10-11pm)	5	0	0	10	5	5	off	off	off	5	5	4	0	0	0
24 (11-12am)	5	0	0	5	5	5	off	off	off	5	5	4	0	0	0
Total/Day	920	200	60	1040	280	120	1600	1200	0	537	256	113	555	151	0
Total/Week	48.60 hours			56.00 hours			92.00 hours			30.54 hours			29.26 hours		
Total/Year	2534 hours			2920 hours			4797 hours			1592 hours			1526 hours		

Wk = Weekday

1. Schedules for occupancy, lighting, receptacle, HVAC system and service hot water are from ASHRAE Standard 90.1-1989 and addendums, except that 5% emergency lighting has been added for all off hours. Elevator schedules, except for restaurants, are from the U.S. Department of Energy Standard Evaluation Techniques except changed to 0% when occupancy is 0%. THESE VALUES MAY BE USED ONLY IF ACTUAL SCHEDULES ARE NOT KNOWN.

PERMANENT

TABLE 3-2F
Parking Garage Occupancy¹

Hour of Day (time)	Schedule for Occupancy			Schedule for Lighting Receptacle			Schedule for HVAC System			Schedule for Service Hot Water			Schedule for Elevator		
	Percent of Maximum Load			Percent of Maximum Load						Percent of Maximum Load			Percent of Maximum Load		
	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun
1 (12-1am)				100	100	100									
2 (1-2am)				100	100	100									
3 (2-3am)				100	100	100									
4 (3-4am)				100	100	100									
5 (4-5am)				100	100	100									
6 (5-6am)				100	100	100									
7 (6-7am)				100	100	100									
8 (7-8am)				100	100	100									
9 (8-9am)				100	100	100									
10 (9-10am)				100	100	100									
11 (10-11am)				100	100	100				Based on likely use					
12 (11-12pm)			N/A	100	100	100						N/A			
13 (12-1pm)				100	100	100									
14 (1-2pm)				100	100	100									
15 (2-3pm)				100	100	100									
16 (3-4pm)				100	100	100									
17 (4-5pm)				100	100	100									
18 (5-6pm)				100	100	100									
19 (6-7pm)				100	100	100									
20 (7-8pm)				100	100	100									
21 (8-9pm)				100	100	100									
22 (9-10pm)				100	100	100									
23 (10-11pm)				100	100	100									
24 (11-12am)				100	100	100									
Total/Day				2400	2400	2400									
Total/Week										168 hours					
Total/Year										8760 hours					

Wk = Weekday

1. Schedules for occupancy, lighting, receptacle, HVAC system and service hot water are from ASHRAE Standard 90.1-1989 and addendums, except that 5% emergency lighting has been added for all off hours. Elevator schedules, except for restaurants, are from the U.S. Department of Energy Standard Evaluation Techniques except changed to 0% when occupancy is 0%. THESE VALUES MAY BE USED ONLY IF ACTUAL SCHEDULES ARE NOT KNOWN.

PERMANENT

TABLE 3-2G
Restaurant Occupancy¹

Hour of Day (time)	Schedule for Occupancy			Schedule for Lighting Receptacle			Schedule for HVAC System			Schedule for Service Hot Water			Schedule for Elevator		
	Percent of Maximum Load			Percent of Maximum Load						Percent of Maximum Load			Percent of Maximum Load		
	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun
1 (12-1am)	15	30	20	15	20	20	on	on	on	20	20	25	0	0	0
2 (1-2am)	15	25	20	15	15	15	on	on	on	15	15	20	0	0	0
3 (2-3am)	5	5	5	15	15	15	on	on	on	15	15	20	0	0	0
4 (3-4am)	0	0	0	15	15	15	off	off	off	0	0	0	0	0	0
5 (4-5am)	0	0	0	15	15	15	off	off	off	0	0	0	0	0	0
6 (5-6am)	0	0	0	20	15	15	off	off	off	0	0	0	0	0	0
7 (6-7am)	0	0	0	40	30	30	off	off	off	0	0	0	0	0	0
8 (7-8am)	5	0	0	40	30	30	on	off	off	60	0	0	0	0	0
9 (8-9am)	5	0	0	60	60	50	on	off	off	55	0	0	0	0	0
10 (9-10am)	5	5	0	60	60	50	on	on	off	45	50	0	0	0	0
11 (10-11am)	20	20	10	90	80	70	on	on	on	40	45	50	0	0	0
12 (11-12pm)	50	45	20	90	80	70	on	on	on	45	50	50	0	0	0
13 (12-1pm)	80	50	25	90	80	70	on	on	on	40	50	40	0	0	0
14 (1-2pm)	70	50	25	90	80	70	on	on	on	35	45	40	0	0	0
15 (2-3pm)	40	35	15	90	80	70	on	on	on	30	40	30	0	0	0
16 (3-4pm)	20	30	20	90	80	70	on	on	on	30	40	30	0	0	0
17 (4-5pm)	25	30	25	90	80	60	on	on	on	30	35	30	0	0	0
18 (5-6pm)	50	30	35	90	90	60	on	on	on	40	40	40	0	0	0
19 (6-7pm)	80	70	55	90	90	60	on	on	on	55	55	50	0	0	0
20 (7-8pm)	80	90	65	90	90	60	on	on	on	60	55	50	0	0	0
21 (8-9pm)	80	70	70	90	90	60	on	on	on	50	50	40	0	0	0
22 (9-10pm)	50	65	35	90	90	60	on	on	on	55	55	50	0	0	0
23 (10-11pm)	35	55	20	50	50	50	on	on	on	45	40	40	0	0	0
24 (11-12am)	20	35	20	30	30	30	on	on	on	25	30	20	0	0	0
Total/Day	750	740	485	1455	1365	1115	2000	1800	1700	790	730	625	0	0	0
Total/Week		49.75 hours			97.55 hours			135 hours			53.05 hours		0	hours	
Total/Year		2594 hours			5086 hours			7039 hours			2766 hours		0	hours	

Wk = Weekday

1. Schedules for occupancy, lighting, receptacle, HVAC system and service hot water are from ASHRAE Standard 90.1-1989 and addendums, except that 5% emergency lighting has been added for all off hours. Elevator schedules, except for restaurants, are from the U.S. Department of Energy Standard Evaluation Techniques except changed to 0% when occupancy is 0%. THESE VALUES MAY BE USED ONLY IF ACTUAL SCHEDULES ARE NOT KNOWN.

PERMANENT

TABLE 3-2H
Retail Occupancy¹

Hour-of Day (time)	Schedule for Occupancy			Schedule for Lighting Receptacle			Schedule for HVAC System			Schedule for Service Hot Water			Schedule for Elevator		
	Percent of Maximum Load			Percent of Maximum Load						Percent of Maximum Load			Percent of Maximum Load		
	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun
1 (12-1am)	0	0	0	5	5	5	off	off	off	4	11	7	0	0	0
2 (1-2am)	0	0	0	5	5	5	off	off	off	5	10	7	0	0	0
3 (2-3am)	0	0	0	5	5	5	off	off	off	5	8	7	0	0	0
4 (3-4am)	0	0	0	5	5	5	off	off	off	4	6	6	0	0	0
5 (4-5am)	0	0	0	5	5	5	off	off	off	4	6	6	0	0	0
6 (5-6am)	0	0	0	5	5	5	off	off	off	4	6	6	0	0	0
7 (6-7am)	0	0	0	5	5	5	on	on	off	4	7	7	0	0	0
8 (7-8am)	10	10	0	20	10	5	on	on	off	15	20	10	12	9	0
9 (8-9am)	20	20	0	50	30	10	on	on	on	23	24	12	22	21	0
10 (9-10am)	50	50	10	90	60	10	on	on	on	32	27	14	64	56	11
11 (10-11am)	50	60	20	90	90	40	on	on	on	41	42	29	74	66	13
12 (11-12pm)	70	80	20	90	90	40	on	on	on	57	54	31	68	68	35
13 (12-1pm)	70	80	40	90	90	60	on	on	on	62	59	36	68	68	37
14 (1-2pm)	70	80	40	90	90	60	on	on	on	61	60	36	71	69	37
15 (2-3pm)	70	80	40	90	90	60	on	on	on	50	49	34	72	70	39
16 (3-4pm)	80	80	40	90	90	60	on	on	on	45	48	35	72	69	41
17 (4-5pm)	70	80	40	90	90	60	on	on	on	46	47	37	73	66	38
18 (5-6pm)	50	60	20	90	90	40	on	on	off	47	46	34	68	58	34
19 (6-7pm)	50	20	10	60	50	20	on	on	off	42	44	25	68	47	3
20 (7-8pm)	30	20	0	60	30	5	on	on	off	34	36	27	58	43	0
21 (8-9pm)	30	20	0	50	30	5	on	on	off	33	29	21	54	43	0
22 (9-10pm)	0	10	0	20	10	5	off	on	off	23	22	16	0	8	0
23 (10-11pm)	0	0	0	5	5	5	off	off	off	13	16	10	0	0	0
24 (11-12am)	0	0	0	5	5	5	off	off	off	8	13	6	0	0	0
Total/Day	720	750	280	1115	985	525	1500	1600	900	662	690	459	844	761	288
Total/Week		46.30 hours			70.85 hours			100 hours			44.59 hours			52.69 hours	
Total/Year		2414 hours			3694 hours			5214 hours			2325 hours			2747 hours	

Wk = Weekday

1. Schedules for occupancy, lighting, receptacle, HVAC system and service hot water are from ASHRAE Standard 90.1-1989 and addendums, except that 5% emergency lighting has been added for all off hours. Elevator schedules, except for restaurants, are from the U.S. Department of Energy Standard Evaluation Techniques except changed to 0% when occupancy is 0%. THESE VALUES MAY BE USED ONLY IF ACTUAL SCHEDULES ARE NOT KNOWN.

PERMANENT

TABLE 3-2I
School Occupancy¹

Hour of Day (time)	Schedule for Occupancy			Schedule for Lighting Receptacle			Schedule for HVAC System			Schedule for Service Hot Water			Schedule for Elevator		
	Percent of Maximum Load			Percent of Maximum Load						Percent of Maximum Load			Percent of Maximum Load		
	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun
1 (12-1am)	0	0	0	5	5	5	off	off	off	5	3	3	0	0	0
2 (1-2am)	0	0	0	5	5	5	off	off	off	5	3	3	0	0	0
3 (2-3am)	0	0	0	5	5	5	off	off	off	5	3	3	0	0	0
4 (3-4am)	0	0	0	5	5	5	off	off	off	5	3	3	0	0	0
5 (4-5am)	0	0	0	5	5	5	off	off	off	5	3	3	0	0	0
6 (5-6am)	0	0	0	5	5	5	off	off	off	5	3	3	0	0	0
7 (6-7am)	0	0	0	5	5	5	off	off	off	5	3	3	0	0	0
8 (7-8am)	5	0	0	30	5	5	on	off	off	10	3	3	0	0	0
9 (8-9am)	75	10	0	85	15	5	on	on	off	34	3	5	30	0	0
10 (9-10am)	90	10	0	95	15	5	on	on	off	60	5	5	30	0	0
11 (10-11am)	90	10	0	95	15	5	on	on	off	63	5	5	30	0	0
12 (11-12pm)	80	10	0	95	15	5	on	on	off	72	5	5	30	0	0
13 (12-1pm)	80	10	0	80	15	5	on	on	off	79	5	5	30	0	0
14 (1-2pm)	80	0	0	80	5	5	on	off	off	83	3	5	30	0	0
15 (2-3pm)	80	0	0	80	5	5	on	off	off	61	3	3	30	0	0
16 (3-4pm)	45	0	0	70	5	5	on	off	off	65	3	3	15	0	0
17 (4-5pm)	15	0	0	50	5	5	on	off	off	10	3	3	0	0	0
18 (5-6pm)	5	0	0	50	5	5	on	off	off	10	3	3	0	0	0
19 (6-7pm)	15	0	0	35	5	5	on	off	off	19	3	3	0	0	0
20 (7-8pm)	20	0	0	35	5	5	on	off	off	25	3	3	0	0	0
21 (8-9pm)	20	0	0	35	5	5	on	off	off	22	3	3	0	0	0
22 (9-10pm)	10	0	0	30	5	5	on	off	off	22	3	3	0	0	0
23 (10-11pm)	0	0	0	5	5	5	off	off	off	12	3	3	0	0	0
24 (11-12am)	0	0	0	5	5	5	off	off	off	9	3	3	0	0	0
Total/Day	710	50	0	990	170	120	1500	500	0	691	80	84	285	0	0
Total/Week	36.00 hours			52.40 hours			80.00 hours			36.19 hours			14.25 hours		
Total/Year	1877 hours			2732 hours			4171 hours			1887 hours			743 hours		

Wk = Weekday

1. Schedules for occupancy, lighting, receptacle, HVAC system and service hot water are from ASHRAE Standard 90.1-1989 and addendums, except that 5% emergency lighting has been added for all off hours. Elevator schedules, except for restaurants, are from the U.S. Department of Energy Standard Evaluation Techniques except changed to 0% when occupancy is 0%. THESE VALUES MAY BE USED ONLY IF ACTUAL SCHEDULES ARE NOT KNOWN.

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TABLE 3-2J
Warehouse Occupancy¹

Hour of Day (time)	Schedule for Occupancy			Schedule for Lighting Receptacle			Schedule for HVAC System			Schedule for Service Hot Water			Schedule for Elevator		
	Percent of Maximum Load			Percent of Maximum Load						Percent of Maximum Load			Percent of Maximum Load		
	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun	Wk	Sat	Sun
1 (12-1am)	0	0	0	5	5	5	off	off	off	2	2	2	0	0	0
2 (1-2am)	0	0	0	5	5	5	off	off	off	2	2	2	0	0	0
3 (2-3am)	0	0	0	5	5	5	off	off	off	2	2	2	0	0	0
4 (3-4am)	0	0	0	5	5	5	off	off	off	2	2	2	0	0	0
5 (4-5am)	0	0	0	5	5	5	off	off	off	5	2	2	0	0	0
6 (5-6am)	0	0	0	5	5	5	off	off	off	7	2	2	0	0	0
7 (6-7am)	0	0	0	5	5	5	off	off	off	7	2	2	0	0	0
8 (7-8am)	15	0	0	40	5	5	on	off	off	10	2	2	0	0	0
9 (8-9am)	70	20	0	70	8	5	on	on	off	30	6	2	0	0	0
10 (9-10am)	90	20	0	90	24	5	on	on	off	36	12	2	0	0	0
11 (10-11am)	90	20	0	90	24	5	on	on	off	36	12	2	30	0	0
12 (11-12pm)	90	20	0	90	24	5	on	on	off	46	17	2	0	0	0
13 (12-1pm)	50	10	0	80	5	5	on	on	off	57	4	4	0	0	0
14 (1-2pm)	85	10	0	90	5	5	on	on	off	43	4	4	0	0	0
15 (2-3pm)	85	10	0	90	5	5	on	on	off	38	2	2	0	0	0
16 (3-4pm)	85	10	0	90	5	5	on	on	off	40	2	2	40	0	0
17 (4-5pm)	20	0	0	90	5	5	on	off	off	30	2	2	0	0	0
18 (5-6pm)	0	0	0	30	5	5	off	off	off	18	2	2	0	0	0
19 (6-7pm)	0	0	0	5	5	5	off	off	off	3	2	2	0	0	0
20 (7-8pm)	0	0	0	5	5	5	off	off	off	3	2	2	0	0	0
21 (8-9pm)	0	0	0	5	5	5	off	off	off	3	2	2	0	0	0
22 (9-10pm)	0	0	0	5	5	5	off	off	off	3	2	2	0	0	0
23 (10-11pm)	0	0	0	5	5	5	off	off	off	3	2	2	0	0	0
24 (11-12am)	0	0	0	5	5	5	off	off	off	3	2	2	0	0	0
Total/Day	680	120	0	915	180	120	1000	800	0	429	91	52	70	0	0
Total/Week		35.20 hours			48.75 hours			58.00 hours			22.88 hours			3.50 hours	
Total/Year		1835 hours			2542 hours			3024 hours			1193 hours			182 hours	

Wk = Weekday

- Schedules for occupancy, lighting, receptacle, HVAC system and service hot water are from ASHRAE Standard 90.1-1989 and addendums, except that 5% emergency lighting has been added for all off hours. Elevator schedules, except for restaurants, are from the U.S. Department of Energy Standard Evaluation Techniques except changed to 0% when occupancy is 0%. THESE VALUES MAY BE USED ONLY IF ACTUAL SCHEDULES ARE NOT KNOWN.

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TABLE 3-3
HVAC Systems of Prototype Buildings³

Use	System #	Remarks
1. Assembly		
a. Churches (any size)	1	
b. $\leq 50,000 \text{ ft}^2$ or ≤ 3 floors	1 or 3	Note 2
c. $> 50,000 \text{ ft}^2$ or > 3 floors	3	
2. Health		
a. Nursing Home (any size)	2	
b. $\leq 15,000 \text{ ft}^2$	1	
c. $> 15,000 \text{ ft}^2$ and $\leq 50,000 \text{ ft}^2$	4	Note 3
d. $> 50,000 \text{ ft}^2$	5	Note 3, 4
3. Hotel/Motel		
a. ≤ 3 Stories	2	Note 6
b. > 3 Stories	6	Note 7
4. Light Manufacturing	1 or 3	
5. Office		
a. $\leq 20,000 \text{ ft}^2$	1	
b. $> 20,000 \text{ ft}^2$ and either ≤ 3 floors or $\leq 75,000 \text{ ft}^2$	4	
c. $> 75,000 \text{ ft}^2$ or > 3 floors	5	
6. Restaurant	1 or 3	Note 2
7. Retail		
a. $\leq 50,000 \text{ ft}^2$	1 or 3	Note 2
b. $> 50,000 \text{ ft}^2$	4 or 5	Note 2
8. Schools		
a. $\leq 75,000 \text{ ft}^2$ or ≤ 3 floors	1	
b. $> 75,000 \text{ ft}^2$ or > 3 floors	3	
9. Warehouse		Note 5

Footnote to TABLE 3-3: The systems and energy types presented in this table are not intended as requirements or recommendations for the proposed design. Floor areas in the table are the total conditioned floor areas for the listed use in the building. The number of floors indicated in the table is the total number of occupied floors for the listed use.

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TABLE 3-3 (cont.)
 HVAC System Descriptions for Prototype Buildings¹

HVAC Component	System #1	System #2
System Description	Packaged rooftop single zone, one unit per zone.	Packaged terminal air conditioner with space heater or heat pump, heating or cooling unit per zone.
Fan System Design Supply Circulation Rate	Note 10	Note 11
Supply Fan Control	Constant volume.	Fan cycles with call for heating or cooling.
Return Fan Control	N.A.	NA
Cooling System	Direct expansion air cooled	Direct expansion air cooled.
Heating System	Furnace, heat pump, or electric resistance.	Heat pump with electric resistance auxiliary or air conditioner with space heater.
Remarks	Drybulb economizer per Section 1433, heat recovery if required by Section 1436.	No economizer, if not required by Section 1433.

TABLE 3-3 (cont.)
 HVAC System Descriptions for Prototype Buildings¹

HVAC Component	System #3	System #4
System Description	Air handler per zone with central plant.	Packaged rooftop VAV with perimeter reheat and fan-powered terminal units.
Fan System Design Supply Circulation Rate	Note 10	Note 10
Supply Fan Control	Constant volume.	VAV with forward curved centrifugal fan and variable inlet fans.
Return Fan Control	Constant volume.	VAV with forward curved centrifugal fan and discharge dampers.
Cooling System	Chilled water (Note 12)	Direct expansion air cooled.
Heating System	Hot water (Note 13)	Hot water (Note 13) or electric resistance.
Remarks	Drybulb economizer per Section 1433, heat recovery if required by Section 1436.	Drybulb economizer per Section 1433. Minimum VAV setting per Section 1435 Exception 1, Supply air reset by zone of greatest cooling demand, heat recovery if required by Section 1436.

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TABLE 3-3 (cont.)
 HVAC System Descriptions for Prototype Buildings¹

HVAC Component	System #5	System #6
System Description	Built-up central VAV with perimeter reheat and fan-powered terminal units	Four-pipe fan coil per zone with central plant.
Fan System Design Supply Circulation Rate	Note 10	Note 10
Supply Fan Control	VAV with air-foil centrifugal fan and AC frequency variable speed drive.	Fan cycles with call for heating or cooling.
Return Fan Control	VAV with air-foil centrifugal fan and AC frequency variable speed drive.	NA
Cooling System	Chilled water (Note 12)	Chilled water (Note 12)
Heating System	Hot water (Note 13) or electric resistance.	Hot water (Note 13) or electric resistance.
Remarks	Drybulb economizer per Section 1433. Minimum VAV setting per Section 1435 Exception 1, Supply air rest by zone of greatest cooling demand, heat recovery if required by Section 1436.	No economizer, if not required by Section 1433.

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Numbered Footnotes for TABLE 3-3
HVAC System Descriptions for Prototype
Buildings

1. The systems and energy types presented in this Table are not intended as requirements or recommendations for the proposed design.
2. For occupancies such as restaurants, assembly and retail that are part of a mixed use building which, according to Table 3-3, includes a central chilled water plant (systems 3,5, or 6), chilled water system type 3 or 5 shall be used as indicated in the table.
3. Constant volume may be used in zones where pressurization relationships must be maintained by code. Where constant volume is used, the system shall have heat recovery if required by Section 1436. VAV shall be used in all other areas, in accordance with Sections 1432 through 1438.
4. Provide run-around heat recovery systems for all fan systems with a minimum outside air intake greater than 70%. Recovery effectiveness shall be 0.50.
5. If a warehouse is not intended to be mechanically cooled, both the standard and proposed designs shall be calculated assuming no mechanical cooling.
6. The system listed is for guest rooms only. Areas such as public areas and back-of-house areas shall be served by system 4. Other areas such as offices and retail shall be served by systems listed in Table 3-3 for these occupancy types.
7. The system listed is for guest rooms only. Areas such as public areas and back-of-house areas shall be served by system 5. Other areas such as offices and retail shall be served by systems listed in Table 3-3 for these occupancy types.
8. Reserved.
9. Reserved.
10. Design supply air circulation rate shall be based on a supply-air-to-room air temperature difference of 20° F. A higher supply air temperature may be used if required to maintain a minimum circulation rate of 4.5 air changes per hour or 15 cfm per person to each zone served by the system, at design conditions. If return fans are specified, they shall be sized for the supply fan capacity less the required minimum ventilation with outside air, or 75 % of the supply fan capacity, whichever is larger. Except where noted, supply and return fans shall be operated continuously during occupied hours.
11. Fan energy when included in the efficiency rating of the unit as defined in Section 1411, need not be modeled explicitly for this system. The fan shall cycle with calls for heating or cooling.
12. Chilled water systems shall be modeled using a reciprocating chiller for systems with total cooling capacities less than 175 tons, and centrifugal chillers for systems with cooling capacities of 175 tons or greater. For systems with cooling capacities of 600 tons or more, the standard design energy consumption shall be calculated using two centrifugal chillers, lead/lag controlled. Chilled water shall be assumed to be controlled at a constant 44° F. Chiller water pumps shall be sized using a 12° F temperature rise, from 44° F to 56° F, operating at 65% combined impeller and motor efficiency. Condenser water pumps shall be sized using a 10° F temperature rise, operating at 60% combined impeller and motor efficiency. The cooling tower shall be an open circuit, centrifugal blower type sized for the larger of 85° F leaving water temperature or 10° F approach to design wetbulb temperature. The tower shall be controlled to provide a 65° F leaving water temperature whenever weather conditions permit, floating up to design leaving water temperatures at design conditions. Chilled water supply temperature shall be reset in accordance with Section 1432.2.2.
13. Hot water system shall include a natural draft fossil fuel or electric boiler. The hot water pump shall be sized based on a 30° F temperature drop, from 180° F to 150° F, operating at a combined impeller and motor efficiency of 60%. Hot water supply temperature shall be reset in accordance with Section 1432.2.2.

AMENDATORY SECTION (Amending WSR 93-21-052, filed 10/18/93, effective 4/1/94)

WAC 51-11-99904 Section 4—Suggested software for systems analysis approach.

4.1 Programs Acceptable for Projects for Full-Year Hourly Analysis

Program Name	Source
ADM-DOE	ADM Associates ((3299)) 3239 Ramos Circle Sacramento, CA 95827 916-363-8383
((Micro Access 10.1, PC	Edison Electric Institute PO Box 1235 Roswell, GA 30077 404-993-2406))
Blast 3.0 (Level 193)	Blast Support Office University of Illinois Dept. of Mechanical and Industrial Engineering 1206 W. Green Room 30, MEB Urbana, ((H)) IL 61801 1-800-842-5278
((DOE 2.1	Energy Science and Technology Software Center PO Box 1220 Oakridge, TN 37831-1020 615-576-2606))
<u>DOE 2.1</u>	<u>Energy Science Technology Software Center (ESTSC) PO Box 1020 Oakridge, TN 37831-1020 423-576-2606</u>
ESAS	Ross Meriweather Consulting, Engineering 3315 Outrider San Antonio, TX 78247-4405 ((512-490-7081)) <u>210-490-7081</u>
ESP-II	Automated Procedures for Engineering Consultants, Inc. ((Miami Valley Tower, Suite 2100)) 40 W. 4th ((St)) Centre, <u>Suite 2100</u> Dayton, OH 45402 ((513-228-2602)) <u>937-228-2602</u>
((HAP 2.02	Carrier Air Conditioning 655 S. Orcas, Suite 10 Seattle, WA 98108 206-767-6340))

<u>HAP 2.02</u>	<u>Carrier Building Systems and Services 3215 South 116th St., Suite 133 Tukwila, WA 98168 (206) 439-0097</u>
((MICRO-DOE	Aerosoft International, Inc. 9745 E. Hampden Ave., Suite 230 Denver, CO 80231 303-368-9225))
<u>MICRO-DOE2</u>	<u>ACROSFT/CAER Engineers 1204-1/2 Washington Avenue Golden, CO 80401 303-279-8136</u>
((ULTRA 600 Version 11.9))	Trace 600 Version 16.08
<u>Trace 600 Version 16.08</u>	The Trane Co. 3600 Pammel Creek Rd. Lacrosse, WI 54601 608-787-3926

4.2 Programs only Acceptable for Commercial Buildings 25,000 Square Feet or Less

Program Name	Source
ADM.2	ADM Associates ((3299)) 3239 Ramos Circle Sacramento, CA 95827 916-363-8383
((ASEAM	Advanced Sciences Inc. 2000 N. 15th St., Suite 407 Arlington, VA 22201-2627 703-243-4900))
<u>ASEAM</u>	<u>U.S. Department of Energy Clearinghouse 1(800) DOE-EREC (363-3732)</u>
Building Energy Analysis and Easy DOE	Elite Software PO Drawer 1194 Bryan, TX 77806 409-846-2340
ESE	Sea Gate ((5001 W. 80th)) <u>5100 W. 82nd St., Suite 204</u> Bloomington, MN 55437 612-844-8000
((Trakload 4.0))	SRC Systems ((1300 Clay St., Suite 850
((Load Shaper))	Oakland, CA 94612 510-839-2700))
Market Manager	<u>2855 Telegraph Ave., Suite 410</u> <u>Berkeley, CA 94705</u> <u>510-848-8400</u>
XENCAP 4.5	XENERGY 492 9th Street, Suite 220 Oakland, CA 94607 510-891-0446

PERMANENT

REPEALER

The following sections of the Washington Administrative Code are repealed:

- WAC 51-11-0606 Reserved.
- WAC 51-11-0607 Reserved.
- WAC 51-11-0608 Reserved.
- WAC 51-11-1010 Section 1009 Mass.

WSR 98-03-018
PERMANENT RULES
DEPARTMENT OF ECOLOGY
 [Order 97-03—Filed January 12, 1998, 1:20 p.m.]

Date of Adoption: January 8, 1998.

Purpose: These amendments will update the dangerous waste regulations by incorporating several federal hazardous waste requirements. Also, a conditional exclusion for recycled antifreeze is being adopted.

Citation of Existing Rules Affected by this Order: Amending chapter 173-303 WAC.

Statutory Authority for Adoption: Chapters 70.105 and 70.105D RCW.

Adopted under notice filed as WSR 97-16-074 on August 4, 1997.

Changes Other than Editing from Proposed to Adopted Version: **1. WAC 173-303-040 Designation**, "designation" is the process of determining whether a waste is regulated under the dangerous waste lists, WAC 173-303-080 through 173-303-082; or characteristics, WAC 173-303-090; or criteria, WAC 173-303-100. A waste that has been designated as a dangerous waste may be either DW or EHW. The procedures for designating wastes are in WAC 173-303-070.

2. WAC 173-303-040 Large quantity handler of universal waste, "large quantity handler of universal waste" means a universal waste handler (as defined in this section) who accumulates 11,000 pounds or more total of universal waste (batteries or thermostats, calculated collectively) at any time. This designation as a large quantity handler of universal waste is retained through the end of the calendar year in which ~~5,000 kilograms~~ 11,000 pounds or more total of universal waste is accumulated.

3. WAC 173-303-040 Persistence, "persistence" means the quality of a material ~~which that~~ retains more than half of its initial activity after one year (365 days) in either a dark anaerobic or dark aerobic environment at ambient conditions. ~~Persistence~~ Persistent compounds are either halogenated organic compounds (HOC) or polycyclic aromatic hydrocarbons (PAH) as defined in this section.

4. WAC 173-303-045(2), references to EPA's hazardous waste and permit regulations.

(1) Any references in this chapter to any parts, subparts, or sections from EPA's hazardous waste regulations, including 40 CFR Parts 260 through 280 and Part 124, are in reference to those rules as they existed on July 1, 1996, except for the following: (a) Update III to SW 846 is incorporated in accordance with the June 13, 1997 Federal Register Volume 62, Number 114; and (b) The Land Disposal Restriction requirements for carbamate wastes are those that appeared at 40 CFR 268.39 and 268.40 in the June 17, 1997 Federal Register Volume 62, Number 116. Copies of the appropriate referenced federal requirements are available upon request from the department.

(2) The following sections and any cross-reference to these sections are not incorporated or adopted by reference:

- (a) 40 CFR Parts 260.1 (b)(4)-(6) and 260.20-22.
- (b) 40 CFR Parts 264.1 (d) and (f); 265.1 (c)(4); 264.149-150 and 265.149-150; 264.301(k); and 265.430.
- (c) 40 CFR Parts 268.5 and 268.6; 268 Subpart B; and 268.42(b).
- (d) 40 CFR Parts 270.1 (c)(1)(i); 270.60(b); and 270.64.
- (e) 40 CFR Parts 124.1 (b)-(e); 124.4; 124.5(e); 124.9; 124.10 (a)(1)(iv); 124.12(e); 124.14(d); 124.15 (b)(2); 124.16; 124.17(b); 124.18; 124.19; and 124.21.

5. WAC 173-303-070 (7)(d)(ii), withdrawn counting provision.

(ii) ~~Dangerous waste produced by on-site treatment (including reclamation) of their dangerous waste, as long as the dangerous waste that is treated was counted once (Note: If after treatment or reclamation a residue is generated with a different waste code(s), that residue is counted) Reserve;~~

6. WAC 173-303-071 (3)(c), household dangerous waste exclusion.

(c) Household wastes, including household waste that has been collected, transported, stored, or disposed. Wastes ~~which that~~ are residues from or are generated by the management of household wastes (e.g., leachate, ash from burning of refuse-derived fuel) are not excluded by this provision. "Household wastes" means any waste material (including, but not limited to, garbage, trash, and sanitary wastes in septic tanks) derived from households (including single and multiple residences, hotels and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds, and day-use recreation areas). A resource recovery facility managing municipal solid waste will not be deemed to be treating, storing, disposing of, or otherwise managing ~~hazardous dangerous~~ wastes for the purposes of regulation under this chapter, if such facility:

7. WAC 173-303-100 (5)(b)(ii), Example 1.

Example 1. A person's waste contains: Aldrin (A Category) - .01%; Endrin (A Category) - 1%; Benzene (D Category) - 4%; Phenol (C Category) - 2%; Dinoseb (B Category) - 5%; Water (nontoxic) - 87%. The equivalent concentration (E.C.) would be:

$$\begin{aligned}
 \text{E.C. (\%)} &= \frac{1 \cdot 01\% + 5\% + 2\% + 4\% + 0\% \cdot 0\% + (0.01\% + 1.0\%) + 5.0\% + 2.0\% + 4.0\%}{10 \quad 100 \quad 1000 \quad 10,000 \quad 1 \quad 10 \quad 100 \quad 1000 \quad 10,000} \\
 &= 0\% + 0.101\% + 0.05\% + 0.002\% + 0.0004\% + 0\% = 0.1534\%
 \end{aligned}$$

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So the equivalent concentration equals 0.1534%.

8. WAC 173-303-100(6) and 173-303-110 (3)(c).

WAC 173-303-100(6), persistence criteria, for the purposes of this section, persistent constituents are chemical compounds which are either halogenated organic compounds (HOC), or polycyclic aromatic hydrocarbons (PAH), as defined under WAC 173-303-040. Except as provided in WAC 173-303-070 (4) or (5), a person may determine the identity and concentration of persistent constituents by either applying knowledge of the waste or by testing the waste according to WAC 173-303-110 (3)(c) *Chemical Testing Methods for Designating Dangerous Waste*, ~~September 1997~~ February 1998. WAC 173-303-110 (3)(c) *Chemical Testing Methods for Designating Dangerous Waste*, ~~September 1997~~ February 1998 describing methods for testing:

- (i) Ignitability;
- (ii) Corrosivity;
- (iii) Reactivity;
- (iv) Toxicity characteristic leaching procedure;
- (v) Halogenated organic compounds; and
- (vi) Polycyclic aromatic hydrocarbons.

9. WAC 173-303-110.

(1) Purpose, this section sets forth the testing methods to be used to comply with the requirements of this chapter. Quality control procedures specified by the testing method or an approved equivalent method must be followed for the analytical result to be considered valid for designation. All methods and publications listed in this section are incorporated by reference.

(2) Representative samples.

(a)(vi) Containerized liquid wastes - "COLIWASA" described in ~~*Test Methods for Evaluating Solid Waste, Physical/Chemical Methods*, SW-846, revised July 1982, as amended by Update 1 (April 1984) and Update 2 (April 1985) as incorporated by reference at WAC 173-303-110 (3)(a); and,~~

(vii) Liquid waste in pits, ponds, lagoons, and similar reservoirs - "Pond Sampler" described in ~~*Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods*, SW-846, revised July 1982, as amended by Update 1 (April 1984) and Update 2 (April 1985) as incorporated by reference at WAC 173-303-110 (3)(a).~~

(3) Test procedures, for copies of SW-846, including updates, and 40 CFR Part 261: Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, (202) 512-1800.

The document titles and included test procedures are as follows:

(a) *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, EPA Publication, SW-846* (Third Edition (November 1986) as amended by Updates I (July 1992), II (September 1994), IIA (August 1993), IIB (January 1995), and III (December 1996)). The Third Edition of SW-846 and its Updates (document number 955-001-00000-1) are available from the Superintendent of Documents;

(b) *Biological Testing Methods, Department of Ecology Publication #80-12*, the latest revision, describing procedures for:

(c) *Chemical Testing Methods for Designating Dangerous Waste, Department of Ecology Publication #97-407, February 1998* describing methods for testing:

(f) 40 CFR Part 261 Appendix III *Chemical Analysis Test Methods*, which refers to appropriate analytical procedures to determine whether a sample contains a given toxic constituent in *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, EPA Publication SW-846*, and 40 CFR Part 261 Appendix II, which refers to *Method 1311 Toxicity Characteristic Leaching Procedure* ~~are adopted by reference.~~

(g) The following publications for air emission standards ~~are incorporated by reference.~~

(h) ~~When used in this chapter, the~~ The following publications ~~are incorporated by reference:~~

10. WAC 173-303-145(3).

(b)(i) Where immediate removal, temporary storage, or treatment of spilled or discharged dangerous wastes or hazardous substances is necessary to protect human health or the environment, the department may direct ~~that persons to:~~

~~(i) Removal be accomplished (A) Remove it~~ without a manifest, by transporters who do not have EPA/state identification numbers;

~~(ii) The wastes may be temporarily stored (B) Temporarily store it~~ at sites that are protective of human health and the environment and are secure from access by the public; and/or

~~(iii) That the wastes may be treated (C) Treat it~~ to reduce or control the hazards, under WAC 173-303-170.

(ii) When the department seeks to direct persons who are not responsible for a spill or discharge to carry out actions pursuant to this section, it will obtain their concurrence. It is the intent of the department that persons who provide these services may be deemed "Good Samaritans" under the provisions of chapter 70.136 RCW.

11. WAC 173-303-335(5) and 173-303-400 (3)(a).

~~WAC 173-303-335(5) Construction quality assurance program for interim status facilities. Interim status facilities must comply with the construction quality assurance program requirements at 40 CFR 265.19 which are incorporated by reference at WAC 173-303-400 (3)(a).~~

WAC 173-303-400(3) Standards.

(a) Interim status standards are the standards set forth by the Environmental Protection Agency in 40 CFR Part 265. Section 265.19 of Subpart B, Subparts F through R, Subpart W, and Subparts AA, BB, and DD which are incorporated by reference into this regulation (including, by reference, any EPA requirements specified in those subparts which are not otherwise explicitly described in this chapter), and:

(i) The land disposal restrictions of WAC 173-303-140; the facility requirements of WAC 173-303-280 through 173-303-440 except WAC 173-303-335; and the corrective action requirements of WAC 173-303-646;

12. WAC 173-303-505.

(2)(d) The use of waste ~~or oil~~, used oil, or other material ~~which that~~ is contaminated with dioxin or any other dangerous waste ~~(other than a waste identified solely on the basis of ignitability)~~; for dust suppression or road treatment is prohibited.

13. WAC 173-303-573 (35)(a).

(a) The owner or operator of a destination facility (as defined in WAC 173-303-040) is subject to all applicable requirements of WAC 173-303-140 and 173-303-141, 173-303-280 through 173-303-525, 173-303-600 through 173-

303-695, 173-303-800 through 173-303-840, and the notification requirement at WAC 173-303-060:

14. WAC 173-303-573 (40)(f).

(f) Regulation of the waste or category of waste under this section will increase the likelihood that the waste will be diverted from nondangerous waste management systems (e.g., the municipal waste stream, nondangerous industrial or commercial waste stream, municipal sewer or stormwater systems) to recycling, treatment, or disposal in compliance with the Hazardous Waste Management Act chapter 70.105 RCW, and this chapter, and RCRA Subtitle C.

15. WAC 173-303-655(12).

~~(12) Existing and newly regulated surface impoundments. The requirements of 3005 (j)(1) and (6) of the Resource Conservation and Recovery Act (RCRA) of 1976, as amended, are incorporated by reference. Surface impoundments regulated for the first time by a listing or characteristic promulgated after November 8, 1984, must comply with new unit requirements or stop hazardous waste activity by four years after the date of promulgation of the new listing or characteristic.~~

16. WAC 173-303-815 (2)(b).

(b)(i) Each permit must include permit conditions necessary to achieve compliance with the Hazardous Waste Management Act and, this chapter, and RCRA Subtitle C. In satisfying this provision, the director may incorporate applicable requirements of this chapter directly into the permit or establish other permit conditions that are based on this chapter.

17. WAC 173-303-815 (2)(b)(iii).

(iii) For a state-issued permit, an applicable requirement is a state statutory or regulatory requirement that takes effect prior to final administrative disposition of a permit. (Note: For a permit issued by EPA, an applicable requirement is a statutory or regulatory requirement (including any interim final regulation) which takes effect prior to the issuance of the permit (except as provided in § 40 CFR Section 124.86(c) for RCRA permits being processed under Subpart E or F of part 124). 40 CFR Section 124.14 (reopening of comment period) provides a means for reopening EPA permit proceedings at the discretion of the director where new requirements become effective during the permitting process and are of sufficient magnitude to make additional proceedings desirable). For state and EPA administered programs, an applicable requirement is also any requirement that takes effect prior to the modification or revocation and reissuance of a permit, to the extent allowed in WAC 173-303-830(3).

18. WAC 173-303-910 (6)(b)(iv).

(iv) Petition for organic/carbonaceous waste exemption. Petitions for exemption of organic/carbonaceous wastes, as allowed under WAC 173-303-140 (6)(d)(c), must:

19. WAC 173-303-830 Appendix I F. Containers.

4. Storage of or treatment of different wastes in containers:

a. That require addition of units or change in treatment process or management standards, provided that the wastes are restricted from land disposal and are to be treated to meet some or all of the applicable treatment standards, or that are to be treated to satisfy (in whole or in part) the standard of "use of practically available technology that yields the greatest environmental benefit" contained in 40

CFR 268.8 (a)(2)(ii). This modification is not applicable to dioxin-containing wastes (F020, 021, 022, 023, 026, 027, and 028) 11

b. That do not require the addition of units or a change in the treatment process or management standards, and provided that the units have previously received wastes of the same type (e.g., incinerator scrubber water). This modification is not applicable to dioxin-containing wastes (F020, 021, 022, 023, 026, 027, and 028) +1

20. WAC 173-303-9903 U Wastes.

U387 52888-80-9 Prosulfocarb

For the rationale for the changes, a copy of the concise explanatory statement is available from Patricia Hervieux, P.O. Box 47600, Olympia, WA 98504-7600.

Number of Sections Adopted in Order to Comply with Federal Statute: New 0, amended 0, repealed 0; Federal Rules or Standards: New 3, amended 35, repealed 0; or Recently Enacted State Statutes: New 0, amended 0, repealed 0.

Number of Sections Adopted at Request of a Nongovernmental Entity: New 0, amended 0, repealed 0.

Number of Sections Adopted on the Agency's own Initiative: New 1, amended 16, 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.

Effective Date of Rule: Thirty-one days after filing.
January 8, 1998
Tom Fitzsimmons
Director

AMENDATORY SECTION (Amending Order 94-30, filed 10/19/95, effective 11/19/95)

WAC 173-303-017 Recycling processes involving solid waste. (1) The purpose of this section is to identify those materials that are and are not solid wastes when recycled. Certain materials, as described in subsection (2) of this section, would not typically be considered to involve waste management and are exempt from the requirements of this chapter. All recycling processes not exempted by subsection (2) of this section are subject to the recycling requirements of WAC 173-303-120.

(2) General categories of materials that are not solid waste when recycled.

(a) Except as provided in subsection (3) of this section, materials are not solid wastes when they can be shown to be recycled by being:

(i) Used or reused as ingredients in an industrial process to make a product provided the materials are not being reclaimed; or

(ii) Used or reused as effective substitutes for commercial products; or

(iii) Returned to the original process from which they are generated, without first being reclaimed or land disposed. The material must be returned as a substitute for feedstock materials. In cases where the original process to which the material is returned is a secondary process, the materials

PERMANENT

must be managed such that there is no placement on the land.

(b) Except as provided in subsection (3) of this section, the department has determined that the following materials when used as described are not solid wastes:

(i) Pulping liquors (~~((i-e-))~~ e.g., black liquor) that are reclaimed in a pulping liquor recovery furnace and then reused in the pulping process;

(ii) Spent pickle liquor which is reused in wastewater treatment at a facility holding a national pollutant discharge elimination system (NPDES) permit, or which is being accumulated, stored, or treated before such reuse;

(iii) Spent sulfuric acid used to produce virgin sulfuric acid.

(3) The following materials are solid wastes, even if the recycling involves use, reuse, or return to the original process (as described in subsection (2)(a) of this section):

(a) Materials used in a manner constituting disposal, or used to produce products that are applied to the land; or

(b) Materials burned for energy recovery, used to produce a fuel, or contained in fuels; or

(c) Materials accumulated speculatively as defined in WAC 173-303-016 (5)(d)(ii); or

(d) Materials listed in WAC 173-303-016(6); or

(e) Any materials that the department determines are being accumulated, used, reused or handled in a manner that poses a threat to public health or the environment.

(4) Documentation of claims that materials are not solid wastes or are conditionally exempt from regulation. Respondents in actions to enforce regulations implementing chapter 70.105 RCW who raise a claim that a certain material is not a solid waste, or is conditionally exempt from regulation, must demonstrate that there is a known market or disposition for the material, and that they meet the terms of the exclusion or exemption. In doing so, they must provide appropriate documentation (such as contracts showing that a second person uses the material as an ingredient in a production process) to demonstrate that the material is not a waste, or is exempt from regulation. In addition, owners or operators of facilities claiming that they actually are recycling materials must show that they have the necessary equipment to do so.

(5) Variances from classification as a solid waste.

(a) In accordance with the standards and criteria in (b) of this subsection and the procedures in subsection (7) of this section, the department may determine on a case-by-case basis that the following recycled materials are not solid wastes:

(i) Materials that are accumulated speculatively without sufficient amounts being recycled (as defined in WAC 173-303-016 (5)(d)(ii));

(ii) Materials that are reclaimed and then reused within the original production process in which they were generated;

(iii) Materials that have been reclaimed but must be reclaimed further before the materials are completely recovered;

(iv) State-only dangerous materials (not regulated as hazardous wastes (defined in WAC 173-303-040) by EPA) which serve as an effective substitute for a commercial product or raw material.

(b) Standards and criteria for variances from classification as a solid waste.

(i) The department may grant requests for a variance from classifying as a solid waste those materials that are accumulated speculatively without sufficient amounts being recycled if the applicant demonstrates that sufficient amounts of the material will be recycled or transferred for recycling in the following year. If a variance is granted, it is valid only for the following year, but can be renewed, on an annual basis, by filing a new application. The department's decision will be based on the following (~~(standards and)~~) criteria:

(A) The manner in which the material is expected to be recycled, when the material is expected to be recycled, and whether this expected disposition is likely to occur (for example, because of past practice, market factors, the nature of the material, or contractual arrangements for recycling);

(B) The reason that the applicant has accumulated the material for one or more years without recycling seventy-five percent of the volume accumulated at the beginning of the year;

(C) The quantity of material already accumulated and the quantity expected to be generated and accumulated before the material is recycled;

(D) The extent to which the material is handled to minimize loss;

(E) Other relevant factors.

(ii) The department may grant requests for a variance from classifying as a solid waste those materials that are reclaimed and then reused as feedstock within the original production process in which the materials were generated if the reclamation operation is an essential part of the production process. This determination will be based on the following criteria:

(A) How economically viable the production process would be if it were to use virgin materials, rather than reclaimed materials;

(B) The prevalence of the practice on an industry-wide basis;

(C) The extent to which the material is handled before reclamation to minimize loss;

(D) The time periods between generating the material and its reclamation, and between reclamation and return to the original primary production process;

(E) The location of the reclamation operation in relation to the production process;

(F) Whether the reclaimed material is used for the purpose for which it was originally produced when it is returned to the original process, and whether it is returned to the process in substantially its original form;

(G) Whether the person who generates the material also reclaims it;

(H) Other relevant factors.

(iii) The department may grant requests for a variance from classifying as a solid waste those materials that have been reclaimed but must be reclaimed further before recovery is completed if, after initial reclamation, the resulting material is commodity-like (even though it is not yet a commercial product, and has to be reclaimed further). This determination will be based on the following factors:

(A) The degree of processing the material has undergone and the degree of further processing that is required;

(B) The value of the material after it has been reclaimed;

(C) The degree to which the reclaimed material is like an analogous raw material;

(D) The extent to which an end market for the reclaimed material is guaranteed;

(E) The extent to which the reclaimed material is handled to minimize loss;

(F) Other relevant factors.

(iv) The department may grant requests for a variance from classifying as a solid waste those materials that serve as an effective substitute for a commercial product or raw material, when such material is not regulated as hazardous waste (defined in WAC 173-303-040) by EPA, if the materials are recycled in a manner such that they more closely resemble products or raw materials rather than wastes. This determination will be based on the following factors:

(A) The effectiveness of the material for the claimed use;

(B) The degree to which the material is like an analogous raw material or product;

(C) The extent to which the material is handled to minimize loss or escape to the environment;

(D) The extent to which an end market for the reclaimed material is guaranteed;

(E) The time period between generating the material and its recycling;

(F) Other factors as appropriate.

(6) Variance to be classified as a boiler.

In accordance with the standards and criteria in WAC 173-303-040 (definition of "boiler"), and the procedures in subsection (7) of this section, the department may determine on a case-by-case basis that certain enclosed devices using controlled flame combustion are boilers, even though they do not otherwise meet the definition of boiler contained in WAC 173-303-040, after considering the following criteria:

(a) The extent to which the unit has provisions for recovering and exporting thermal energy in the form of steam, heated fluids, or heated gases; and

(b) The extent to which the combustion chamber and energy recovery equipment are of integral design; and

(c) The efficiency of energy recovery, calculated in terms of the recovered energy compared with the thermal value of the fuel; and

(d) The extent to which exported energy is utilized; and

(e) The extent to which the device is in common and customary use as a "boiler" functioning primarily to produce steam, heated fluids, or heated gases; and

(f) Other factors, as appropriate.

(7) Procedures for variances from classification as a solid waste or to be classified as a boiler.

The department will use the following procedures in evaluating applications for variances from classification as a solid waste or applications to classify particular enclosed controlled flame combustion devices as boilers:

(a) The applicant must apply to the department for the variance. The application must address the relevant criteria contained in subsections (5)(b) or (6) of this section.

(b) The department will evaluate the application and issue a draft public notice tentatively granting or denying the application. Notification of this tentative decision will be

provided by newspaper advertisement and radio broadcast in the locality where the recycler is located. The department will accept comment on the tentative decision for thirty days, and may also hold a public hearing upon request or at its discretion. The department will issue a final decision after receipt of comments and after the hearing (if any) ~~(and this decision may not be appealed to the department)~~.

AMENDATORY SECTION (Amending Order 94-30, filed 10/19/95, effective 11/19/95)

WAC 173-303-040 Definitions. When used in this chapter, the following terms have the meanings given below.

"Aboveground tank" means a device meeting the definition of "tank" in this section and that is situated in such a way that the entire surface area of the tank is completely above the plane of the adjacent surrounding surface and the entire surface area of the tank (including the tank bottom) is able to be visually inspected.

"Active life" of a facility means the period from the initial receipt of dangerous waste at the facility until the department receives certification of final closure.

"Active portion" means that portion of a facility which is not a closed portion, and where dangerous waste recycling, reuse, reclamation, transfer, treatment, storage or disposal operations are being or have been conducted after:

The effective date of the waste's designation by 40 CFR Part 261; and

March 10, 1982, for wastes designated only by this chapter and not designated by 40 CFR Part 261. (See also "closed portion" and "inactive portion.")

"Acute hazardous waste" means dangerous waste sources (listed in WAC 173-303-9904) F020, F021, F022, F023, F026, or F027, and discarded chemical products (listed in WAC 173-303-9903) that are identified with a dangerous waste number beginning with a "P", including those wastes mixed with source, special nuclear, or by-product material subject to the Atomic Energy Act of 1954. The abbreviation "AHW" will be used in this chapter to refer to those dangerous and mixed wastes which are acute hazardous wastes. Note - the terms acute and acutely are used interchangeably.

"Ancillary equipment" means any device including, but not limited to, such devices as piping, fittings, flanges, valves, and pumps, that is used to distribute, meter, or control the flow of dangerous waste from its point of generation to a storage or treatment tank(s), between dangerous waste storage and treatment tanks to a point of disposal on-site, or to a point of shipment for disposal off-site.

"Aquifer" means a geologic formation, group of formations, or part of a formation capable of yielding a significant amount of ground water to wells or springs.

~~("Asbestos-containing waste material" means any waste that contains more than one percent asbestos by weight and that can be crumbled, pulverized, or reduced to powder when dry, by hand pressure.)~~

"Batch" means any waste which is generated less frequently than once a month.

"Battery" means a device consisting of one or more electrically connected electrochemical cells which is designed to receive, store, and deliver electric energy. An electrochemical cell is a system consisting of an anode, cathode, and an electrolyte, plus such connections (electrical

and mechanical) as may be needed to allow the cell to deliver or receive electrical energy. The term battery also includes an intact, unbroken battery from which the electrolyte has been removed.

"Berm" means the shoulder of a dike.

"Boiler" means an enclosed device using controlled flame combustion and having the following characteristics:

The unit must have physical provisions for recovering and exporting thermal energy in the form of steam, heated fluids, or heated gases; and

The unit's combustion chamber and primary energy recovery section(s) must be of integral design. To be of integral design, the combustion chamber and the primary energy recovery section(s) (such as waterwalls and superheaters) must be physically formed into one manufactured or assembled unit. A unit in which the combustion chamber and the primary energy recovery section(s) are joined only by ducts or connections carrying flue gas is not integrally designed; however, secondary energy recovery equipment (such as economizers or air preheaters) need not be physically formed into the same unit as the combustion chamber and the primary energy recovery section. The following units are not precluded from being boilers solely because they are not of integral design: Process heaters (units that transfer energy directly to a process stream), and fluidized bed combustion units; and

While in operation, the unit must maintain a thermal energy recovery efficiency of at least sixty percent, calculated in terms of the recovered energy compared with the thermal value of the fuel; and

The unit must export and utilize at least seventy-five percent of the recovered energy, calculated on an annual basis. In this calculation, no credit will be given for recovered heat used internally in the same unit. (Examples of internal use are the preheating of fuel or combustion air, and the driving of induced or forced draft fans or feedwater pumps); or

The unit is one which the department has determined, on a case-by-case basis, to be a boiler, after considering the standards in WAC 173-303-017(6).

"By-product" means a material that is not one of the primary products of a production process and is not solely or separately produced by the production process. Examples are process residues such as slags or distillation column bottoms. The term does not include a co-product that is produced for the general public's use and is ordinarily used in the form it is produced by the process.

"Carbon regeneration unit" means any enclosed thermal treatment device used to regenerate spent activated carbon.

"Carcinogenic" means a material known to contain a substance which has sufficient or limited evidence as a human or animal carcinogen as listed in both IARC and either IRIS or HEAST.

"Closed portion" means that portion of a facility which an owner or operator has closed, in accordance with the approved facility closure plan and all applicable closure requirements.

"Closure" means the requirements placed upon all TSD facilities to ensure that all such facilities are closed in an acceptable manner (see also "post-closure").

"Commercial chemical product or manufacturing chemical intermediate" refers to a chemical substance which

is manufactured or formulated for commercial or manufacturing use which consists of the commercially pure grade of the chemical, any technical grades of the chemical that are produced or marketed, and all formulations in which the chemical is the sole active ingredient.

"Commercial fertilizer" means any substance containing one or more recognized plant nutrients and which is used for its plant nutrient content and/or which is designated for use or claimed to have value in promoting plant growth, and includes, but is not limited to, limes, gypsum, and manipulated animal manures and vegetable compost. The commercial fertilizer must be registered with the state or local agency regulating the fertilizer in the locale in which the fertilizer is being sold or applied.

"Compliance procedure" means any proceedings instituted pursuant to the Hazardous Waste Management Act as amended in 1980 and 1983, and chapter 70.105A RCW, or regulations issued under authority of state law, which seeks to require compliance, or which is in the nature of an enforcement action or an action to cure a violation. A compliance procedure includes a notice of intention to terminate a permit pursuant to WAC 173-303-830(5), or an application in the state superior court for appropriate relief under the Hazardous Waste Management Act. A compliance procedure is considered to be pending from the time a notice of violation or of intent to terminate a permit is issued or judicial proceedings are begun, until the department notifies the owner or operator in writing that the violation has been corrected or that the procedure has been withdrawn or discontinued.

"Component" means either the tank or ancillary equipment of a tank system.

"Constituent" or "dangerous waste constituent" means a chemically distinct component of a dangerous waste stream or mixture.

"Container" means any portable device in which a material is stored, transported, treated, disposed of, or otherwise handled.

"Containment building" means a hazardous waste management unit that is used to store or treat hazardous waste under the provisions of WAC 173-303-695.

"Contingency plan" means a document setting out an organized, planned, and coordinated course of action to be followed in case of a fire, explosion, or release of dangerous waste or dangerous waste constituents which could threaten ~~((the public))~~ human health or environment.

"Contract" means the written agreement signed by the department and the state operator.

"Corrective action management unit" or "CAMU" means an area within a facility that is designated by the director pursuant to WAC 173-303-646 (4), (5), and (6) for the purpose of implementing the corrective action requirements of WAC 173-303-646(2). A CAMU may be used only for the management of remediation wastes pursuant to implementing such corrective action requirements at the facility.

"Corrosion expert" means a person who, by reason of his knowledge of the physical sciences and the principles of engineering and mathematics, acquired by a professional education and related practical experience, is qualified to engage in the practice of corrosion control on buried or submerged metal piping systems and metal tanks. Such a person must be certified as being qualified by the National

Association of Corrosion Engineers (NACE) or be a registered professional engineer who has certification or licensing that includes education and experience in corrosion control on buried or submerged metal piping systems and metal tanks.

"Dangerous waste constituents" means those constituents listed in WAC 173-303-9905 and any other constituents that have caused a waste to be a dangerous waste under this chapter.

"Dangerous waste management unit" is a contiguous area of land on or in which dangerous waste is placed, or the largest area in which there is a significant likelihood of mixing dangerous waste constituents in the same area. Examples of dangerous waste management units include a surface impoundment, a waste pile, a land treatment area, a landfill cell, an incinerator, a tank and its associated piping and underlying containment system and a container storage area. A container alone does not constitute a unit; the unit includes containers and the land or pad upon which they are placed.

"Dangerous wastes" means those solid wastes designated in WAC 173-303-070 through 173-303-100 as dangerous, or extremely hazardous or mixed waste. As used in this chapter, the words "dangerous waste" will refer to the full universe of wastes regulated by this chapter. The abbreviation "DW" will refer only to that part of the regulated universe which is not extremely hazardous waste. (See also "extremely hazardous waste," "hazardous waste," and "mixed waste" definitions.)

"Debris" means solid material exceeding a 60 mm particle size that is intended for disposal and that is: A manufactured object; or plant or animal matter; or natural geologic material. However, the following materials are not debris: Any material for which a specific treatment standard is provided in 40 CFR Part 268 Subpart D (incorporated by reference in WAC 173-303-140 (2)(a)); process residuals such as smelter slag and residues from the treatment of waste, wastewater, sludges, or air emission residues; and intact containers of hazardous waste that are not ruptured and that retain at least seventy-five percent of their original volume. A mixture of debris that has not been treated to the standards provided by 40 CFR 268.45 and other material is subject to regulation as debris if the mixture is comprised primarily of debris, by volume, based on visual inspection.

"Department" means the department of ecology.

"Dermal LD₅₀" means the single dosage in milligrams per kilogram (mg/kg) body weight which, when dermally (skin) applied for 24 hours, within 14 days kills half of a group of ten rabbits each weighing between 2.0 and 3.0 kilograms.

"Designated facility" means ~~((the facility designated by the generator on the manifest to receive a dangerous waste shipment and which is authorized pursuant to this chapter or RCRA to recycle or manage dangerous waste))~~ a dangerous waste treatment, storage, or disposal facility that has received a permit (or interim status) in accordance with the requirements of this chapter, has received a permit (or interim status) from another state authorized in accordance with 40 CFR Part 271, has received a permit (or interim status) from EPA in accordance with 40 CFR Part 270, or is regulated under WAC 173-303-120 (4)(c) or 173-303-525 when the dangerous waste is to be recycled, and that has been desig-

nated on the manifest pursuant to WAC 173-303-180(1). If a waste is destined to a facility in an authorized state that has not yet obtained authorization to regulate that particular waste as dangerous, then the designated facility must be a facility allowed by the receiving state to accept such waste.

The following are designated facilities only for receipt of state-only waste; they cannot receive federal hazardous waste from off-site: Facilities with permit-by-rule under WAC 173-303-802 (5)(a) and facilities operating under WAC 173-303-500 (2)(c).

"Designation" is the process of determining whether a waste is regulated under the dangerous waste lists, WAC 173-303-080 through 173-303-082; or characteristics, WAC 173-303-090; or criteria, WAC 173-303-100. The procedures for designating wastes are in WAC 173-303-070. A waste that has been designated as a dangerous waste may be either DW or EHW.

"Destination facility" means a facility that treats, disposes of, or recycles a particular category of universal waste, except those management activities described in WAC 173-303-573 (9)(a) and (b) and 173-303-573 (20)(a) and (b). A facility at which a particular category of universal waste is only accumulated, is not a destination facility for purposes of managing that category of universal waste.

"Dike" means an embankment or ridge of natural or man-made materials used to prevent the movement of liquids, sludges, solids, or other substances.

"Director" means the director of the department of ecology or his designee.

"Discharge" or "dangerous waste discharge" means the accidental or intentional release of hazardous substances, dangerous waste or dangerous waste constituents such that the substance, waste or a waste constituent may enter or be emitted into the environment.

"Disposal" means the discharging, discarding, or abandoning of dangerous wastes or the treatment, decontamination, or recycling of such wastes once they have been discarded or abandoned. This includes the discharge of any dangerous wastes into or on any land, air, or water.

"Domestic sewage" means untreated sanitary wastes that pass through a sewer system to a publicly owned treatment works (POTW) for treatment.

"Draft permit" means a document prepared under WAC 173-303-840 indicating the department's tentative decision to issue or deny, modify, revoke and reissue, or terminate a permit. A notice of intent to terminate or deny a permit are types of draft permits. A denial of a request for modification, revocation and reissuance, or termination as discussed in WAC 173-303-830 is not a draft permit.

"Drip pad" is an engineered structure consisting of a curbed, free-draining base, constructed of nonearthen materials and designed to convey preservative kick-back or drippage from treated wood, precipitation, and surface water run-on to an associated collection system at wood preserving plants.

"Elementary neutralization unit" means a device which:

Is used for neutralizing wastes which are dangerous wastes only because they exhibit the corrosivity characteristics defined in WAC 173-303-090 or are listed in WAC 173-303-081, or in 173-303-082 only for this reason; and

Meets the definition of tank, tank system, container, transport vehicle, or vessel.

"Environment" means any air, land, water, or ground water.

"EPA/state identification number" or "EPA/state ID#" means the number assigned by EPA or by the department of ecology to each generator, transporter, and TSD facility.

"Existing tank system" or "existing component" means a tank system or component that is used for the storage or treatment of dangerous waste and that is in operation, or for which installation has commenced on or prior to February 3, 1989. Installation will be considered to have commenced if the owner or operator has obtained all federal, state, and local approvals or permits necessary to begin physical construction of the site or installation of the tank system and if either:

A continuous on-site physical construction or installation program has begun; or

The owner or operator has entered into contractual obligations, which cannot be cancelled or modified without substantial loss, for physical construction of the site or installation of the tank system to be completed within a reasonable time.

"Existing TSD facility" means a facility which was in operation or for which construction commenced on or before November 19, 1980, for wastes designated by 40 CFR Part 261, or August 9, 1982, for wastes designated only by this chapter and not designated by 40 CFR Part 261. A facility has commenced construction if the owner or operator has obtained permits and approvals necessary under federal, state, and local statutes, regulations, and ordinances and either:

A continuous on-site, physical construction program has begun; or

The owner or operator has entered into contractual obligation, which cannot be cancelled or modified without substantial loss, for physical construction of the facility to be completed within a reasonable time.

"Extremely hazardous waste" means those dangerous and mixed wastes designated in WAC 173-303-100 as extremely hazardous. The abbreviation "EHW" will be used in this chapter to refer to those dangerous and mixed wastes which are extremely hazardous. (See also "dangerous waste" and "hazardous waste" definitions.)

"Facility" means all contiguous land, and structures, other appurtenances, and improvements on the land used for recycling, reusing, reclaiming, transferring, storing, treating, or disposing of dangerous waste. A facility may consist of several treatment, storage, or disposal operational units (e.g., one or more landfills, surface impoundments, or combination of them). Unless otherwise specified in this chapter, the terms "facility," "treatment, storage, disposal facility," "TSD facility," "dangerous waste facility" or "waste management facility" are used interchangeably. For the purposes of implementing corrective action imposed pursuant to WAC 173-303-646 (2) or (3), the term facility has the following meaning: All contiguous property under the control of an owner or operator seeking or required to have a permit under the provisions of chapter 70.105 RCW or chapter 173-303 WAC, including the definition of facility at RCW 70.105D.020(3).

"Final closure" means the closure of all dangerous waste management units at the facility in accordance with all applicable closure requirements so that dangerous waste

management activities under WAC 173-303-400 and 173-303-600 through 173-303-670 are no longer conducted at the facility. Areas only subject to generator standards WAC 173-303-170 through 173-303-230 need not be included in final closure.

"Fish LC50" means the concentration that will kill fifty percent of the exposed fish in a specified time period. For book designation, LC50 data must be derived from an exposure period greater than or equal to twenty-four hours. A hierarchy of species LC50 data should be used that includes (in decreasing order of preference) salmonids, fathead minnows (*Pimephales promelas*), and other fish species. For the ninety-six-hour static acute fish toxicity test, described in WAC 173-303-110 (3)(b)(i), coho salmon (*Oncorhynchus kisutch*), rainbow trout (*Oncorhynchus mykiss*), ~~(and)~~ or brook trout (*Salvelinus fontinalis*) must be used.

"Food chain crops" means tobacco, crops grown for human consumption, and crops grown to feed animals whose products are consumed by humans.

"Freeboard" means the vertical distance between the top of a tank or surface impoundment dike, and the surface of the waste contained therein.

"Fugitive emissions" means the emission of contaminants from sources other than the control system exit point. Material handling, storage piles, doors, windows and vents are typical sources of fugitive emissions.

"Generator" means any person, by site, whose act or process produces dangerous waste or whose act first causes a dangerous waste to become subject to regulation.

"Genetic properties" means those properties which cause or significantly contribute to mutagenic, teratogenic, or carcinogenic effects in man or wildlife.

"Ground water" means water which fills voids below the land surface and in the earth's crust.

"Halogenated (~~(hydrocarbons~~ ~~(HH))~~) organic compounds" (HOC) means any organic compounds which, as part of their composition, include one or more atoms of fluorine, chlorine, bromine, or iodine ~~(, or astatine. The requirements of this chapter apply to only those halogenated hydrocarbons which can be obtained using the testing method described in WAC 173-303-110, testing methods, and which are persistent dangerous wastes-))~~ which is/are bonded directly to a carbon atom. This definition does not apply to the federal land disposal restrictions of 40 CFR Part 268 which are incorporated by reference at WAC 173-303-140 (2)(a).

"Hazardous debris" means debris that contains a hazardous waste listed in WAC 173-303-9903 or 173-303-9904, or that exhibits a characteristic of hazardous waste identified in WAC 173-303-090.

"Hazardous substances" means any liquid, solid, gas, or sludge, including any material, substance, product, commodity, or waste, regardless of quantity, that exhibits any of the physical, chemical or biological properties described in WAC 173-303-090 or 173-303-100.

"Hazardous wastes" means those solid wastes designated by 40 CFR Part 261, and regulated as hazardous and/or mixed waste by the United States EPA. This term will never be abbreviated in this chapter to avoid confusion with the abbreviations "DW" and "EHW." (See also "dangerous waste" and "extremely hazardous waste" definitions.)

"Ignitable waste" means a dangerous waste that exhibits the characteristic of ignitability described in WAC 173-303-090(5).

"Inactive portion" means that portion of a facility which has not recycled, treated, stored, or disposed dangerous waste after:

The effective date of the waste's designation, for wastes designated under 40 CFR Part 261; and

March 10, 1982, for wastes designated only by this chapter and not designated by 40 CFR Part 261.

"Incinerator" means any enclosed device that:

Uses controlled flame combustion and neither meets the criteria for classification as a boiler, sludge dryer, or carbon regeneration unit, nor is listed as an industrial furnace; or

Meets the definition of infrared incinerator or plasma arc incinerator.

"Incompatible waste" means a dangerous waste which is unsuitable for placement in a particular device or facility because it may corrode or decay the containment materials, or is unsuitable for mixing with another waste or material because the mixture might produce heat or pressure, fire or explosion, violent reaction, toxic dusts, fumes, mists, or gases, or flammable fumes or gases.

"Independent qualified registered professional engineer" means a person who is licensed by the state of Washington, or a state which has reciprocity with the state of Washington as defined in RCW 18.43.100, and who is not an employee of the owner or operator of the facility for which construction or modification certification is required. A qualified professional engineer is an engineer with expertise in the specific area for which a certification is given.

"Industrial-furnace" means any of the following enclosed devices that are integral components of manufacturing processes and that use thermal treatment to accomplish recovery of materials or energy: Cement kilns; lime kilns; aggregate kilns; phosphate kilns; blast furnaces; smelting, melting, and refining furnaces (including pyrometallurgical devices such as cupolas, reverberator furnaces, sintering machines, roasters and foundry furnaces); titanium dioxide chloride process oxidation reactors; coke ovens; methane reforming furnaces; combustion devices used in the recovery of sulfur values from spent sulfuric acid; pulping liquor recovery furnaces; combustion devices used in the recovery of sulfur values from spent sulfuric acid; and halogen acid furnaces (HAFs) for the production of acid from halogenated dangerous waste generated by chemical production facilities where the furnace is located on the site of a chemical production facility, the acid product has a halogen acid content of at least 3%, the acid product is used in a manufacturing process, and, except for dangerous waste burned as fuel, dangerous waste fed to the furnace has a minimum halogen content of 20% as-generated. The department may decide to add devices to this list on the basis of one or more of the following factors:

The device is designed and used primarily to accomplish recovery of material products;

The device burns or reduces secondary materials as ingredients in an industrial process to make a material product;

The device burns or reduces secondary materials as effective substitutes for raw materials in processes using raw materials as principal feedstocks;

The device burns or reduces raw materials to make a material product;

The device is in common industrial use to produce a material product; and

Other factors, as appropriate.

"Infrared incinerator" means any enclosed device that uses electric powered resistance heaters as a source of radiant heat followed by an afterburner using controlled flame combustion and which is not listed as an industrial furnace.

"Inground tank" means a device meeting the definition of "tank" in this section whereby a portion of the tank wall is situated to any degree within the ground, thereby preventing visual inspection of that external surface area of the tank that is in the ground.

"Inner liner" means a continuous layer of material placed inside a tank or container which protects the construction materials of the tank or container from the waste or reagents used to treat the waste.

"Installation inspector" means a person who, by reason of his knowledge of the physical sciences and the principles of engineering, acquired by a professional education and related practical experience, is qualified to supervise the installation of tank systems.

"Interim status permit" means a temporary permit given to TSD facilities which qualify under WAC 173-303-805.

"Land disposal" means placement on the land, except in a corrective action management unit, and includes, but is not limited to, placement in a: Landfill; surface impoundment; waste pile; injection well; land treatment facility; salt dome or salt bed formation; underground mine or cave; concrete vault; bunker; or miscellaneous unit.

"Landfill" means a disposal facility, or part of a facility, where dangerous waste is placed in or on land and which is not a pile, a land treatment facility, a surface impoundment, or an underground injection well, a salt dome formation, a salt bed formation, an underground mine, a cave, or a corrective action management unit.

"Land treatment" means the practice of applying dangerous waste onto or incorporating dangerous waste into the soil surface so that it will degrade or decompose. If the waste will remain after the facility is closed, this practice is disposal.

"Large quantity handler of universal waste" means a universal waste handler (as defined in this section) who accumulates 11,000 pounds or more total of universal waste (batteries or thermostats, calculated collectively) at any time. This designation as a large quantity handler of universal waste is retained through the end of the calendar year in which 11,000 pounds or more total of universal waste is accumulated.

"Leachable inorganic waste" means solid dangerous waste (i.e., passes paint filter test) that is not an organic/ carbonaceous waste and exhibits the toxicity characteristic (dangerous waste numbers D004 to D011, only) under WAC 173-303-090(8).

"Leachate" means any liquid, including any components suspended in the liquid, that has percolated through or drained from dangerous waste.

"Leak-detection system" means a system capable of detecting the failure of either the primary or secondary containment structure or the presence of a release of danger-

ous waste or accumulated liquid in the secondary containment structure. Such a system must employ operational controls (e.g., daily visual inspections for releases into the secondary containment system of aboveground tanks) or consist of an interstitial monitoring device designed to detect continuously and automatically the failure of the primary or secondary containment structure or the presence of a release of dangerous waste into the secondary containment structure.

"Legal defense costs" means any expenses that an insurer incurs in defending against claims of third parties brought under the terms and conditions of an insurance policy.

"Liner" means a continuous layer of man-made or natural materials which restrict the escape of dangerous waste, dangerous waste constituents, or leachate through the sides, bottom, or berms of a surface impoundment, waste pile, or landfill.

"Major facility" means a facility or activity classified by the department as major.

"Manifest" means the shipping document, prepared in accordance with the requirements of WAC 173-303-180, which is used to identify the quantity, composition, origin, routing, and destination of a dangerous waste while it is being transported to a point of transfer, disposal, treatment, or storage.

"Manufacturing process unit" means a unit which is an integral and inseparable portion of a manufacturing operation, processing a raw material into a manufacturing intermediate or finished product, reclaiming spent materials or reconditioning components.

"Miscellaneous unit" means a dangerous waste management unit where dangerous waste is treated, stored, or disposed of and that is not a container, tank, surface impoundment, pile, land treatment unit, landfill, incinerator, boiler, industrial furnace, containment building, corrective action management unit, temporary unit, underground injection well with appropriate technical standards under 40 CFR Part 146, or unit eligible for a research, development, and demonstration permit under WAC 173-303-809.

"Mixed waste" means a dangerous, extremely hazardous, or acutely hazardous waste that contains both a non-radioactive hazardous component and, as defined by 10 CFR 20.1003, source, special nuclear, or by-product material subject to the Atomic Energy Act of 1954 (42 U.S.C. 2011 et seq.).

"New tank system" or "new tank component" means a tank system or component that will be used for the storage or treatment of dangerous waste and for which installation has commenced after February 3, 1989; except, however, for purposes of WAC 173-303-640 (4)(g)(ii) and 40 CFR 265.193(g)(2) as adopted by reference in WAC 173-303-400(3), a new tank system is one for which construction commences after February 3, 1989. (See also "existing tank system.")

"New TSD facility" means a facility which began operation or for which construction commenced after November 19, 1980, for wastes designated by 40 CFR Part 261, or August 9, 1982, for wastes designated only by this chapter and not designated by 40 CFR Part 261.

"NIOSH registry" means the registry of toxic effects of chemical substances which is published by the National Institute for Occupational Safety and Health.

"Nonsudden accident" or "nonsudden accidental occurrence" means an unforeseen and unexpected occurrence which takes place over time and involves continuous or repeated exposure.

"Occurrence" means an accident, including continuous or repeated exposure to conditions, which results in bodily injury or property damage which the owner or operator neither expected nor intended to occur.

"Off-specification used oil fuel" means used oil fuel that exceeds any specification level described in Table 1 in WAC 173-303-515.

"Onground tank" means a device meeting the definition of "tank" in this section and that is situated in such a way that the bottom of the tank is on the same level as the adjacent surrounding surface so that the external tank bottom cannot be visually inspected.

"On-site" means the same(~~(, geographically contiguous, or bordering property. Travel between two properties divided by a public right of way and owned, operated, or controlled by the same person, will be considered on-site travel if: The travel crosses the right of way at a perpendicular intersection; or, the right of way is controlled by the property owner and is inaccessible to the public))~~ or geographically contiguous property which may be divided by public or private right of way, provided that the entrance and exit between the properties is at a cross-roads intersection, and access is by crossing as opposed to going along the right of way. Noncontiguous properties owned by the same person but connected by a right of way which they control and to which the public does not have access, are also considered on-site property.

"Operator" means the person responsible for the overall operation of a facility. (See also "state operator.")

"Oral LD₅₀" means the single dosage in milligrams per kilogram (mg/kg) body weight, when orally administered, which, within 14 days, kills half a group of ten or more white rats each weighing between 200 and 300 grams.

"Organic/carbonaceous waste" means a dangerous waste that contains combined concentrations of greater than ten percent organic/carbonaceous constituents in the waste; organic/carbonaceous constituents are those substances that contain carbon-hydrogen, carbon-halogen, or carbon-carbon chemical bonding.

"Partial closure" means the closure of a dangerous waste management unit in accordance with the applicable closure requirements of WAC 173-303-400 and 173-303-600 through 173-303-670 at a facility that contains other active dangerous waste management units. For example, partial closure may include the closure of a tank (including its associated piping and underlying containment systems), landfill cell, surface impoundment, waste pile, or other dangerous waste management unit, while other units of the same facility continue to operate.

"Permit" means an authorization which allows a person to perform dangerous waste transfer, storage, treatment, or disposal operations, and which typically will include specific conditions for such facility operations. Permits must be issued by one of the following:

The department, pursuant to this chapter;

United States EPA, pursuant to 40 CFR Part 270; or

Another state authorized by EPA, pursuant to 40 CFR Part 271.

"Permit-by-rule" means a provision of this chapter stating that a facility or activity is deemed to have a dangerous waste permit if it meets the requirements of the provision.

"Persistence" means the quality of a material (~~which~~) that retains more than half of its initial activity after one year (365 days) in either a dark anaerobic or dark aerobic environment at ambient conditions. Persistent compounds are either halogenated organic compounds (HOC) or polycyclic aromatic hydrocarbons (PAH) as defined in this section.

"Person" means any person, firm, association, county, public or municipal or private corporation, agency, or other entity whatsoever.

"Pesticide" means but is not limited to: Any substance or mixture of substances intended to prevent, destroy, control, repel, or mitigate any insect, rodent, nematode, mollusk, fungus, weed, and any other form of plant or animal life, or virus (except virus on or in living man or other animal) which is normally considered to be a pest or which the department of agriculture may declare to be a pest; any substance or mixture of substances intended to be used as a plant regulator, defoliant, or desiccant; any substance or mixture of substances intended to be used as spray adjuvant; and, any other substance intended for such use as may be named by the department of agriculture by regulation. Herbicides, fungicides, insecticides, and rodenticides are pesticides for the purposes of this chapter.

"Pile" means any noncontainerized accumulation of solid, nonflowing dangerous waste that is used for treatment or storage.

"Plasma arc incinerator" means any enclosed device using a high intensity electrical discharge or arc as a source of heat followed by an afterburner using controlled flame combustion and which is not listed as an industrial furnace.

"Point source" means any confined and discrete conveyance from which pollutants are or may be discharged. This term includes, but is not limited to, pipes, ditches, channels, tunnels, wells, cracks, containers, rolling stock, concentrated animal feeding operations, or watercraft, but does not include return flows from irrigated agriculture.

"Polycyclic aromatic hydrocarbons" (PAH) means those hydrocarbon molecules composed of two or more fused benzene rings. For purposes of this chapter, the PAHs of concern for designation are: (~~(Acenaphthene)~~) Acenaphthene, (~~(acenaphthylene)~~) acenaphthylene, fluorene, anthracene, fluoranthene, phenanthrene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, pyrene, chrysene, benzo(a)pyrene, dibenz(a,h)anthracene, indeno(1,2,3-c,d)pyrene, benzo(g,h,i)perylene, dibenzo [(a,e), (a,h), (a,i), and (a,l)] pyrenes, and dibenzo(a,i) acridine.

"Post-closure" means the requirements placed upon disposal facilities (e.g., landfills, impoundments closed as disposal facilities, etc.) after closure to ensure their environmental safety for a number of years after closure. (See also "closure.")

"Publicly owned treatment works" or "POTW" means any device or system, owned by the state or a municipality, which is used in the treatment, recycling, or reclamation of municipal sewage or liquid industrial wastes. This term includes sewers, pipes, or other conveyances only if they convey wastewater to a POTW.

"Qualified ground water scientist" means a scientist or engineer who has received a baccalaureate or post-graduate degree in the natural sciences or engineering, and has sufficient training and experience in ground water hydrology and related fields to make sound professional judgments regarding ground water monitoring and contaminant fate and transport. Sufficient training and experience may be demonstrated by state registration, professional certifications, or completion of accredited university courses.

"Reactive waste" means a dangerous waste that exhibits the characteristic of reactivity described in WAC 173-303-090(7).

"Reclaim" means to process a material in order to recover useable products, or to regenerate the material. Reclamation is the process of reclaiming.

"Recover" means extract a useable material from a solid or dangerous waste through a physical, chemical, biological, or thermal process. Recovery is the process of recovering.

"Recycle" means to use, reuse, or reclaim a material.

"Regulated unit" means any new or existing surface impoundment, landfill, land treatment area or waste pile that receives any dangerous waste after:

July 26, 1982, for wastes regulated by 40 CFR Part 261;

October 31, 1984 for wastes designated only by this chapter and not regulated by 40 CFR Part 261; or

The date six months after a waste is newly identified by amendments to 40 CFR Part 261 or this chapter which cause the waste to be regulated.

"Release" means any intentional or unintentional spilling, leaking, pouring, emitting, emptying, discharging, injecting, pumping, escaping, leaching, dumping, or disposing of dangerous wastes, or dangerous constituents as defined at WAC 173-303-646 (1)(c), into the environment and includes the abandonment or discarding of barrels, containers, and other receptacles containing dangerous wastes or dangerous constituents and includes the definition of release at RCW 70.105D.020(10).

"Remediation waste" means all solid or dangerous wastes, and all media (including ground water, surface water, soils, and sediments) and debris, which contain listed dangerous wastes, or which themselves exhibit a dangerous waste characteristic or criteria, that are managed for the purpose of implementing corrective action requirements imposed pursuant to WAC 173-303-646 (2) or (3). For a given facility, remediation wastes may originate only from within the facility boundary, except that remediation waste may include wastes managed in implementing corrective action in accordance with WAC 173-303-646 (2)(b) for releases extending beyond the facility boundary.

"Replacement unit" means a landfill, surface impoundment, or waste pile unit from which all or substantially all of the waste is removed, and that is subsequently reused to treat, store, or dispose of dangerous waste. "Replacement unit" does not apply to a unit from which waste is removed during closure, if the subsequent reuse solely involves the disposal of waste from that unit and other closing units or corrective action areas at the facility, in accordance with an approved closure plan or EPA or state approved corrective action.

"Representative sample" means a sample which can be expected to exhibit the average properties of the sample source.

"Reuse or use" means to employ a material either:

As an ingredient (including use as an intermediate) in an industrial process to make a product (for example, distillation bottoms from one process used as feedstock in another process). However, a material will not satisfy this condition if distinct components of the material are recovered as separate end products (as when metals are recovered from metal-containing secondary materials); or

In a particular function or application as an effective substitute for a commercial product (for example, spent pickle liquor used as phosphorous precipitant and sludge conditioner in wastewater treatment).

"Run-off" means any rainwater, leachate, or other liquid which drains over land from any part of a facility.

"Run-on" means any rainwater, leachate, or other liquid which drains over land onto any part of a facility.

"Satellite accumulation area" means a location at or near any point of generation where hazardous waste is initially accumulated in containers (during routine operations) prior to consolidation at a designated ninety-day accumulation area or storage area. The area must be under the control of the operator of the process generating the waste or secured at all times to prevent improper additions of wastes into the satellite containers.

"Schedule of compliance" means a schedule of remedial measures in a permit including an enforceable sequence of interim requirements leading to compliance with this chapter.

"Scrap metal" means bits and pieces of metal parts (e.g., bars, turnings, rods, sheets, wire) or metal pieces that may be combined together with bolts or soldering (e.g., radiators, scrap automobiles, railroad box cars), which when worn or superfluous can be recycled.

"Sludge" means any solid, semisolid, or liquid waste generated from a municipal, commercial, or industrial wastewater treatment plant, water supply treatment plant, or air pollution control facility. This term does not include the treated effluent from a wastewater treatment plant.

"Sludge dryer" means any enclosed thermal treatment device that is used to dehydrate sludge and that has a maximum total thermal input, excluding the heating value of the sludge itself, of 2,500 Btu/lb of sludge treated on a wet-weight basis.

"Small quantity handler of universal waste" means a universal waste handler (as defined in this section) who does not accumulate more than 11,000 pounds total of universal waste (batteries or thermostats, calculated collectively) at any time.

"Solid acid waste" means a dangerous waste that exhibits the characteristic of low pH under the corrosivity tests of ~~((either))~~ WAC 173-303-090 (6)(a)~~((ii) or (b))~~ (iii).

"Solid waste management unit" or "SWMU" means any discernible location at a facility, as defined for the purposes of corrective action, where solid wastes have been placed at any time, irrespective of whether the location was intended for the management of solid or dangerous waste. Such locations include any area at a facility at which solid wastes, including spills, have been routinely and systematically released. Such units include regulated units as defined by chapter 173-303 WAC.

"Sorbent" means a material that is used to soak up free liquids by either adsorption or absorption, or both. *Sorb* means to either adsorb or absorb, or both.

"Special incinerator ash" means ash residues resulting from the operation of incineration or energy recovery facilities managing municipal solid waste from residential, commercial and industrial establishments, if the ash residues are designated as dangerous waste only by this chapter and not designated as hazardous waste by 40 CFR Part 261.

"Special waste" means any state-only dangerous waste that is solid only (nonliquid, nonaqueous, nongaseous), that is: Corrosive waste (WAC 173-303-090 (6)(b)(ii)), toxic waste that has Category D toxicity (WAC 173-303-100(5)), PCB waste (WAC 173-303-9904 under State Sources), or persistent waste that is not EHW (WAC 173-303-100(6)). Any solid waste that is regulated by the United States EPA as hazardous waste cannot be a special waste.

"Spent material" means any material that has been used and as a result of contamination can no longer serve the purpose for which it was produced without processing.

"Stabilization" and "solidification" means a technique that limits the solubility and mobility of dangerous waste constituents. Solidification immobilizes a waste through physical means and stabilization immobilizes the waste by bonding or chemically reacting with the stabilizing material.

"State-only dangerous waste" means a waste designated only by this chapter, chapter 173-303 WAC, and is not regulated as a hazardous waste under 40 CFR Part 261.

"State operator" means the person responsible for the overall operation of the state's extremely hazardous waste facility on the Hanford Reservation.

"Storage" means the holding of dangerous waste for a temporary period. "Accumulation" of dangerous waste, by the generator on the site of generation, is not storage as long as the generator complies with the applicable requirements of WAC 173-303-200 and 173-303-201.

"Sudden accident" means an unforeseen and unexpected occurrence which is not continuous or repeated in nature.

"Sump" means any pit or reservoir that meets the definition of tank and those troughs/trenches connected to it that serves to collect dangerous waste for transport to dangerous waste storage, treatment, or disposal facilities; except that as used in the landfill, surface impoundment, and waste pile rules, "sump" means any lined pit or reservoir that serves to collect liquids drained from a leachate collection and removal system or leak detection system for subsequent removal from the system.

"Surface impoundment" means a facility or part of a facility which is a natural topographic depression, man-made excavation, or diked area formed primarily of earthen materials (although it may be lined with man-made materials), and which is designed to hold an accumulation of liquid dangerous wastes or dangerous wastes containing free liquids. The term includes holding, storage, settling, and aeration pits, ponds, or lagoons, but does not include injection wells.

"Tank" means a stationary device designed to contain an accumulation of dangerous waste, and which is constructed primarily of nonearthen materials to provide structural support.

"Tank system" means a dangerous waste storage or treatment tank and its associated ancillary equipment and containment system.

"Temporary unit" or "TU" means a tank or container unit used temporarily for the treatment or storage of

remediation waste, that is designated by the director pursuant to WAC 173-303-646(7) for the purpose of implementing the corrective action requirements of WAC 173-303-646 (2) or (3).

"Thermal treatment" means the treatment of dangerous waste in a device which uses elevated temperatures as the primary means to change the chemical, physical, or biological character or composition of the dangerous waste. Examples of thermal treatment processes are incineration, molten salt, pyrolysis, calcination, wet air oxidation, and microwave discharge.

"Thermostat" means a temperature control device that contains metallic mercury in an ampule attached to a bimetal sensing element, and mercury-containing ampules that have been removed from these temperature control devices in compliance with the requirements of WAC 173-303-573 (9)(b)(ii) or (20)(b)(ii).

"TLM₉₆" means the same as "Aquatic LC₅₀".

"Totally enclosed treatment facility" means a facility for treating dangerous waste which is directly connected to a production process and which prevents the release of dangerous waste or dangerous waste constituents into the environment during treatment.

"Toxic" means having the properties to cause or to significantly contribute to death, injury, or illness of man or wildlife.

"Transfer facility" means any transportation related facility including loading docks, parking areas, storage areas, and other similar areas where shipments of hazardous waste are held for ten days or less during the normal course of transportation.

"Transport vehicle" means a motor vehicle or rail car used for the transportation of cargo by any mode. Each cargo-carrying body (trailer, railroad freight car, etc.) is a separate transport vehicle.

"Transportation" means the movement of dangerous waste by air, rail, highway, or water.

"Transporter" means a person engaged in the off-site transportation of dangerous waste.

"Travel time" means the period of time necessary for a dangerous waste constituent released to the soil (either by accident or intent) to enter any on-site or off-site aquifer or water supply system.

"Treatability study" means a study in which a dangerous waste is subjected to a treatment process to determine: Whether the waste is amenable to the treatment process; what pretreatment (if any) is required; the optimal process conditions needed to achieve the desired treatment; the efficiency of a treatment process for a specific waste or wastes; or the characteristics and volumes of residuals from a particular treatment process. Also included in this definition for the purpose of the exemptions contained in WAC 173-303-071 (3)(r) and (s), are liner compatibility, corrosion, and other material compatibility studies and toxicological and health effects studies. A "treatability study" is not a means to commercially treat or dispose of dangerous waste.

"Treatment" means the physical, chemical, or biological processing of dangerous waste to make such wastes nondangerous or less dangerous, safer for transport, amenable for energy or material resource recovery, amenable for storage, or reduced in volume, with the exception of compacting,

repackaging, and sorting as allowed under WAC 173-303-400(2) and 173-303-600(3).

"Treatment zone" means a soil area of the unsaturated zone of a land treatment unit within which dangerous wastes are degraded, transformed or immobilized.

"Triple rinsing" means the cleaning of containers in accordance with the requirements of WAC 173-303-160 (2)(b), containers.

"Underground injection" means the subsurface emplacement of fluids through a bored, drilled, or driven well, or through a dug well, where the depth of the dug well is greater than the largest surface dimension.

"Underground tank" means a device meeting the definition of "tank" in this section whose entire surface area is totally below the surface of and covered by the ground.

"Unfit-for-use tank system" means a tank system that has been determined through an integrity assessment or other inspection to be no longer capable of storing or treating dangerous waste without posing a threat of release of dangerous waste to the environment.

"Universal waste" means any of the following dangerous wastes that are subject to the universal waste requirements of WAC 173-303-573:

Batteries as described in WAC 173-303-573(2); and
Thermostats as described in WAC 173-303-573(3).

"Universal waste handler":

Means:

A generator (as defined in this section) of universal waste; or

The owner or operator of a facility, including all contiguous property, that receives universal waste from other universal waste handlers, accumulates universal waste, and sends universal waste to another universal waste handler, to a destination facility, or to a foreign destination.

Does not mean:

A person who treats (except under the provisions of WAC 173-303-573 (9)(a) or (b) or (20)(a) or (b)) disposes of, or recycles universal waste; or

A person engaged in the off-site transportation of universal waste by air, rail, highway, or water, including a universal waste transfer facility.

"Universal waste transfer facility" means any transportation-related facility including loading docks, parking areas, storage areas and other similar areas where shipments of universal waste are held during the normal course of transportation for ten days or less.

"Universal waste transporter" means a person engaged in the off-site transportation of universal waste by air, rail, highway, or water.

"Unsaturated zone" means the zone between the land surface and the water table.

"Uppermost aquifer" means the geological formation nearest the natural ground surface that is capable of yielding ground water to wells or springs. It includes lower aquifers that are hydraulically interconnected with this aquifer within the facility property boundary.

"Used oil" means any oil that has been refined from crude oil, or any synthetic oil, that has been used((+)) and((+)) as a result of such use((+)) is contaminated by physical or chemical impurities.

"Vessel" includes every description of watercraft, used or capable of being used as a means of transportation on the water.

"Wastewater treatment unit" means a device that:

Is part of a wastewater treatment facility which is subject to regulation under either:

Section 402 or section 307(b) of the Federal Clean Water Act; or

Chapter 90.48 RCW, State Water Pollution Control Act, provided that the waste treated at the facility is a state-only dangerous waste; and

Handles dangerous waste in the following manner:

Receives and treats or stores an influent wastewater; or

Generates and accumulates or treats or stores a wastewater treatment sludge; and

Meets the definition of tank or tank system in this section.

"Water or rail (bulk shipment)" means the bulk transportation of dangerous waste which is loaded or carried on board a vessel or railcar without containers or labels.

"Zone of engineering control" means an area under the control of the owner/operator that, upon detection of a dangerous waste release, can be readily cleaned up prior to the release of dangerous waste or dangerous constituents to ground water or surface water.

Any terms used in this chapter which have not been defined in this section have either the same meaning as set forth in Title 40 CFR Parts 260, 264, 270, and 124 or else have their standard, technical meaning.

As used in this chapter, words in the masculine gender also include the feminine and neuter genders, words in the singular include the plural, and words in the plural include the singular.

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 Order 94-30, filed 10/19/95, effective 11/19/95)

WAC 173-303-045 References to EPA's hazardous waste and permit regulations. (1) Any references in this chapter to any parts, subparts, or sections from EPA's hazardous waste regulations, including 40 CFR Parts 260 through 280 and Part 124, are in reference to those rules as they existed on July 1, ((4995)) 1996, except for the following:

(a) Update III to SW 846 is incorporated in accordance with the June 13, 1997, Federal Register Volume 62, Number 114; and

(b) The Land Disposal Restriction requirements for carbamate wastes are those that appeared at 40 CFR 268.39 and 268.40 in the June 17, 1997, Federal Register Volume 62, Number 116. Copies of the appropriate referenced federal requirements are available upon request from the department.

(2) The following sections and any cross-reference to these sections are not incorporated or adopted by reference:

(a) 40 CFR Parts 260.1 (b)(4)-(6) and 260.20-22.

(b) 40 CFR Parts 264.1 (d) and (f); 265.1 (c)(4); 264.149-150 and 265.149-150; 264.301(k); and 265.430.

(c) 40 CFR Parts 268.5 and 268.6; 268 Subpart B; and 268.42(b).

(d) 40 CFR Parts 270.1 (c)(1)(i); 270.60(b); and 270.64.

(e) 40 CFR Parts 124.1 (b)-(e); 124.4; 124.5(e); 124.9; 124.10 (a)(1)(iv); 124.12(e); 124.14(d); 124.15 (b)(2); 124.16; 124.17(b); 124.18; 124.19; and 124.21.

AMENDATORY SECTION (Amending Order 94-30, filed 10/19/95, effective 11/19/95)

WAC 173-303-070 Designation of dangerous waste.

(1) Purpose and applicability.

(a) This section describes the procedures for determining whether or not a solid waste is DW or EHW.

(b) The procedures in this section are applicable to any person who generates a solid waste (including recyclable materials) that is not exempted or excluded by this chapter or by the department. Any person who must determine whether or not their solid waste is designated must follow the procedures set forth in subsection (3) of this section. Any person who determines by these procedures that their waste is designated DW or EHW is subject to all applicable requirements of this chapter.

(c) The requirements for the small quantity generator exemption are found in subsection (8) of this section.

(2)(a) Once a material has been determined to be a dangerous waste, then any solid waste generated from the recycling, treatment, storage, or disposal of that dangerous waste is a dangerous waste unless and until:

(i) The generator has been able to accurately describe the variability or uniformity of the waste over time, and has been able to obtain demonstration samples which are representative of the waste's variability or uniformity; and

(ii)(A) It does not exhibit any of the characteristics of WAC 173-303-090; however, wastes that exhibit a characteristic at the point of generation may still be subject to the requirements of WAC 173-303-140 (2)(a), even if they no longer exhibit a characteristic at the point of land disposal; and

(B) If it was a listed waste under WAC 173-303-080 through 173-303-083, it also has been exempted pursuant to WAC 173-303-910(3); or

(iii) If originally designated only through WAC 173-303-100, it does not meet any of the criteria of WAC 173-303-100.

Such solid waste will include but not be limited to any sludge, spill residue, ash emission control dust, leachate, or precipitation run-off. Precipitation run-off will not be considered a dangerous waste if it can be shown that the run-off has not been contaminated with the dangerous waste, or that the run-off is adequately addressed under existing state laws (e.g. chapter 90.48 RCW), or that the run-off does not exhibit any of the criteria or characteristics described in WAC 173-303-100.

(b) Materials that are reclaimed from solid wastes and that are used beneficially (as provided in WAC 173-303-016 and 173-303-017) are not solid wastes and hence are not dangerous wastes under this section unless the reclaimed material is burned for energy recovery or used in a manner constituting disposal.

(c) Notwithstanding subsections (1) and (2) of this section and provided the debris does not exhibit a character-

istic identified in WAC 173-303-090, the following materials are not subject to regulation under this chapter:

(i) Hazardous debris that has been treated using one of the required extraction or destruction technologies specified in Table 1 of 40 CFR section 268.45; persons claiming this exclusion in an enforcement action will have the burden of proving by clear and convincing evidence that the material meets all of the exclusion requirements; or

(ii) Debris that the department, considering the extent of contamination, has determined is no longer contaminated with hazardous waste.

(3) Designation procedures.

(a) To determine whether or not a solid waste is designated as a dangerous waste a person must:

(i) First, determine if the waste is a listed discarded chemical product, WAC 173-303-081;

(ii) Second, determine if the waste is a listed dangerous waste source, WAC 173-303-082;

(iii) Third, if the waste is not listed in WAC 173-303-081 or 173-303-082, or for the purposes of compliance with the federal land disposal restrictions as adopted by reference in WAC 173-303-140, determine if the waste exhibits any dangerous waste characteristics, WAC 173-303-090; and

(iv) Fourth, if the waste is not listed in WAC 173-303-081 or 173-303-082, and does not exhibit a characteristic in WAC 173-303-090, determine if the waste meets any dangerous waste criteria, WAC 173-303-100.

(b) A person must check each section, in the order set forth, until they determine whether the waste is designated as a dangerous waste. Once the waste is determined to be a dangerous waste, further designation is not required except as required by subsection (4) or (5) of this section. If a person has checked the waste against each section and the waste is not designated, then the waste is not subject to the requirements of chapter 173-303 WAC.

Any person who wishes to seek an exemption for a waste which has been designated DW or EHW must comply with the requirements of WAC 173-303-072.

(c) For the purpose of determining if a solid waste is a dangerous waste as identified in WAC 173-303-080 through 173-303-100, a person must either:

(i) Test the waste according to the methods, or an approved equivalent method, set forth in WAC 173-303-110; or

(ii) Apply knowledge of the waste in light of the materials or the process used, when:

(A) Such knowledge can be demonstrated to be sufficient for determining whether or not it designated and/or designated properly; and

(B) All data and records supporting this determination in accordance with WAC 173-303-210(3) are retained on-site.

(4) Testing required. Notwithstanding any other provisions of this chapter, the department may require any person to test a waste according to the methods, or an approved equivalent method, set forth in WAC 173-303-110 to determine whether or not the waste is designated under the dangerous waste lists, characteristics, or criteria, WAC 173-303-080 through 173-303-100. Such testing may be required if the department has reason to believe that the waste would be designated DW or EHW by the dangerous waste lists, characteristics, or criteria, or if the department

has reason to believe that the waste is designated improperly (e.g., the waste has been designated DW but should actually be designated EHW). If a person, pursuant to the requirements of this subsection, determines that the waste is a dangerous waste or that its designation must be changed, then they are subject to the applicable requirements of this chapter 173-303 WAC. The department will base a requirement to test a waste on evidence that includes, but is not limited to:

(a) Test information indicating that the person's waste may be DW or EHW;

(b) Evidence that the person's waste is very similar to another persons' already designated DW or EHW;

(c) Evidence that the persons' waste has historically been a DW or EHW;

(d) Evidence or information about a person's manufacturing materials or processes which indicate that the wastes may be DW or EHW; or

(e) Evidence that the knowledge or test results a person has regarding a waste is not sufficient for determining whether or not it designated and/or designated properly.

(5) Additional designation required. A generator must manage dangerous waste under the most stringent management standards that apply. Subsections (5)(a) ~~((and))~~ through (c) of this section describe how waste that has been designated as DW under the dangerous waste lists, WAC 173-303-080 through 173-303-082, or characteristics, WAC 173-303-090, must also be designated under the dangerous waste criteria, WAC 173-303-100, because designation under the criteria may change how the waste must be managed. Additional designation is required when:

(a) The waste is designated as DW with a QEL of 220 pounds and the generator otherwise qualifies as a small quantity generator. In this case, a generator must determine if their DW is also designated as a toxic EHW, WAC 173-303-100, with a QEL of 2.2 pounds; or

(b) The waste is designated as DW and the waste is to be discharged to a POTW operating under WAC 173-303-802(4) (Permits by rule). In this case, a generator must determine if the waste is also an EHW under WAC 173-303-100; or

(c) The waste is designated as a state-only DW and the waste is to be:

(i) Burned for energy recovery, as used oil, under the provisions of WAC 173-303-515; or

(ii) Land disposed within the state. In this case, a generator must determine if the waste is also an EHW under WAC 173-303-100.

(6) Dangerous waste numbers. When a person is reporting or keeping records on a dangerous waste, they must use all the dangerous waste numbers which they know are assignable to the waste from the dangerous waste lists, characteristics, or criteria. For example, if the waste is ignitable *and* contains ~~((extremely hazardous concentrations of halogenated hydrocarbons))~~ more than 5 mg/l leachable lead when tested for the toxicity characteristic, they must use the dangerous waste numbers of D001 and ~~((WP01))~~ D008. This will not be construed as requiring a person to designate their waste beyond those designation requirements set forth in subsections (2), (3), (4), and (5) of this section.

(7) Quantity exclusion limits; aggregated waste quantities.

(a) Quantity exclusion limits. In each of the designation sections describing the lists, characteristics, and criteria, quantity exclusion limits (QEL) are identified. The QEL are used to distinguish when a dangerous waste is only subject to the small quantity generator provisions, and when a dangerous waste is subject to the full requirements of this chapter. Any solid waste which is not excluded or exempted and which is listed by or exhibits the characteristics or meets the criteria of this chapter is a dangerous waste. Small quantity generators who produce dangerous waste below the QEL are subject to the requirements described in subsection (8) of this section.

(b) Aggregated waste quantities. A person may be generating, accumulating, or storing more than one kind of dangerous waste. In such cases, they must consider the aggregate quantity of their wastes when determining whether or not their waste amounts exceed the specific limits for waste accumulation or the specific quantity exclusion limits (QEL) for waste generation. Waste quantities must be aggregated for all wastes with common QEL's. Example: If a person generates 100 pounds of an ignitable waste and 130 pounds of a persistent waste, then both wastes are regulated because their aggregate waste quantity (230 pounds) exceeds their common QEL of 220 pounds. On the other hand, if a person generates one pound of a toxic EHW and 218 pounds of a corrosive waste, their quantities would not be aggregated because they do not share a common QEL (2.2 pounds and 220 pounds, respective QEL's). (Note: In order to remain a small quantity generator, the total quantity of dangerous waste generated in one month, all DW and EHW regardless of their QELs, must not equal or exceed 220 pounds. Not more than 2.2 pounds of a waste with a 2.2 pound QEL may be part of that total.)

~~(c) ((For the purposes of this subsection, when aggregating waste quantities, generators must include in their calculation, dangerous wastes produced by on-site treatment or recycling of dangerous wastes and dangerous wastes being accumulated or stored except for the following categories of waste that are excluded from the quantity determinations.~~

~~(i) Dangerous waste that is recycled and that is excluded from regulation under WAC 173-303-120 (2)(a), (3)(e), (e), or (f) is not included in the quantity determinations of this section and is not subject to any requirements of this subsection.~~

~~(ii) Spent materials that are generated, reclaimed, and subsequently reused on-site, so long as such spent materials have been counted once.~~

~~(iii) Dangerous waste that is removed from on-site storage.)~~ When making the quantity determinations of this subsection and WAC 173-303-170 through 173-303-230, generators must include all dangerous wastes they generate, except dangerous waste that:

(i) Is exempt from regulation under WAC 173-303-071;

or
(ii) Is recycled under WAC 173-303-120 (2)(a), (3)(c), (e), or (h); or

(iii) Is managed immediately upon generation only in on-site elementary neutralization units, wastewater treatment units, or totally enclosed treatment facilities as defined in WAC 173-303-040; or

(iv) Is recycled, without prior storage or accumulation, only in an on-site process subject to regulation under WAC 173-303-120 (4)(a); or

(v) Is spent lead-acid batteries managed under the requirements of WAC 173-303-120 (3)(f) and 173-303-520; or

(vi) Is universal waste managed under WAC 173-303-077 and 173-303-573.

(d) In determining the quantity of dangerous waste generated, a generator need not include:

(i) Dangerous waste when it is removed from on-site storage; or

(ii) Reserve; or

(iii) Spent materials that are generated, reclaimed, and subsequently reused on-site, as long as such spent materials have been counted once (Note: If after treatment or reclamation a residue is generated with a different waste code(s), that residue must be counted); or

(iv) The container holding/containing the dangerous waste as described under WAC 173-303-160(1).

(8) Small quantity generators.

(a) A person is a small quantity generator and subject to the requirements of this subsection if:

(i) Their waste is dangerous waste under subsection (3) of this section, and the quantity of waste generated per month (or the aggregated quantity if more than one kind of waste is generated) does not equal or exceed the quantity exclusion limit (QEL) for such waste (or wastes) as described in WAC 173-303-070(7); and

(ii) The quantity accumulated or stored does not exceed 2200 pounds for wastes with a 220 pound QEL and 2.2 pounds for waste with a 2.2 pound QEL. (Exception: The accumulation limit for the acute hazardous wastes described in WAC 173-303-081 (2)(iv) and 173-303-082 (2)(b) is 220 lbs); and

(iii) The total quantity of dangerous waste generated in one month, all DW and EHW regardless of their QELs, does not equal or exceed 220 pounds. If a person generates any dangerous wastes that exceed the QEL or accumulates or stores waste that exceeds the accumulation limits, then all dangerous waste generated, accumulated, or stored by that person is subject to the requirements of this chapter. A small quantity generator who generates in excess of the quantity exclusion limits or, accumulates, or stores waste in excess of the accumulation limits becomes subject to the full requirements of this chapter and cannot again be a small quantity generator until after all dangerous waste on-site at the time he or she became fully regulated have been removed, treated, or disposed.

Example. If a person generates four pounds of an acute hazardous waste discarded chemical product (QEL is 2.2 pounds) and 200 pounds of an ignitable waste (QEL is 220 pounds), then both wastes are fully regulated, and the person is not a small quantity generator for either waste.

(Comment: If a generator generates acute hazardous waste in a calendar month in quantities greater than the QELs, all quantities of that acute hazardous waste are subject to full regulation under this chapter. "Full regulation" means the regulations applicable to generators of greater than 2200 pounds of dangerous wastes in a calendar month.)

(b) Small quantity generators will not be subject to the requirements of this chapter if they:

(i) Designate their waste in accordance with WAC 173-303-070; and

(ii) Manage their waste in a way that does not pose a potential threat to human health or the environment; and

(iii) Either treat or dispose of their dangerous waste in an on-site facility, or ensure delivery to an off-site facility, either of which, if located in the U.S., is:

(A) Permitted (including permit-by-rule, interim status, or final status) under WAC 173-303-800 through 173-303-840;

(B) Authorized to manage dangerous waste by another state with a hazardous waste program approved under 40 CFR Part 271, or by EPA under 40 CFR Part 270;

(C) Permitted to manage moderate-risk waste under chapter 173-304 WAC (Minimum functional standards for solid waste handling), operated in accordance with state and local regulations, and consistent with the applicable local hazardous waste plan that has been approved by the department;

(D) A facility that beneficially uses or reuses, or legitimately recycles or reclaims the dangerous waste, or that treats the waste prior to such recycling activities;

(E) Permitted to manage municipal or industrial solid waste in accordance with state or local regulations, or in accordance with another state's solid waste laws if the waste is sent out-of-state; ((or))

(F) A publicly owned treatment works (POTW) provided that small quantity generator(s) comply with the provisions of the domestic sewage exclusion found in WAC 173-303-071 (3)(a); or

(G) For universal waste managed under WAC 173-303-573, a universal waste handler or destination facility subject to the requirements of WAC 173-303-573; and

(iv) Submit an annual report in accordance with WAC 173-303-220 if they have obtained an EPA/state identification number pursuant to WAC 173-303-060.

(c) If a small quantity generator's wastes are mixed with used oil, the mixture is subject to WAC 173-303-510 if it is destined to be burned for energy recovery. Any material produced from such a mixture by processing, blending, or other treatment is also regulated if it is destined to be burned for energy recovery.

AMENDATORY SECTION (Amending Order 94-30, filed 10/19/95, effective 11/19/95)

WAC 173-303-071 Excluded categories of waste. (1)

Purpose. Certain categories of waste have been excluded from the requirements of chapter 173-303 WAC, except for WAC 173-303-050, because they generally are not dangerous waste, are regulated under other state and federal programs, or are recycled in ways which do not threaten public health or the environment. WAC 173-303-071 describes these excluded categories of waste.

(2) Excluding wastes. Any persons who generate a common class of wastes and who seek to categorically exclude such class of wastes from the requirements of this chapter must comply with the applicable requirements of WAC 173-303-072. No waste class will be excluded if any

of the wastes in the class are regulated as hazardous waste under 40 CFR Part 261.

(3) Exclusions. The following categories of waste are excluded from the requirements of chapter 173-303 WAC, except for WAC 173-303-050, 173-303-145, and 173-303-960, and as otherwise specified:

(a)(i) Domestic sewage; and

(ii) Any mixture of domestic sewage and other wastes that passes through a sewer system to a publicly owned treatment works (POTW) for treatment provided:

(A) The generator or owner/operator has obtained a state waste discharge permit issued by the department, a temporary permit obtained pursuant to RCW 90.48.200, or pretreatment permit (or written discharge authorization) from a local sewage utility delegated pretreatment program responsibilities pursuant to RCW 90.48.165;

(B) The waste discharge is specifically authorized in a state waste discharge permit, pretreatment permit or written discharge authorization, or in the case of a temporary permit the waste is accurately described in the permit application;

(C) The waste discharge is not prohibited under 40 CFR Part 403.5; and

(D) The waste prior to mixing with domestic sewage must not exhibit dangerous waste characteristics for ignitability, corrosivity, reactivity, or toxicity as defined in WAC 173-303-090, and must not meet the dangerous waste criteria for toxic dangerous waste or persistent dangerous waste under WAC 173-303-100, unless the waste is treatable in the publicly owned treatment works (POTW) where it will be received. This exclusion does not apply to the generation, treatment, storage, recycling, or other management of dangerous wastes prior to discharge into the sanitary sewage system;

(b) Industrial wastewater discharges that are point-source discharges subject to regulation under Section 402 of the Clean Water Act. This exclusion does not apply to the collection, storage, or treatment of industrial waste-waters prior to discharge, nor to sludges that are generated during industrial wastewater treatment. Owners or operators of certain wastewater treatment facilities managing dangerous wastes may qualify for a permit-by-rule pursuant to WAC 173-303-802(5);

(c) Household wastes, including household waste that has been collected, transported, stored, or disposed. Wastes (~~which~~) that are residues from or are generated by the management of household wastes (e.g., leachate, ash from burning of refuse-derived fuel) are not excluded by this provision. "Household wastes" means any waste material (including, but not limited to, garbage, trash, and sanitary wastes in septic tanks) derived from households (including single and multiple residences, hotels and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds, and day-use recreation areas). A resource recovery facility managing municipal solid waste will not be deemed to be treating, storing, disposing of, or otherwise managing dangerous wastes for the purposes of regulation under this chapter, if such facility:

(i) Receives and burns only;

(A) Household waste (from single and multiple dwellings, hotels, motels, and other residential sources); and

(B) Solid waste from commercial or industrial sources that does not contain dangerous waste; and

(ii) Such facility does not accept dangerous wastes and the owner or operator of such facility has established contractual requirements or other appropriate notification or inspection procedures to assure that dangerous wastes are not received at or burned in such facility;

(d) Agricultural crops and animal manures which are returned to the soil as fertilizers;

(e) Asphaltic materials designated only for the presence of PAHs by WAC 173-303-100(6). For the purposes of this exclusion, asphaltic materials means materials (~~intended and~~) that have been used for structural and construction purposes (e.g., roads, dikes, paving) (~~which are~~) that were produced from mixtures of oil and sand, gravel, ash or similar substances;

(f) Roofing tars and shingles, except that these wastes are not excluded if mixed with wastes listed in WAC 173-303-081 or 173-303-082, or if they exhibit any of the characteristics specified in WAC 173-303-090;

(g) Treated wood waste and wood products including:

(i) Arsenical-treated wood that fails the test for the toxicity characteristic of WAC 173-303-090(8) (dangerous waste numbers D004 through D017 only), or which fails any state criteria, if the waste is generated by persons who utilize the arsenical-treated wood for the materials' intended end use.

(ii) Wood treated with other preservatives provided such treated wood is, within one hundred eighty days after becoming waste:

(A) Disposed of at a landfill that is permitted in accordance with WAC 173-304-460, minimum functional standards for solid waste handling, or chapter 173-351 WAC, criteria for municipal solid waste landfills, and provided that such wood is neither a listed waste under WAC 173-303-9903 and 173-303-9904 nor a TCLP waste under WAC 173-303-090(8); or

(B) Sent to a facility that will legitimately treat or recycle the treated wood waste, and manage any residue in accordance with that state's dangerous waste regulations; or

(C) Sent off-site to a permitted TSD facility or placed in an on-site facility which is permitted by the department under WAC 173-303-800 through WAC 173-303-845. In addition, creosote-treated wood is excluded when burned for energy recovery in an industrial furnace or boiler that has an order of approval issued pursuant to RCW 70.94.152 by ecology or a local air pollution control authority to burn creosote treated wood.

(h) Irrigation return flows;

(i) Materials subjected to in-situ mining techniques which are not removed from the ground during extraction;

(j) Mining overburden returned to the mining site;

(k) Polychlorinated biphenyl (PCB) wastes:

(i) PCB wastes whose disposal is regulated by EPA under 40 CFR 761.60 (Toxic Substances Control Act) and that are dangerous either because:

(A) They fail the test for toxicity characteristic (WAC 173-303-090(8), Dangerous waste codes D018 through D043 only); or

(B) Because they are designated only by this chapter and not designated by 40 CFR Part 261, are exempt from regulation under this chapter except for WAC 173-303-505 through 173-303-525, 173-303-960, those sections specified in subsection (3) of this section, and 40 CFR Part 266;

(ii) Wastes that would be designated as dangerous waste under this chapter solely because they are listed as W001 under WAC 173-303-9904 when such wastes are stored and disposed in a manner equivalent to the requirements of 40 CFR Part 761 Subpart D for PCB concentrations of 50 ppm or greater.

(l) Samples:

(i) Except as provided in (l)(ii) of this subsection, a sample of solid waste or a sample of water, soil, or air, which is collected for the sole purpose of testing to determine its characteristics or composition, is not subject to any requirements of this chapter, when:

(A) The sample is being transported to a lab for testing or being transported to the sample collector after testing; or

(B) The sample is being stored by the sample collector before transport, by the laboratory before testing, or by the laboratory after testing prior to return to the sample collector; or

(C) The sample is being stored temporarily in the laboratory after testing for a specific purpose (for example, until conclusion of a court case or enforcement action).

(ii) In order to qualify for the exemptions in (l)(i) of this subsection, a sample collector shipping samples to a laboratory and a laboratory returning samples to a sample collector must:

(A) Comply with United States Department of Transportation (DOT), United States Postal Service (USPS), or any other applicable shipping requirements; or

(B) Comply with the following requirements if the sample collector determines that DOT or USPS, or other shipping requirements do not apply:

(I) Assure that the following information accompanies the sample:

(AA) The sample collector's name, mailing address, and telephone number;

(BB) The laboratory's name, mailing address, and telephone number;

(CC) The quantity of the sample;

(DD) The date of shipment;

(EE) A description of the sample; and

(II) Package the sample so that it does not leak, spill, or vaporize from its packaging.

(iii) This exemption does not apply if the laboratory determines that the waste is dangerous but the laboratory is no longer meeting any of the conditions stated in (l)(i) of this subsection;

~~(m) ((Asbestos wastes or asbestos containing wastes which would be designated only as respiratory carcinogens by WAC 173-303-100, and any other inorganic wastes which are designated only under WAC 173-303-100 because they are respiratory carcinogens, if these wastes are managed in compliance with or in a manner equivalent to the asbestos management procedures of 40 CFR Part 61))~~ Reserve;

(n) Dangerous waste generated in a product or raw material storage tank, a product or raw material transport vehicle or vessel, a product or raw material pipeline, or in a manufacturing process unit or an associated nonwaste-treatment-manufacturing unit until it exits the unit in which it was generated. This exclusion does not apply to surface impoundments, nor does it apply if the dangerous waste remains in the unit more than ninety days after the unit

ceases to be operated for manufacturing, or for storage or transportation of product or raw materials;

(o) Waste pickle liquor sludge generated by lime stabilization of spent pickle liquor from the iron and steel industry (SIC codes 331 and 332), except that these wastes are not excluded if they exhibit one or more of the dangerous waste criteria (WAC 173-303-100) or characteristics (WAC 173-303-090);

(p) Wastes from burning any of the materials exempted from regulation by WAC 173-303-120 (2)(a)(v), ((~~(vi)~~), (vii), (viii), or (ix). These wastes are not excluded if they exhibit one or more of the dangerous waste characteristics or criteria;

(q) As of January 1, 1987, secondary materials that are reclaimed and returned to the original process or processes in which they were generated where they are reused in the production process provided:

(i) Only tank storage is involved, and the entire process through completion of reclamation is closed by being entirely connected with pipes or other comparable enclosed means of conveyance;

(ii) Reclamation does not involve controlled flame combustion (such as occurs in boilers, industrial furnaces, or incinerators);

(iii) The secondary materials are never accumulated in such tanks for over twelve months without being reclaimed;

(iv) The reclaimed material is not used to produce a fuel, or used to produce products that are used in a manner constituting disposal; and

(v) A generator complies with the requirements of chapter 173-303 WAC for any residues (e.g., sludges, filters, etc.) produced from the collection, reclamation, and reuse of the secondary materials.

(r) Treatability study samples.

(i) Except as provided in (r)(ii) of this subsection, persons who generate or collect samples for the purpose of conducting treatability studies as defined in WAC 173-303-040 are not subject to the requirements of WAC 173-303-180, 173-303-190, and 173-303-200 (1)(a), nor are such samples included in the quantity determinations of WAC 173-303-070 (7) and (8) and 173-303-201 when:

(A) The sample is being collected and prepared for transportation by the generator or sample collector; or

(B) The sample is being accumulated or stored by the generator or sample collector prior to transportation to a laboratory or testing facility; or

(C) The sample is being transported to the laboratory or testing facility for the purpose of conducting a treatability study; or

(D) The sample or waste residue is being transported back to the original generator from the laboratory or testing facility.

(ii) The exemption in (r)(i) of this subsection is applicable to samples of dangerous waste being collected and shipped for the purpose of conducting treatability studies provided that:

(A) The generator or sample collector uses (in "treatability studies") no more than 10,000 kg of media contaminated with nonacute dangerous waste, 1000 kg of nonacute dangerous waste other than contaminated media, 1 kg of acutely hazardous waste, 2500 kg of media contaminated

with acutely hazardous waste for each process being evaluated for each generated waste stream; and

(B) The mass of each sample shipment does not exceed 10,000 kg; the 10,000 kg quantity may be all media contaminated with nonacute dangerous waste or may include 2500 kg of media contaminated with acute hazardous waste, 1000 kg of dangerous waste, and 1 kg of acutely hazardous waste; and

(C) The sample must be packaged so that it will not leak, spill, or vaporize from its packaging during shipment and the requirements of (r)(ii)(C)(I) or (II) of this subsection are met.

(I) The transportation of each sample shipment complies with United States Department of Transportation (DOT), United States Postal Service (USPS), or any other applicable shipping requirements; or

(II) If the DOT, USPS, or other shipping requirements do not apply to the shipment of the sample, the following information must accompany the sample:

(AA) The name, mailing address, and telephone number of the originator of the sample;

(BB) The name, address, and telephone number of the laboratory or testing facility that will perform the treatability study;

(CC) The quantity of the sample;

(DD) The date of shipment; and

(EE) A description of the sample, including its dangerous waste number.

(D) The sample is shipped, within ninety days of being generated or of being taken from a stream of previously generated waste, to a laboratory or testing facility which is exempt under (s) of this subsection or has an appropriate final facility permit or interim status; and

(E) The generator or sample collector maintains the following records for a period ending three years after completion of the treatability study:

(I) Copies of the shipping documents;

(II) A copy of the contract with the facility conducting the treatability study;

(III) Documentation showing:

(AA) The amount of waste shipped under this exemption;

(BB) The name, address, and EPA/state identification number of the laboratory or testing facility that received the waste;

(CC) The date the shipment was made; and

(DD) Whether or not unused samples and residues were returned to the generator.

(F) The generator reports the information required under (r)(ii)(E)(III) of this subsection in its annual report.

(iii) The department may grant requests, on a case-by-case basis, for up to an additional two years for treatability studies involving bioremediation. The department may grant requests on a case-by-case basis for quantity limits in excess of those specified in (r)(ii)(A) and (B) of this subsection and (s)(iv) of this subsection, for up to an additional 5000 kg of media contaminated with nonacute dangerous waste, 500 kg of nonacute dangerous waste, 1 kg of acute hazardous waste, and 2500 kg of media contaminated with acute hazardous waste or for up to an additional 10,000 kg of wastes regulated only by this chapter and not regulated by 40 CFR Part 261, to conduct further treatability study evaluation:

(A) In response to requests for authorization to ship, store and conduct treatability studies on additional quantities in advance of commencing treatability studies. Factors to be considered in reviewing such requests include the nature of the technology, the type of process, (e.g., batch versus continuous), size of the unit undergoing testing (particularly in relation to scale-up considerations), the time/quantity of material required to reach steady state operating conditions, or test design considerations such as mass balance calculations.

(B) In response to requests for authorization to ship, store, and conduct treatability studies on additional quantities after initiation or completion of initial treatability studies, when:

There has been an equipment or mechanical failure during the conduct of a treatability study; there is a need to verify the results of previously conducted treatability study; there is a need to study and analyze alternative techniques within a previously evaluated treatment process; or there is a need to do further evaluation of an ongoing treatability study to determine final specifications for treatment.

(C) The additional quantities and time frames allowed in (r)(iii)(A) and (B) of this subsection are subject to all the provisions in (r)(i) and (r)(ii)(C) through (F) of this subsection. The generator or sample collector must apply to the department where the sample is collected and provide in writing the following information:

(I) The reason the generator or sample collector requires additional time or quantity of sample for the treatability study evaluation and the additional time or quantity needed;

(II) Documentation accounting for all samples of dangerous waste from the waste stream which have been sent for or undergone treatability studies including the date each previous sample from the waste stream was shipped, the quantity of each previous shipment, the laboratory or testing facility to which it was shipped, what treatability study processes were conducted on each sample shipped, and the available results of each treatability study;

(III) A description of the technical modifications or change in specifications which will be evaluated and the expected results;

(IV) If such further study is being required due to equipment or mechanical failure, the applicant must include information regarding the reason for the failure or breakdown and also include what procedures or equipment improvements have been made to protect against further breakdowns; and

(V) Such other information that the department considers necessary.

(s) Samples undergoing treatability studies at laboratories and testing facilities. Samples undergoing treatability studies and the laboratory or testing facility conducting such treatability studies (to the extent such facilities are not otherwise subject to chapter 70.105 RCW) are not subject to the requirements of this chapter, except WAC 173-303-050, 173-303-145, and 173-303-960 provided that the conditions of (s)(i) through (xiii) of this subsection are met. A mobile treatment unit (MTU) may qualify as a testing facility subject to (s)(i) through (xiii) of this subsection. Where a group of MTUs are located at the same site, the limitations specified in (s)(i) through (xiii) of this subsection apply to

the entire group of MTUs collectively as if the group were one MTU.

(i) No less than forty-five days before conducting treatability studies the laboratory or testing facility notifies the department in writing that it intends to conduct treatability studies under this subsection.

(ii) The laboratory or testing facility conducting the treatability study has an EPA/state identification number.

(iii) No more than a total of 10,000 kg of "as received" media contaminated with nonacute dangerous waste, 2500 kg of media contaminated with acute hazardous waste or 250 kg of other "as received" dangerous waste is subject to initiation of treatment in all treatability studies in any single day. "As received" waste refers to the waste as received in the shipment from the generator or sample collector.

(iv) The quantity of "as received" dangerous waste stored at the facility for the purpose of evaluation in treatability studies does not exceed 10,000 kg, the total of which can include 10,000 kg of media contaminated with nonacute dangerous waste, 2500 kg of media contaminated with acute hazardous waste, 1000 kg of nonacute dangerous wastes other than contaminated media, and 1 kg of acutely hazardous waste. This quantity limitation does not include treatment materials (including nondangerous solid waste) added to "as received" dangerous waste.

(v) No more than ninety days have elapsed since the treatability study for the sample was completed, or no more than one year (two years for treatability studies involving bioremediation) has elapsed since the generator or sample collector shipped the sample to the laboratory or testing facility, whichever date first occurs. Up to 500 kg of treated material from a particular waste stream from treatability studies may be archived for future evaluation up to five years from the date of initial receipt. Quantities of materials archived are counted against the total storage limit for the facility.

(vi) The treatability study does not involve the placement of dangerous waste on the land or open burning of dangerous waste.

(vii) The laboratory or testing facility maintains records for three years following completion of each study that show compliance with the treatment rate limits and the storage time and quantity limits. The following specific information must be included for each treatability study conducted:

(A) The name, address, and EPA/state identification number of the generator or sample collector of each waste sample;

(B) The date the shipment was received;

(C) The quantity of waste accepted;

(D) The quantity of "as received" waste in storage each day;

(E) The date the treatment study was initiated and the amount of "as received" waste introduced to treatment each day;

(F) The date the treatability study was concluded;

(G) The date any unused sample or residues generated from the treatability study were returned to the generator or sample collector or, if sent to a designated TSD facility, the name of the TSD facility and its EPA/state identification number.

(viii) The laboratory or testing facility keeps, on-site, a copy of the treatability study contract and all shipping paper

associated with the transport of treatability study samples to and from the facility for a period ending three years from the completion date of each treatability study.

(ix) The laboratory or testing facility prepares and submits a report to the department by March 15 of each year that estimates the number of studies and the amount of waste expected to be used in treatability studies during the current year, and includes the following information for the previous calendar year:

(A) The name, address, and EPA/state identification number of the laboratory or testing facility conducting the treatability studies;

(B) The types (by process) of treatability studies conducted;

(C) The names and addresses of persons for whom studies have been conducted (including their EPA/state identification numbers);

(D) The total quantity of waste in storage each day;

(E) The quantity and types of waste subjected to treatability studies;

(F) When each treatability study was conducted;

(G) The final disposition of residues and unused sample from each treatability study.

(x) The laboratory or testing facility determines whether any unused sample or residues generated by the treatability study are dangerous waste under WAC 173-303-070 and if so, are subject to the requirements of this chapter, unless the residues and unused samples are returned to the sample originator under the exemption in (r) of this subsection.

(xi) The laboratory or testing facility notifies the department by letter when it is no longer planning to conduct any treatability studies at the site.

(xii) The date the sample was received, or if the treatability study has been completed, the date of the treatability study, is marked and clearly visible for inspection on each container.

(xiii) While being held on site, each container and tank is labeled or marked clearly with the words "dangerous waste" or "hazardous waste." Each container or tank must also be marked with a label or sign which identifies the major risk(s) associated with the waste in the container or tank for employees, emergency response personnel and the public.

Note: If there is already a system in use that performs this function in accordance with local, state, or federal regulations, then such system will be adequate.

(t) Petroleum-contaminated media and debris that fail the test for the toxicity characteristic of WAC 173-303-090(8) (dangerous waste numbers D018 through D043 only) and are subject to the corrective action regulations under 40 CFR Part 280.

(u) Special incinerator ash (as defined in WAC 173-303-040).

(v) Wood ash that would designate solely for corrosivity by WAC 173-303-090 (6)(a)(iii). For the purpose of this exclusion, wood ash means ash residue and emission control dust generated from the combustion of untreated wood, wood treated solely with creosote, and untreated wood fiber materials including, but not limited to, wood chips, saw dust, tree stumps, paper, cardboard, residuals from waste fiber recycling, deinking rejects, and associated wastewater

treatment solids. This exclusion allows for the use of auxiliary fuels including, but not limited to, oils, gas, coal, and other fossil fuels in the combustion process.

(w)(i) Spent wood preserving solutions that have been reclaimed and are reused for their original intended purpose; and

(ii) Wastewaters from the wood preserving process that have been reclaimed and are reused to treat wood.

(x) Nonwastewater splash condenser dross residue from the treatment of K061 in high temperature metals recovery units, provided it is shipped in drums (if shipped) and not land disposed before recovery.

(y) Used oil filters that are recycled in accordance with WAC 173-303-120, as used oil and scrap metal.

(z) Used oil re-refining distillation bottoms that are used as feedstock to manufacture asphalt products.

(aa) Wastes that fail the test for the toxicity characteristic in WAC 173-303-090 because chromium is present or are listed in WAC 173-303-081 or 173-303-082 due to the presence of chromium. The waste must not designate for any other characteristic under WAC 173-303-090, for any of the criteria specified in WAC 173-303-100, and must not be listed in WAC 173-303-081 or 173-303-082 due to the presence of any constituent from WAC 173-303-9905 other than chromium. The waste generator must be able to demonstrate that:

(i) The chromium in the waste is exclusively (or nearly exclusively) trivalent chromium; and

(ii) The waste is generated from an industrial process that uses trivalent chromium exclusively (or nearly exclusively) and the process does not generate hexavalent chromium; and

(iii) The waste is typically and frequently managed in nonoxidizing environments.

(bb)(i) Nonwastewater residues, such as slag, resulting from high temperature metals recovery (HTMR) processing of K061, K062 or F006 waste, in units identified as rotary kilns, flame reactors, electric furnaces, plasma arc furnaces, slag reactors, rotary hearth furnace/electric furnace combinations or industrial furnaces (as defined in WAC 173-303-040 - blast furnaces, smelting, melting and refining furnaces, and other devices the department may add to the list - of the definition for "industrial furnace"), that are disposed in subtitle D units, provided that these residues meet the generic exclusion levels identified in the tables in this paragraph for all constituents, and exhibit no characteristics of dangerous waste. Testing requirements must be incorporated in a facility's waste analysis plan or a generator's self-implementing waste analysis plan; at a minimum, composite samples of residues must be collected and analyzed quarterly and/or when the process or operation generating the waste changes. Persons claiming this exclusion in an enforcement action will have the burden of proving by clear and convincing evidence that the material meets all of the exclusion requirements.

Constituent	Maximum for any single composite sample-TCLP (mg/l)
Generic exclusion levels for K061 and K062 nonwastewater HTMR residues	
Antimony	0.10

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Arsenic	0.50
Barium	7.6
Beryllium	0.010
Cadmium	0.050
Chromium (total)	0.33
(2)Lead	0.15
Mercury	0.009
Nickel	1.0
Selenium	0.16
Silver	0.30
Thallium	0.020
Zinc	70

Generic exclusion levels for F006 nonwastewater HTMR residues

Antimony	0.10
Arsenic	0.50
Barium	7.6
Beryllium	0.010
Cadmium	0.050
Chromium (total)	0.33
Cyanide (total) (mg/kg)	1.8
Lead	0.15
Mercury	0.009
Nickel	1.0
Selenium	0.16
Silver	0.30
Thallium	0.020
Zinc	70

(ii) A one-time notification and certification must be placed in the facility's files and sent to the department for K061, K062 or F006 HTMR residues that meet the generic exclusion levels for all constituents and do not exhibit any characteristics that are sent to subtitle D units. The notification and certification that is placed in the generator's or treater's files must be updated if the process or operation generating the waste changes and/or if the subtitle D unit receiving the waste changes. However, the generator or treater need only notify the department on an annual basis if such changes occur. Such notification and certification should be sent to the department by the end of the calendar year, but no later than December 31. The notification must include the following information: The name and address of the subtitle D unit receiving the waste shipments; the dangerous waste number(s) and treatability group(s) at the initial point of generation; and, the treatment standards applicable to the waste at the initial point of generation. The certification must be signed by an authorized representative and must state as follows: "I certify under penalty of law that the generic exclusion levels for all constituents have been met without impermissible dilution and that no characteristic of dangerous waste is exhibited. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment." These wastes are not excluded if they exhibit one or more of the dangerous waste characteristics (WAC 173-303-090) or criteria (WAC 173-303-100).

(cc) Recovered oil from petroleum refining, exploration and production, and from transportation incident thereto, which is to be inserted into the petroleum refining process (SIC Code 2911) at or before a point (other than direct

insertion into a coker) where contaminants are removed. This exclusion applies to recovered oil stored or transported prior to insertion, except that the oil must not be stored in a manner involving placement on the land, and must not be accumulated speculatively, before being so recycled. Recovered oil is oil that has been reclaimed from secondary materials (such as wastewater) generated from normal petroleum refining, exploration and production, and transportation practices. Recovered oil includes oil that is recovered from refinery wastewater collection and treatment systems, oil recovered from oil and gas drilling operations, and oil recovered from wastes removed from crude oil storage tanks. Recovered oil does not include (among other things) oil-bearing dangerous waste listed in WAC 173-303-9904 (e.g., K048-K052, F037, F038). However, oil recovered from such wastes may be considered recovered oil. Recovered oil also does not include used oil as defined in WAC 173-303-040.

(dd) Dangerous waste Nos. K060, K087, K141, K142, K143, K144, K145, K147, and K148, and any wastes from the coke by-products processes that are dangerous only because they exhibit the Toxicity Characteristic (TC) specified in WAC 173-303-090(8) when, subsequent to generation, these materials are recycled to coke ovens, to the tar recovery process as a feedstock to produce coal tar, or mixed with coal tar prior to the tar's sale or refining. This exclusion is conditioned on there being no land disposal of the wastes from the point they are generated to the point they are recycled to coke ovens or tar recovery or refining processes, or mixed with coal tar.

(ee) Biological treatment sludge from the treatment of one of the following wastes listed in WAC 173-303-9904 - organic waste (including heavy ends, still bottoms, light ends, spent solvents, filtrates, and decantates) from the production of carbamates and carbamoyl oximes (Dangerous Waste No. K156), and wastewaters from the production of carbamates and carbamoyl oximes (Dangerous Waste No. K157) unless it exhibits one or more of the characteristics or criteria of dangerous waste.

AMENDATORY SECTION (Amending Order 94-30, filed 10/19/95, effective 11/19/95)

WAC 173-303-073 Conditional exclusion of special wastes. (1) Purpose. Special wastes pose a relatively low hazard to human health and the environment. The department believes that special wastes can be safely managed with a level of protection that is intermediate between dangerous and nondangerous solid wastes. This section establishes a conditional exclusion for the management of special wastes.

(2) Exclusion. Special wastes are excluded from the requirements of chapter 173-303 WAC, except for WAC 173-303-050; 173-303-060; 173-303-145; 173-303-960; and 173-303-510 excluding subsections (4)(a), (4)(b)(iii), (5), (6)(c), and (6)(d). In addition, special waste must be treated as dangerous waste for purposes of pollution prevention planning as required in chapters 173-307 and 173-305 WAC. Special wastes will not be considered as dangerous waste, provided they are managed in accordance with the standards in this subsection and provided they are disposed, legitimate-

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ly recycled, or treated on-site consistent with the requirements of WAC 173-303-170 (3)(c).

(a) Generators may not accumulate special waste on-site for more than one hundred eighty days from the date the quantity of waste exceeds two thousand two hundred pounds. The generator must keep a written record showing the dates when accumulation of the wastes began;

(b) During accumulation, special waste must be stored in a manner to prevent releases to the environment. This includes, but is not limited to, storing wastes in compatible containers, on impermeable surfaces, or in secondary containment structures, etc.;

(c) Facilities that receive special waste for recycling must meet the requirements of (b) of this subsection and store special wastes for no more than one hundred eighty days.

(d) All workers handling special wastes must be informed of the waste's potential hazard, either through worker training, health and safety plans, or notification of workers on a case-by-case basis;

(e) Special wastes must be transported directly from their site of generation to any off-site recycling, treatment, or disposal destination. The wastes must not pass through any intermediate solid waste processing facility, such as a transfer station, unless:

(i) The transfer station operator has made specific provisions for managing special waste by physical segregation, packing, or other means to ensure that workers and the public are not exposed to the waste stream at the transfer station;

(ii) The provisions are reflected in the facilities operating plans;

(iii) The plans have been approved by the transfer station's solid waste permitting authority; and

(iv) The transfer station operator has informed workers of the wastes' potential hazard according to (d) of this subsection;

(f) A document must accompany special waste during transit which identifies the type and amount of special waste, its place of origin, the identity of the generator, and the facility to which it is directed. An example form is provided in WAC 173-303-9906. The generator and the receiving facility must maintain a record of the facilities receipt of the special waste for at least five years;

(g) Disposal of special waste must be in landfill units which:

(i) Are permitted in accordance with chapter 173-351 WAC, provided that an engineered liner is used to meet the requirements of arid landfill design requirements, WAC 173-351-300 (2)(b), or are permitted under WAC 173-303-800 through 173-303-840 or if out-of-state under 40 CFR Part 258 or Part 270; and

(ii) Are not currently undergoing corrective action under WAC 173-351-440(6), 40 CFR 258.56, or a similar requirement in state regulations approved by the United States EPA pursuant to 42 USC 6945(c)(1)(B).

(3) ~~(Approved facilities. Ecology will issue a list of landfills and transfer stations that meet the preceding qualifying criteria to aid generators who wish to dispose of their waste under the exclusion provided by this section.)~~
Reserve.

NEW SECTION

WAC 173-303-077 Requirements for universal waste. The wastes listed in this section are exempt from regulation under WAC 173-303-140, 173-303-170 through 173-303-9907 (except for WAC 173-303-960), and except as specified in WAC 173-303-573, and therefore are not fully regulated as dangerous waste. The wastes listed in this section are subject to regulation under WAC 173-303-573:

- (1) Batteries as described in WAC 173-303-573(2); and
- (2) Thermostats as described in WAC 173-303-573(3).

AMENDATORY SECTION (Amending Order 94-30, filed 10/19/95, effective 11/19/95)

WAC 173-303-081 Discarded chemical products. (1) A waste will be designated as a dangerous waste if it is handled in any of the manners described in (e) of this subsection, and if it is a residue from the management of:

(a) A commercial chemical product or manufacturing chemical intermediate which has the generic name listed in the discarded chemical products list, WAC 173-303-9903;

(b) An off-specification commercial chemical product or manufacturing chemical intermediate which if it had met specifications would have the generic name listed in the discarded chemical products list, WAC 173-303-9903;

(c) Any containers, inner liners, or residue remaining in a container or in an inner liner removed from a container that has held any commercial chemical product or manufacturing chemical intermediate that has, or any off-specification commercial chemical product or manufacturing chemical intermediate which if it had met specifications would have, the generic name listed on the "P" or "U" discarded chemical products list of WAC 173-303-9903, unless the containers or inner liners are empty as described in WAC 173-303-160(2);

(d) Any residue or contaminated soil, water, or other debris resulting from the cleanup of a spill of a commercial chemical product or manufacturing chemical intermediate which has, or of an off-specification commercial chemical product or manufacturing chemical intermediate which if it had met specifications would have, the generic name listed in the discarded chemical products list, WAC 173-303-9903;

(e) The materials or items described in (a), (b), (c), and (d) of this subsection are dangerous wastes when they are:

(i) Discarded or intended to be discarded as described in WAC 173-303-016 (3)(b)(i);

(ii) Burned for purposes of energy recovery in lieu of their original intended use;

(iii) Used to produce fuels in lieu of their original intended use;

(iv) Applied to the land in lieu of their original intended use; or

(v) Contained in products that are applied to the land in lieu of their original intended use.

(2) Quantity exclusion limits:

(a) A person with a waste or wastes (including residues from the management of wastes) identified in subsection (1) of this section, will be a dangerous waste generator (and may not be considered a small quantity generator as provided in WAC 173-303-070(8)) if the amount of his waste exceeds the following quantity exclusion limits:

(i) For chemicals designated on the "P" discarded chemical products list of WAC 173-303-9903 - 2.2 lbs. (1.0

kg) per month or per batch. Such wastes are designated DW and are identified as acute hazardous wastes;

(ii) For chemicals, and for residues from the cleanup of spills involving chemicals, designated on the "U" discarded chemical products list of WAC 173-303-9903 - 220 lbs. (100 kg) per month or per batch. Such wastes are designated DW;

(iii) For containers or inner liners which held any chemical designated on the "P" discarded chemical products list of WAC 173-303-9903 - 2.2 lbs. (1.0 kg) of residue remaining in the containers or inner liners per month or per batch unless the containers or inner liners meet the definition of empty and have been triple rinsed as described in WAC 173-303-160(2). Such wastes are designated DW and are identified as acute hazardous wastes;

(iv) For residues, contaminated soil, water, or other debris from the cleanup of a spill of any chemical designated on the "P" discarded chemical products list of WAC 173-303-9903 - 220 lbs. (100 kg) per month or per batch. Such wastes are designated DW and are identified as acute hazardous wastes.

(b) A person's total monthly waste quantity is the sum of all their wastes which share a common quantity exclusion limit (e.g., the total quantity of all discarded chemical products with a 2.2 pound QEL, the total quantity of all residues contaminated by discarded chemical products with a 2.2 pound QEL, etc.) which were generated during a month or a batch operation at each specific waste generation site.

(3) Dangerous waste numbers and mixtures. A waste which has been designated as a discarded chemical product dangerous waste must be assigned the dangerous waste number or numbers listed in WAC 173-303-9903 next to the generic chemical or chemicals which caused the waste to be designated. If a person mixes a solid waste with a waste that would be designated as a discarded chemical product under this section, then the entire mixture must be designated. The mixture designation is the same as the designation for the discarded chemical product which was mixed with the solid waste. For example, a mixture containing 2.2 lbs. (1 kg) of Aldrin (dangerous waste number P004, DW designation, QEL of 2.2 lbs.) and 22 lbs. (10 kg) of a solid waste, would be designated DW, and identified as acute hazardous waste. The mixture would have the dangerous waste number P004.

(4) Reserve.

AMENDATORY SECTION (Amending Order 94-30, filed 10/19/95, effective 11/19/95)

WAC 173-303-082 Dangerous waste sources. (1) The dangerous waste sources list appears in WAC 173-303-9904. Any waste that is listed or is a residue from the management of a waste listed on the dangerous waste sources list must be designated a dangerous waste, and identified as DW.

(2) Quantity exclusion limit. A person whose waste is listed in WAC 173-303-9904 (including residues from the management of such wastes) is a dangerous waste generator (and may not be considered a small quantity generator as provided in WAC 173-303-070(8)) if the amount of his waste exceeds the following quantity exclusion limits:

(a) 2.2 lbs. (1 kg) per month or per batch for wastes listed with the dangerous waste numbers F020, F021, F022, F023, F026, or F027. These wastes are designated DW and identified as acute hazardous wastes;

(b) 220 lbs. (100 kg) per month or per batch of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water of a waste listed in (a) of this subsection, or of an acute hazardous waste listed in WAC 173-303-9904 under specific sources ("K" wastes). Note: Acute hazardous K listed wastes are followed by an "H". These wastes are designated DW and identified as acute hazardous wastes; or

(c) 220 lbs. (100 kg) per month or per batch for all other wastes.

(3) Care should be taken in the proper designation of these wastes and of mixtures of these wastes and solid wastes. If a person mixes a solid waste with a waste that would be designated as a dangerous waste source under this section, then the entire mixture is designated as a dangerous waste source. The mixture has the same designation (DW), and the same dangerous waste number as the dangerous waste source which was mixed with the solid waste.

(4) 40 CFR Part 261 Appendix VII *Basis for Listing Hazardous Waste* is adopted by reference.

AMENDATORY SECTION (Amending Order 94-30, filed 10/19/95, effective 11/19/95)

WAC 173-303-090 Dangerous waste characteristics.

(1) Purpose. The purpose of this section is to set forth characteristics which a solid waste might exhibit and which would cause that waste to be a dangerous waste.

(2) Representative samples. The department will consider a sample obtained using any of the applicable sampling methods described in WAC 173-303-110(2), sampling and testing methods, to be a representative sample.

(3) Equivalent test methods. The testing methods specified in this section are the only acceptable methods, unless the department approves an equivalent test method in accordance with WAC 173-303-910(2).

(4) Quantity exclusion limit. A solid waste is a dangerous waste if it exhibits one or more of the dangerous waste characteristics described in subsections (5), (6), (7), and (8) of this section. If a person's solid waste exhibits one or more of these characteristics, then he or she is a dangerous waste generator (and may not be considered a small quantity generator as provided in WAC 173-303-070(8)) if the quantity of their waste exceeds 220 lbs. (100 kg) per month or per batch.

(5) Characteristic of ignitability.

(a) A solid waste exhibits the characteristic of ignitability if a representative sample of the waste has any of the following properties:

(i) It is a liquid, other than an aqueous solution containing less than 24 percent alcohol by volume, and has a flash point less than 60 degrees C (140 degrees F), as determined by a Pensky-Martens Closed Cup Tester, using the test method specified in ASTM Standard D-93-79 or D-93-80, or a Setaflash Closed Cup Tester, using the test method specified in ASTM Standard D-3278-78;

(ii) It is not a liquid and is capable, under standard temperature and pressure, of causing fire through friction,

absorption of moisture or spontaneous chemical changes and, when ignited, burns so vigorously and persistently that it creates a hazard;

(iii) It is an ignitable compressed gas ~~((as))~~ that is defined in 49 CFR ~~((473.300))~~ 173.115 and ~~((as))~~ is determined to be flammable by the test methods described in that regulation; or,

(iv) It is an oxidizer ~~((as defined)),~~ if it is defined as such in 49 CFR ~~((473.151))~~ 173.127 and 173.128.

(b) A solid waste that exhibits the characteristic of ignitability must be designated DW, and assigned the dangerous waste number of D001.

(6) Characteristic of corrosivity.

(a) A solid waste exhibits the characteristic of corrosivity if a representative sample of the waste has any one or more of the following properties:

(i) It is aqueous~~((;))~~ and has a pH less than or equal to 2, or greater than or equal to 12.5, as determined by a pH meter using Method 9040 ~~((or 9041))~~ in "Test Methods for Evaluating Solid Waste ~~((SW-846))~~, Physical/Chemical Methods~~((available from the department))~~," EPA publication SW-846, as incorporated by reference in WAC 173-303-110 (3)(a);

(ii) It is liquid~~((;))~~ and corrodes steel (SAE 1020) at a rate greater than 0.250 inch (6.35 mm) per year at a test temperature of 55 degrees C (130 degrees F) as determined by the test method specified in NACE (National Association of Corrosion Engineers) Standard TM-01-69 as standardized in "Test Methods for ~~((the Evaluation of))~~ Evaluating Solid Waste, Physical/Chemical Methods~~((The NACE Standard is available from the department))~~," EPA Publication SW-846, as incorporated by reference in WAC 173-303-110 (3)(a); or

(iii) It is solid or semi-solid~~((, and when mixed with an equal weight of water results in a solution, the liquid portion of which has the property specified in (a)(i) of this subsection. Procedures for preparing and extracting the solution and liquid are described in the test procedures of WAC 173-303-110 (3)(a)))~~ which, upon testing using Method 9045 in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" (SW 846), results in a pH less than or equal to 2, or greater than or equal to 12.5.

(b) A solid waste that exhibits the characteristic of corrosivity because:

(i) It has either of the properties described in (a)(i) or (ii) of this subsection will be designated DW, and assigned the dangerous waste number of D002;

(ii) It only has the property described in (a)(iii) of this subsection will be designated DW, and assigned the dangerous waste number of WSC2.

(7) Characteristic of reactivity.

(a) A solid waste exhibits the characteristic of reactivity if a representative sample of the waste has any of the following properties:

(i) It is normally unstable and readily undergoes violent change without detonating;

(ii) It reacts violently with water;

(iii) It forms potentially explosive mixtures with water;

(iv) When mixed with water, it generates toxic gases, vapors or fumes in a quantity sufficient to present a danger to human health or the environment;

(v) It is a cyanide or sulfide bearing waste which, when exposed to pH conditions between 2 and 12.5 can generate toxic gases, vapors or fumes in a quantity sufficient to present a danger to human health or the environment;

(vi) It is capable of detonation or explosive reaction if it is subjected to a strong initiating source or if heated under confinement;

(vii) It is readily capable of detonation or explosive decomposition or reaction at standard temperature and pressure; or

(viii) It is a forbidden explosive as defined in 49 CFR ~~((173.51, or a Class A explosive as defined in 49 CFR 173.53, or a Class B explosive))~~ 173.54, or a Class 1 explosive, Division 1.1, Division 1.2, Division 1.3, and Division 1.5, as defined in 49 CFR ~~((473.88))~~ 173.50.

(b) A solid waste that exhibits the characteristic of reactivity must be designated DW, and assigned the dangerous waste number of D003.

(8) Toxicity characteristic.

(a) A solid waste exhibits the ~~((toxicity))~~ characteristic of toxicity if, using the *Toxicity Characteristic Leaching Procedure (TCLP)*, ~~((found in Appendix II of 40 CFR Part 261, which is adopted by reference, or available upon request from the department) or equivalent methods approved by the department under WAC 173-303-110(5)))~~ test Method 1311 in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in WAC 173-303-110 (3)(a), the extract from a representative sample of the waste contains any of the contaminants listed in the toxicity characteristic list in (c) of this subsection, at concentrations equal to or greater than the respective value given in the list. When the waste contains less than 0.5 percent filterable solids, the waste itself, after filtering using the methodology outlined in ~~((the TCLP))~~ Method 1311, is considered to be the extract for the purpose of this subsection.

(b) A solid waste that exhibits the toxicity characteristic has the dangerous waste number specified in the list which corresponds to the toxic contaminant causing it to be dangerous.

(c) Toxicity characteristic list. Any waste that contains contaminants which occur at concentrations at or above the DW threshold must be designated DW.

TOXICITY CHARACTERISTICS LIST:

Maximum Concentration of Contaminants for the Toxicity Characteristic

Dangerous Waste Number	Contaminant	(Chemical Abstracts Services #)	DW (mg/L)
D004	Arsenic	(7440-38-2)	5.0
D005	Barium	(7440-39-3)	100.0
D018	Benzene	(71-43-2)	0.5
D006	Cadmium	(7440-43-9)	1.0
D019	Carbon tetrachloride	(56-23-5)	0.5
D020	Chlordane	(57-74-9)	0.03
D021	Chlorobenzene	(108-90-7)	100.0
D022	Chloroform	(67-66-3)	6.0
D007	Chromium	(7440-47-3)	5.0
D023	o-Cresol	(95-48-7)	200.0
		//	
D024	m-Cresol	(108-39-4)	200.0
		//	

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D025	p-Cresol	(106-44-5)	
		/1/	200.0
D026	Cresol	/1/	200.0
D016	2,4-D	(94-75-7)	10.0
D027	1,4-Dichlorobenzene	(106-46-7)	7.5
D028	1,2-Dichloroethane	(107-06-2)	0.5
D029	1,1-Dichloroethylene	(75-35-4)	0.7
D030	2,4-Dinitrotoluene	(121-14-2)	
		/2/	0.13
D012	Endrin	(72-20-8)	0.02
D031	Heptachlor (and its epoxide)	(76-44-8)	0.008
D032	Hexachlorobenzene	(118-74-1)	
		/2/	0.13
D033	Hexachlorobutadiene	(87-68-3)	0.5
D034	Hexachloroethane	(67-72-1)	3.0
D008	Lead	(7439-92-1)	5.0
D013	Lindane	(58-89-9)	0.4
D009	Mercury	(7439-97-6)	0.2
D014	Methoxychlor	(72-43-5)	10.0
D035	Methyl ethyl ketone	(78-93-3)	200.0
D036	Nitrobenzene	(98-95-3)	2.0
D037	Pentachlorophenol	(87-86-5)	100.0
D038	Pyridine	(110-86-1)	
		/2/	5.0
D010	Selenium	(7782-49-2)	1.0
D011	Silver	(7440-22-4)	5.0
D039	Tetrachloroethylene	(127-18-4)	0.7
D015	Toxaphene	(8001-35-2)	0.5
D040	Trichloroethylene	(79-01-6)	0.5
D041	2,4,5-Trichlorophenol	(95-95-4)	400.0
D042	2,4,6-Trichlorophenol	(88-06-2)	2.0
D017	2,4,5-TP (Silvex)	(93-72-1)	1.0
D043	Vinyl chloride	(75-01-4)	0.2

/1/ If o-, m-, and p-Cresol concentrations cannot be differentiated, the total cresol (D026) concentration is used.

/2/ (~~Quantitation limit is~~) At the time the TC rule was adopted, the quantitation limit was greater than the calculated regulatory level. The quantitation limit therefore (becomes) became the regulatory level.

AMENDATORY SECTION (Amending Order 94-30, filed 10/19/95, effective 11/19/95)

WAC 173-303-100 Dangerous waste criteria. (1) Purpose. The purpose of this section is to describe methods for determining if a solid waste is a dangerous waste by the criteria set forth in this section. The dangerous waste criteria consist of:

- (a) Toxic dangerous wastes; and
 - (b) Persistent dangerous wastes.
- (2) References. The National Institute for Occupational Safety and Health's (NIOSH) Registry of Toxic Effects of Chemical Substances (RTECS), Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402 is adopted by reference.

(3) A person must use data which is available to him, and, when such data is inadequate for the purposes of this section, must refer to the NIOSH RTECS to determine:

- (a) Toxicity data or toxic category for each known constituent in the waste;
- (b) Whether or not each known constituent of the waste is a halogenated (~~hydrocarbon~~) organic compound or a polycyclic aromatic hydrocarbon as defined in WAC 173-303-040.

(4) Quantity exclusion limit. A solid waste is a dangerous waste if it meets one or more of the dangerous waste criteria described in subsections (5) and (6) of this section. If a person's solid waste meets one or more of these criteria then he or she is a dangerous waste generator (and may not

be considered a small quantity generator as provided in WAC 173-303-070(8)) if the quantity of the waste exceeds the following quantity exclusion limits:

(a) For toxic dangerous wastes designated as EHW (WT01), the quantity exclusion limit is 2.2 lbs. per month.

(b) For all other wastes designating under this section the quantity exclusion limit is 220 lbs. (100 kg) per month or per batch.

(5) Toxicity criteria. Except as provided in WAC 173-303-070 (4) or (5), a person must determine if a solid waste meets the toxicity criteria under this section by following either the instructions for book designation, when his knowledge of the waste is sufficient, or by testing the waste using the biological testing methods adopted under WAC 173-303-110(3).

(a) Except as provided in WAC 173-303-070(4), if a person knows only some of the toxic constituents in the waste or only some of the constituent concentrations, and if the waste is undesignated for those known constituents or concentrations, then the waste is not designated for toxicity under this subsection.

(b) Book designation procedure. A person may determine if a waste meets the toxicity criteria by following the book designation instructions as follows:

(i) A person must determine the toxic category for each known constituent. The toxic category for each constituent may be determined from available data, or by obtaining data from the NIOSH RTECS and checking this data against the toxic category table, below. If data is available for more than one of the toxicity criteria (fish, oral, inhalation, or dermal), then the data indicating severest toxicity must be used, and the most acutely toxic category must be assigned to the constituent. If the NIOSH RTECS or other data sources do not agree on the same category, then the category arrived at using the NIOSH RTECS will be used to determine the toxic category. If toxicity data for a constituent cannot be found in the NIOSH RTECS, or other source reasonably available to a person, then the toxic category need not be determined for that constituent.

TOXIC CATEGORY TABLE

Toxic Category	Fish LC ₅₀ (mg/L)*	Oral (Rat) LD ₅₀ (mg/kg)	Inhalation (Rat) LC ₅₀ (mg/L)	Dermal (Rabbit) LD ₅₀ (mg/kg)
X	<0.01	<.5	<.02	< 2
A	0.01 - <0.1	.5 - <5	.02 - <.2	2 - <20
B	0.1 - <1	5 - <50	.2 - <2	20 - <200
C	1 - <10	50 - <500	2 - <20	200 - <2000
D	10 - 100	500 - 5000	20 - 200	2000 - 20,000

* The LC₅₀ data must be from an exposure period greater than or equal to twenty-four hours. LC₅₀ data from any species is acceptable, however, if salmonid LC₅₀ data is available it will supersede all other fish data. If salmonid data is unavailable but fathead minnow data is available, it will supersede all other fish species data.

Note: "Inhalation LC₅₀" means a concentration in milligrams of substance per liter of air which, when administered to the respiratory tract for four hours or less, kills within fourteen days half of a group of ten rats each weighing between 200 and 300 grams.

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(ii) A person whose waste contains one or more toxic constituents must determine the equivalent concentration for the waste from the following formula:

$$\text{Equivalent Concentration(\%)} = \frac{\sum X\%}{1} + \frac{\sum A\%}{10} + \frac{\sum B\%}{100} + \frac{\sum C\%}{1000} + \frac{\sum D\%}{10,000}$$

where $\sum(X,A,B,C, \text{ or } D)\%$ is the sum of all the concentration percentages for a particular toxic category.

Example 1. A person's waste contains: Aldrin (~~((X))~~ A Category) - .01%; Endrin (~~((B))~~ A Category) - 1%; Benzene (~~((C))~~ D Category) - 4%; Phenol (C Category) - 2%; ~~((Cyclohexane))~~ Dinoseb (~~((E))~~ B Category) - 5%; Water (nontoxic) - 87%. The equivalent concentration (E.C.) would be:

$$\begin{aligned} \text{E.C. (\%)} &= ((.01\% + 0\% + 1\% + (4\% + 2\% + 5\%)) + 0\%) \\ &= \frac{.01\% + 0\% + 0.01\% + 0.011\% + 0\% + 0.031\%}{1} \\ &= \frac{0\% + 0.101\% + 0.05\% + 0.002\% + 0.0004\%}{1} = 0.1534\% \end{aligned}$$

So the equivalent concentration equals ~~((0.031\%))~~ 0.1534%.

(iii) A person whose waste contains toxic constituents must determine its designation according to the value of the equivalent concentration:

(A) If the equivalent concentration is less than 0.001%, the waste is not a toxic dangerous waste; or

(B) If the equivalent concentration is equal to or greater than 0.001% and less than 1.0%, the person will designate the waste as DW and assign the dangerous waste number WT02; and

(C) If the equivalent concentration is equal to or less than 0.01%, the DW may also be a special waste; or

(D) If the equivalent concentration is equal to or greater than 1.0%, the person will designate the waste as EHW and assign the dangerous waste number WT01.

Example 1. Continued. The equivalent concentration of ~~((0.031\%))~~ 0.1534% (from Example 1. above) is greater than 0.001% and less than ~~((0.1\%))~~ 1.0%. The waste is DW and the dangerous waste number WT02 must be assigned. Since ~~((0.031\%))~~ 0.1534% is also greater than 0.01%, the waste is not a special waste.

(iv) Reserve.

(c) Designation from bioassay data. A person may determine if a waste meets the toxicity criteria by following the bioassay designation instructions of either:

(i) The DW bioassay. To determine if a waste is DW, a person must establish the toxicity category range (D category toxicity or greater toxicity) of a waste by means of the 100 mg/L acute static fish test or the 5000 mg/kg oral rat test, as described in the biological testing methods (bioassay) adopted in WAC 173-303-110(3). If data from the test indicates that the waste is DW, then the person will assign the dangerous waste number WT02. Otherwise, the waste is not regulated as toxic dangerous waste. No further testing must be done except as provided in WAC 173-303-070 (4) and (5), or if the person chooses to determine whether the waste is EHW, or in the case of state-only solid dangerous

waste, if the person chooses to determine whether the waste is special waste; or

(ii) The EHW and special waste bioassay. To determine if a waste is EHW, a person must establish the toxicity category range of a waste by means of the fish bioassay at 10 mg/L or the rat bioassay at 50 mg/L, as described in the biological testing methods (bioassay) adopted in WAC 173-303-110(3). (NOTE: A fish bioassay at 1 mg/L corresponds with the ~~((proposed))~~ definition of EHW, which includes toxic categories X-B. However, the fish bioassay is not reproducible at these low levels.) If data from the test indicates that the waste is EHW, then the person will assign the dangerous waste number WT01. Otherwise, the waste will be designated DW, and the person will assign the dangerous waste number WT02. A person with state-only solid waste may choose to test a waste to determine if it is special waste. Testing levels for special waste must be at 10 mg/L for the fish bioassay or 500 mg/L for the oral rat bioassay. No further testing must be done except as provided in WAC 173-303-070 (4) and (5), or if the person chooses to test the waste in accordance with WAC 173-303-100 (5)(c)(i) to determine if the waste is not regulated as toxic dangerous waste.

(d) If the designation acquired from book designation and bioassay data do not agree, then bioassay data will be used to designate a waste. If a waste is designated as DW or EHW following the book designation procedure, a person may test the waste by means of the biological testing methods (bioassay) adopted under WAC 173-303-110(3), using either the static acute fish or the acute oral rat method, to demonstrate that the waste is not a dangerous waste or should be designated as DW and not EHW.

(e) A waste designated as DW by toxicity criteria must be assigned the dangerous waste number of WT02. A waste designated as EHW by toxicity criteria must be assigned the dangerous waste number of WT01.

(6) Persistence criteria. For the purposes of this section, persistent constituents are chemical compounds which are either halogenated ~~((hydrocarbons (HH)))~~ organic compounds (HOC), or polycyclic aromatic hydrocarbons (PAH), as defined under WAC 173-303-040. Except as provided in WAC 173-303-070 (4) or (5), a person may determine the identity and concentration of persistent constituents by either applying knowledge of the waste or by testing the waste according to ~~((the chemical testing methods for complying with the dangerous waste regulation adopted under))~~ WAC 173-303-110 (3)(c) Chemical Testing Methods for Designating Dangerous Waste, February 1998.

(a) Except as provided in WAC 173-303-070(4), if a person knows only some of the persistent constituents in the waste, or only some of the constituent concentrations, and if the waste is undesignated for those known constituents or concentrations, then the waste is not designated for persistence under this subsection.

(b) When a waste contains one or more halogenated ~~((hydrocarbons (HH)))~~ organic compounds (HOC) for which the concentrations are known, the total halogenated ~~((hydrocarbon))~~ organic compound concentration must be determined by summing the concentration percentages for all of the halogenated ~~((hydrocarbons))~~ organic compounds for which the ~~((concentrations are))~~ concentration is known.

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Example 2. A waste contains: Carbon tetrachloride - .009%; DDT - .012%; 1,1,1 - trichloroethylene - .020%. The total halogenated ((hydrocarbon)) organic compound concentration would be:

Total ((HH)) HOC Concentration (%) = .009% + .012% + .020% = .041%

(c) A person whose waste contains polycyclic aromatic hydrocarbons (PAH) as defined in WAC 173-303-040, must determine the total PAH concentration by summing the concentration percentages of each of the polycyclic aromatic hydrocarbons for which they know the concentration.

Example 3. A person's waste contains: Chrysene - .08%; 3,4 - benzo(a)pyrene - 1.22%. The total polycyclic aromatic hydrocarbon concentration would be:

Total PAH Concentration (%) = .08% + 1.22% = 1.30%

(d) A person whose waste contains halogenated ((hydrocarbons)) organic compounds and/or polycyclic aromatic hydrocarbons must determine its designation from the persistent dangerous waste table or persistent dangerous waste criteria graph WAC 173-303-9907.

PERSISTENT DANGEROUS WASTE TABLE

If your waste contains . . .	At a total concentration level of . . .	Then your waste's designation, and waste # are. . .
Halogenated ((Hydrocarbons (HH))) <u>Organic Compounds (HOC)</u>	0.01% to 1.0% greater than 1.0%	DW, WP02 EHW, WP01
Polycyclic Aromatic Hydrocarbons (PAH)	greater than 1.0%	EHW*, WP03

* No DW concentration level for PAH.

(7) Reserve.

AMENDATORY SECTION (Amending Order 94-30, filed 10/19/95, effective 11/19/95)

WAC 173-303-104 Generic dangerous waste numbers. (1) Purpose. This section sets forth the dangerous waste number for each of the dangerous waste criteria designations.

(2) Characteristics. A waste which exhibits any of the dangerous waste characteristics, WAC 173-303-090, must be assigned the dangerous waste number corresponding to the characteristic(s) exhibited by the waste.

(3) Criteria. The following table must be used for assigning dangerous waste numbers to wastes designated by the dangerous waste criteria at WAC 173-303-100.

GENERIC DANGEROUS WASTE NUMBERS TABLE

Dangerous Waste#	Dangerous Waste Criteria and Designation
	Toxic Dangerous Wastes
WT01-----	EHW
WT02-----	DW

Persistent Dangerous Wastes
Halogenated ((Hydrocarbons))
Organic Compounds

WP01-----	EHW
WP02-----	DW
WP03-----	Polycyclic Aromatic Hydrocarbons EHW

AMENDATORY SECTION (Amending Order 94-30, filed 10/19/95, effective 11/19/95)

WAC 173-303-110 Sampling and testing methods.

(1) Purpose. This section sets forth the testing methods to be used ((in the process of designating a dangerous waste or of complying with the air emission standards in WAC 173-303-690 and 173-303-691)) to comply with the requirements of this chapter. Quality control procedures specified by the testing method or an approved equivalent method must be followed for the analytical result to be considered valid for designation. All methods and publications listed in this section are incorporated by reference.

(2) Representative samples.

(a) The methods and equipment used for obtaining representative samples of a waste will vary with the type and form of the waste. The department will consider samples collected using the sampling methods below or the most recent version of such methods for wastes with properties similar to the indicated materials, to be representative samples of the wastes:

- (i) Crushed or powdered material - ASTM Standard D346-75;
- (ii) Extremely viscous liquid - ASTM Standard D140-70;
- (iii) Fly ash-like material - ASTM Standard D2234-86;
- (iv) Soil-like material - ASTM Standard D1452-80 (Reapproved 1990);
- (v) Soil or rock-like material - ASTM Standard D420-93;
- (vi) Containerized liquid wastes - "COLIWASA" described in ((Test Methods for Evaluating Solid Waste, Physical/Chemical Methods),) SW-846, ((revised July 1982, as amended by Update 1 (April 1984) and Update 2 (April 1985))) as incorporated by reference at WAC 173-303-110 (3)(a); and,

(vii) Liquid waste in pits, ponds, lagoons, and similar reservoirs - "Pond Sampler" described in ((Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods),) SW-846, ((revised July 1982, as amended by Update 1 (April 1984) and Update 2 (April 1985))) as incorporated by reference at WAC 173-303-110 (3)(a).

(b) Copies of these representative sampling methods are available from the department except for the ASTM standards which can be obtained by writing to:

ASTM
1916 Race Street
Philadelphia, PA 19103.

(3) Test procedures. Copies of the test procedures listed in this subsection can be obtained by writing to the appropriate address below:

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For copies of Department of Ecology test methods:

Attn: Test Procedures
Hazardous Waste Section
Department of Ecology
PO Box 47600
Olympia, Washington 98504-7600

For copies of SW 846, including updates, and 40 CFR Part 261:

Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402
(202) 512-1800

For copies of ASTM methods:

ASTM
1916 Race Street
Philadelphia, PA 19103

For copies of APTI methods:

APTI
National Technical Information Service
5285 Port Royal Road
Springfield, VA 22161

The document titles and included test procedures are as follows:

(a) (~~Chemical Testing Methods for Complying with the state of Washington Dangerous Waste Regulation, March 1982, revised July 1983, March 1984, and May 1993 describing methods for testing:~~

~~(i) Ignitability;~~

~~(ii) Corrosivity, including the addendum, Test Method for Determining pH of Solutions in Contact with Solids, March 1984;~~

~~(iii) Reactivity;~~

~~(iv) Toxicity characteristic leaching procedure;~~

~~(v) Halogenated hydrocarbons; and~~

~~(vi) Polycyclic aromatic hydrocarbons;)) Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, EPA Publication, SW-846 (Third Edition (November 1986) as amended by Updates I (July 1992), II (September 1994), IIA (August 1993), IIB (January 1995), and III (December 1996)). The Third Edition of SW-846 and its Updates (document number 955-001-00000-1) are available from the Superintendent of Documents;~~

(b) Biological Testing Methods, Department of Ecology Publication #80-12, the latest revision, describing procedures for:

(i) Static acute fish toxicity test; and

(ii) Acute oral rat toxicity test;

(c) (~~Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846 (Third Edition, November, 1986 as amended by Updates I (July, 1992), II (September, 1994), IIA (August, 1993), IIB (January, 1995), and III) is adopted by reference. This includes, among others:~~

~~(i) Method 9095 (Paint Filter Liquids Test), demonstrating the absence or presence of free liquids in either a containerized or bulk waste.~~

~~(ii) Reserved;)) Chemical Testing Methods for Designating Dangerous Waste, Department of Ecology Publication #97-407, February 1998 describing methods for testing:~~

(i) Ignitability;

(ii) Corrosivity;

(iii) Reactivity;

(iv) Toxicity characteristic leaching procedure;

(v) Halogenated organic compounds; and

(vi) Polycyclic aromatic hydrocarbons.

~~(d) ((40 CFR Part 261 Appendix X is adopted by reference for the purpose of analysis for chlorinated dibenzo-p-dioxins and dibenzofurans;)) Reserve;~~

(e)(i) The determination of Polychlorinated Biphenyls in Transformer Fluids and Waste Oils, EPA-600/4-81-045; and

(ii) Analysis of Polychlorinated Biphenyls in Mineral Insulating Oils by Gas Chromatography, ASTM Standard D 4059-86.

(f) 40 CFR Part 261 Appendix III Chemical Analysis Test Methods, ((which lists sampling and analysis methods contained)) which refers to appropriate analytical procedures to determine whether a sample contains a given toxic constituent in Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, EPA Publication SW-846, and 40 CFR Part 261 Appendix II, which refers to Method 1311 Toxicity Characteristic Leaching Procedure ((are adopted by reference)).

(g) The following publications for air emission standards ~~((are incorporated by reference)).~~

(i) ASTM Standard Method for Analysis of Reformed Gas by Gas Chromatography, ASTM Standard D 1946-82.

(ii) ASTM Standard Test Method for Heat of Combustion of Hydrocarbon Fuels by Bomb Calorimeter (High-Precision Method), ASTM Standard D 2382-83.

(iii) ASTM Standard Practices for General Techniques of Ultraviolet-Visible Quantitative Analysis, ASTM Standard E 169-87.

(iv) ASTM Standard Practices for General Techniques of Infrared Quantitative Analysis, ASTM Standard E 168-88.

(v) ASTM Standard Practice for Packed Column Gas Chromatography, ASTM Standard E 260-85.

(vi) ASTM Standard Test Method for Aromatics in Light Naphthas and Aviation Gasolines by Gas Chromatography, ASTM Standard D 2267-88.

(vii) ASTM Standard Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteriscope, ASTM Standard D 2879-86.

(viii) APTI Course 415: Control of Gaseous Emissions, EPA Publication EPA-450/2-81-005, December 1981.

(h) The following publications:

(i) "Flammable and Combustible Liquids Code" (1977 or 1981), available from the National Fire Protection Association, 470 Atlantic Avenue, Boston, MA 02210.

(ii) U.S. EPA, "Screening Procedures for Estimating the Air Quality Impact of Stationary Sources, Revised," October 1992, EPA Publication No. EPA-450/R-92-019, Environmental Protection Agency, Research Triangle Park, NC.

(iii) "ASTM Standard Test Methods for Preparing Refuse-Derived Fuel (RDF) Samples for Analyses of Metals," ASTM Standard E926-88, Test Method C-Bomb, Acid Digestion Method, available from American Society for Testing Materials, 1916 Race Street, Philadelphia, PA 19103.

(4) Substantial changes to the testing methods described above will be made only after the department has provided adequate opportunity for public review and comment on the

proposed changes. The department may, at its discretion, schedule a public hearing on the proposed changes.

(5) Equivalent testing methods. Any person may request the department to approve an equivalent testing method by submitting a petition, prepared in accordance with WAC 173-303-910(2), to the department.

AMENDATORY SECTION (Amending Order 94-30, filed 10/19/95, effective 11/19/95)

WAC 173-303-120 Recycled, reclaimed, and recovered wastes. (1) This section describes the requirements for persons who recycle materials that are solid wastes and dangerous. Except as provided in subsections (2) and (3) of this section, dangerous wastes that are recycled are subject to the requirements for generators, transporters, and storage facilities of subsection (4) of this section. Dangerous wastes that are recycled will be known as "recyclable materials."

(2)(a) The following recyclable materials are solid wastes and sometimes are dangerous wastes. However, they are subject only to the requirements of (b) of this subsection, WAC 173-303-050, 173-303-145 and 173-303-960:

- (i) Industrial ethyl alcohol that is reclaimed;
- (ii) ~~((Used batteries (or used battery cells) returned to a battery manufacturer for regeneration;))~~ Reserve;

(iii) Used oil that exhibits one or more of the characteristics or criteria of dangerous waste and is recycled in some manner other than:

- (A) Being burned for energy recovery; or
- (B) Being used in a manner constituting disposal;
- (iv) Scrap metal;

(v) Fuels produced from the refining of oil-bearing dangerous wastes along with normal process streams at a petroleum refining facility if such wastes result from normal petroleum refining, production, and transportation practices (this exemption does not apply to fuels produced from oil recovered from oil-bearing dangerous wastes where such recovered oil is already excluded under WAC 173-303-071 (3)(cc));

(vi) ~~((Oil reclaimed from dangerous waste resulting from normal petroleum refining, production, and transportation practices, which oil is to be refined along with normal process streams at a petroleum refining facility;))~~ Reserve;

(vii) Coke and coal tar from the iron and steel industry that contains dangerous waste from the iron and steel production process;

(viii)(A) Dangerous waste fuel produced from oil-bearing dangerous wastes from petroleum refining, production, or transportation practices, or produced from oil reclaimed from such dangerous wastes, where such dangerous wastes are reintroduced into a process that does not use distillation or does not produce products from crude oil so long as the resulting fuel meets the used oil specification under WAC 173-303-515 (1)(d) and so long as no other dangerous wastes are used to produce the dangerous waste fuel;

(B) Dangerous waste fuel produced from oil-bearing dangerous waste from petroleum refining production, and transportation practices, where such dangerous wastes are reintroduced into a refining process after a point at which contaminants are removed, so long as the fuel meets the

used oil fuel specification under WAC 173-303-515 (1)(d); and

(C) Oil reclaimed from oil-bearing dangerous wastes from petroleum refining, production, and transportation practices, which reclaimed oil is burned as a fuel without reintroduction to a refining process, so long as the reclaimed oil meets the used oil fuel specification under WAC 173-303-515 (1)~~((e))~~ (d); and

(ix) Petroleum coke produced from petroleum refinery dangerous wastes containing oil ~~((at the same facility at which such wastes were generated))~~ by the same person who generated the waste, unless the resulting coke product exhibits one or more of the characteristics of dangerous waste in WAC 173-303-090.

(b) Any recyclable material listed in (a) of this subsection will be subject to the applicable requirements listed in subsection (4) of this section if the department determines, on a case-by-case basis, that:

(i) It is being accumulated, used, reused, or handled in a manner that poses a threat to public health or the environment; or

(ii) Due to the dangerous constituent(s) in it, any use or reuse would pose a threat to public health or the environment. Such recyclable material will be listed in WAC 173-303-016(6).

(3) The following recyclable materials are not subject to the requirements of this section but are subject to the requirements of WAC 173-303-070 through 173-303-110, 173-303-160, 173-303-500 through 173-303-525, and all applicable provisions of WAC 173-303-800 through 173-303-840:

(a) Recycling requirements for state-only dangerous wastes (see WAC 173-303-500);

(b) Recyclable materials used in a manner constituting disposal (see WAC 173-303-505);

(c) Spent CFC or HCFC refrigerants that are recycled on-site or sent to be reclaimed off-site (see WAC 173-303-506);

(d) Dangerous wastes burned for energy recovery in boilers and industrial furnaces that are not regulated under Subpart O of 40 CFR Part 265 or WAC 173-303-670 (see WAC 173-303-510);

(e) Used oil that is burned for energy recovery in boilers and industrial furnaces that are not regulated under Subpart O of 40 CFR Part 265 or WAC 173-303-670, if such used oil:

(i) Exhibits one or more of the characteristics of a dangerous waste; or

(ii) Is designated as DW solely through WAC 173-303-100; or

(iii) Is designated solely as W001, (see WAC 173-303-515);

(f) Spent lead-acid batteries that are being reclaimed (see WAC 173-303-520);

(g) Recyclable materials from which precious metals are reclaimed (see WAC 173-303-525);

(h) Spent antifreeze that is recycled on-site or sent to be recycled off-site (see WAC 173-303-522).

(4) Those recycling processes not specifically discussed in subsections (2) and (3) of this section are generally subject to regulation only up to and including storage prior to recycling. For the purpose of this section, recyclable

materials received from off-site will be considered stored unless they are moved into an active recycling process within twenty-four hours after being received. An active recycling process refers to a dynamic recycling operation that occurs within a recycling unit such as a distillation or centrifuge unit. The phrase does not refer to passive storage-like activities that occur, for example, when tanks or containers are used for phase separation or for settling impurities. Passive storage-like activities are not eligible for the recycling exemption under this subsection.

The recycling process itself is generally exempt from permitting unless the department determines, on a case-by-case basis, that the recycling process poses a threat to public health or the environment.

Unless specified otherwise in subsections (2) and (3) of this section:

(a) Generators of recyclable materials are subject to all applicable requirements of this chapter including, but not limited to, WAC 173-303-170 through 173-303-230;

(b) Transporters of recyclable materials are subject to all applicable requirements of this chapter including, but not limited to, WAC 173-303-240 through 173-303-270;

(c) Owners or operators of facilities that receive recyclable materials from off-site and recycle these recyclable materials without storing them before they are recycled are subject to the following requirements:

(i) WAC 173-303-060,

(ii) WAC 173-303-120 (4)(e),

(iii) WAC 173-303-283 through 173-303-290,

(iv) WAC 173-303-310 through 173-303-395,

(v) WAC 173-303-630 (2) through (10), and

(vi) WAC 173-303-640 (2) through (10), except 173-303-640 (8)(c) and the second sentence of WAC 173-303-640 (8)(a) (i.e., a recycler, unless otherwise required to do so, does not have to prepare a closure plan, a cost estimate for closure, or provide financial responsibility for his tank system to satisfy the requirements of this section). In lieu of the dates in WAC 173-303-640 (2) and (4), for existing tank systems regulated under this subsection, owners and operators must complete the assessment of the tank system's integrity by June 1, 1992, and must meet the secondary containment requirements of WAC 173-303-640(4) by January 12, 1993;

(vii) The owner or operator must obtain data, by screening-type analysis if necessary, confirming the designation of each waste stream, such that each dangerous waste received can be effectively recycled without jeopardizing human health or the environment. The owner or operator must verify the waste designation periodically, so that it is accurate and current, but at least once every six months or on a batch basis if shipments of a specific waste stream are less frequent. Copies of all analyses and data must be retained for at least five years and made available to the department upon request.

(d) Owners or operators of facilities that store recyclable materials before they are recycled are subject to the following requirements including, but not limited to:

(i) For all recyclers, the applicable provisions of:

(A) WAC 173-303-280 through 173-303-395,

(B) WAC 173-303-800 through 173-303-840,

(C) WAC 173-303-140 (2)(a),

(D) WAC 173-303-120 (4)(e);

(ii) For recyclers with interim status permits, the applicable storage provisions of WAC 173-303-400 including Subparts F through L of 40 CFR Part 265;

(iii) For recyclers with final facility permits, the applicable storage provisions of:

(A) WAC 173-303-600 through 173-303-650, and

(B) WAC 173-303-660.

(e) Owners and operators of facilities subject to dangerous waste permitting requirements with dangerous waste management units that recycle hazardous wastes are subject to the requirements of WAC 173-303-690 and 173-303-691 (Air emission standards for process vents and equipment leaks) for final status facilities, and 40 CFR Part 265 Subparts AA and BB, incorporated by reference at WAC 173-303-400(3) for interim status facilities.

(5) Use of the used oil recycling statute, chapter 70.95I RCW. This subsection applies to persons who use or manage used oil as defined under chapter 70.95I RCW and its implementing regulations, as amended. The department requires persons who use or manage used oils to do so in accordance with chapter 70.95I RCW and its implementing regulations, as amended.

AMENDATORY SECTION (Amending Order 94-30, filed 10/19/95, effective 11/19/95)

WAC 173-303-140 Land disposal restrictions. (1) Purpose.

(a) The purpose of this section is to encourage the best management practices for dangerous wastes according to the priorities of RCW 70.105.150 which are, in order of priority:

(i) Reduction;

(ii) Recycling;

(iii) Physical, chemical, and biological treatment;

(iv) Incineration;

(v) Stabilization and solidification; and

(vi) Landfill.

(b) This section identifies dangerous wastes that are restricted from land disposal, describes requirements for restricted wastes, and defines the circumstances under which a prohibited waste may continue to be land disposed.

(c) For the purposes of this section, the term "landfill," as stated in the priorities of RCW 70.105.150, will be the same as the term "land disposal." Land disposal will be used in this section to identify the lowest waste management priority.

(2) Applicability.

The land disposal restrictions of this section apply to any person who owns or operates a dangerous waste treatment, storage, or disposal facility in Washington state and to any person who generates or transports dangerous waste.

(a) Land disposal restrictions for wastes designated in accordance with WAC 173-303-070 (3)(a)(i), (ii), and (iii) are the restrictions set forth by the Environmental Protection Agency in 40 CFR Part 268 which are incorporated by reference into this regulation and the restrictions set forth in subsections (3) through (7) of this section. The words "regional administrator" (in 40 CFR) will mean the "department(-)", except for 40 CFR Parts 268.5 and 268.6; 268 Subpart B; and 268.42(b). The authority for implementing these excluded CFR sections remains with the U.S. Environmental Protection Agency. The exemption and exception

provisions of subsections (3) through (7) of this section are not applicable to the federal land disposal restrictions.

(b) Land disposal restrictions for state-only dangerous waste are the restrictions set forth in subsections (3) through (7) of this section.

(3) Definitions.

When used in this section the following terms have the meaning provided in this subsection. All other terms have the meanings given under WAC 173-303-040.

(a) "Dangerous waste constituents" means those constituents listed in WAC 173-303-9905 and any other constituents which have caused a waste to be a dangerous waste under this chapter.

(b) "Land disposal" means placement in a facility or on the land with the intent of leaving the dangerous waste at closure, and includes, but is not limited to, placement for disposal purposes in a: Landfill; surface impoundment; waste pile; injection well; land treatment facility; salt dome or salt bed formation; underground cave or mine; concrete vault or bunker.

(c) "Organic/carbonaceous waste" means a dangerous waste that contains combined concentrations of greater than ten percent organic/carbonaceous constituents in the waste; organic/carbonaceous constituents are those substances that contain carbon-hydrogen, carbon-halogen, or carbon-carbon chemical bonding.

(d) "Solid acid waste" means a dangerous waste that exhibits the characteristic of low pH under the corrosivity test((s)) of ~~((either))~~ WAC 173-303-090 (6)(a)~~((iii) or)~~ (iii).

(e) "Stabilization" and "solidification" mean a technique that limits the solubility and mobility of dangerous waste constituents. Solidification immobilizes a waste through physical means and stabilization immobilizes the waste by bonding or chemically reacting with the stabilizing material.

(4) Land disposal restrictions and prohibitions. The land disposal requirements of this subsection apply to land disposal in Washington state.

(a) Disposal of extremely hazardous waste (EHW). No person may land dispose of EHW, except as provided in subsection (5) of this section, at any land disposal facility in the state. No person may land dispose of EHW at the facility established under RCW 70.105.050, except as provided by subsections (5), (6), and (7) of this section. A person is encouraged to reclaim, recycle, recover, treat, detoxify, neutralize, or otherwise process EHW to remove or reduce its harmful properties or characteristics, provided that such processing is performed in accordance with the requirements of this chapter.

(b) Disposal of liquid waste. Special requirements for bulk and containerized liquids.

(i) Effective May 8, 1985, the placement of bulk or noncontainerized liquid hazardous waste or hazardous waste containing free liquids (whether or not sorbents have been added) in any landfill is prohibited. (40 CFR 264.314(a) which applies prior to May 8, 1985, is incorporated by reference.)

(ii) Containers holding free liquids must not be placed in a landfill unless:

(A) All free-standing liquid:

(I) Has been removed by decanting, or other methods;

or

(II) Has been mixed with sorbent or stabilized (solidified) so that free-standing liquid is no longer observed; or

(III) Has been otherwise eliminated; or

(B) The container is very small, such as an ampule; or

(C) The container is designed to hold free liquids for use other than storage, such as a battery or capacitor; or

(D) The container is a labpack and is disposed of in accordance with WAC 173-303-161 and this chapter.

(iii) To demonstrate the absence or presence of free liquids in either a containerized or a bulk waste, the following tests must be used: Method 9095 (Paint Filter Liquids Test) as described in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods((-))" ~~((EPA Publication ((No-)) SW-846((-)))~~ as incorporated by reference in WAC 173-303-110 (3)(a).

(iv) Sorbents used to treat free liquids to be disposed of in landfills must be nonbiodegradable. Nonbiodegradable sorbents are: Materials listed or described in (b)(iv)(A) of this subsection; materials that pass one of the tests in (b)(iv)(B) of this subsection; or materials that are determined by the department to be nonbiodegradable through WAC 173-303-910.

(A) Nonbiodegradable sorbents.

(I) Inorganic minerals, other inorganic materials, and elemental carbon (e.g., aluminosilicates, clays, smectites, Fuller's earth, bentonite, calcium bentonite, montmorillonite, calcined montmorillonite, kaolinite, micas (illite), vermiculites, zeolites; calcium carbonate (organic free limestone); oxides/hydroxides, alumina, lime, silica (sand), diatomaceous earth; perlite (volcanic glass); expanded volcanic rock; volcanic ash; cement kiln dust; fly ash; rice hull ash; activated charcoal/activated carbon); or

(II) High molecular weight synthetic polymers (e.g., polyethylene, high density polyethylene (HDPE), polypropylene, polystyrene, polyurethane, polyacrylate, polynorborene, polyisobutylene, ground synthetic rubber, cross-linked allylstyrene and tertiary butyl copolymers). This does not include polymers derived from biological material or polymers specifically designed to be degradable; or

(III) Mixtures of these nonbiodegradable materials.

(B) Tests for nonbiodegradable sorbents.

(I) The sorbent material is determined to be nonbiodegradable under ASTM Method G21-70 (1984a)-Standard Practice for Determining Resistance of Synthetic Polymer Materials to Fungi; or

(II) The sorbent material is determined to be nonbiodegradable under ASTM Method G22-76 (1984b)-Standard Practice for Determining Resistance of Plastics to Bacteria; or

(III) The sorbent material is determined to be nonbiodegradable under OECD (Organization for Economic Cooperation and Development) test 301B: [CO₂ Evolution (Modified Sturm Test)].

(v) Effective November 8, 1985, the placement of any liquid which is not a hazardous waste in a landfill is prohibited unless the owner or operator of such landfill demonstrates to the department, or the department determines, that:

(A) The only reasonably available alternative to the placement in such landfill is placement in a landfill or unlined surface impoundment, whether or not permitted or

operating under interim status, which contains, or may reasonably be anticipated to contain, hazardous waste; and

(B) Placement in such owner or operator's landfill will not present a risk of contamination of any underground source of drinking water (as that term is defined in 40 CFR Section 144.3.)

(c) Disposal of solid acid waste. No person may land dispose solid acid waste, except as provided in subsections (5), (6), or (7) of this section. A person is encouraged to reclaim, recycle, recover, treat, detoxify, neutralize, or otherwise process these wastes to remove or reduce their harmful properties or characteristics, provided that such processing is performed in accordance with the requirements of this chapter.

(d) Disposal of organic/carbonaceous waste.

(i) No person may land dispose organic/carbonaceous waste, except as provided in subsections (5), (6), or (7) of this section. A person is encouraged to reclaim, recycle, recover, treat, detoxify, or otherwise process these wastes to remove or reduce their harmful properties or characteristics, provided that such processing is performed in accordance with the requirements of this chapter. Organic/carbonaceous wastes must be incinerated as a minimum management method according to the dangerous waste management priorities as defined in subsection (1)(a) of this section.

(ii) This prohibition against the land disposal of organic/carbonaceous waste does not apply to black mud generated from the caustic leach recovery of cryolite at primary aluminum smelting plants.

(iii) This prohibition against the land disposal of organic/carbonaceous waste does not apply to any person who certifies to the department that recycling, treatment and incineration facilities are not available within a radius of one thousand miles from Washington state's borders. Such certification must be sent to the department by certified mail and must include: The name, address and telephone number of the person certifying; a brief description of the organic/carbonaceous waste covered by the certification; a discussion of the efforts undertaken to identify available recycling, treatment and incineration facilities; and the signature of the person responsible for the certification and development of information used to support the certification. Records and information supporting the certification must be retained by the certifying person and must be made available to the department upon request.

A certification that has been properly submitted to the department will remain valid until the department determines that a recycling, treatment or incineration facility is available within a radius of one thousand miles from Washington state's borders and the person who submitted the certification is unable to demonstrate otherwise. A recycling, treatment or incineration facility will be considered by the department to be available if such facility: Is operating, and; can safely and legally recycle, treat or incinerate the organic/carbonaceous waste, and; has sufficient capacity to receive and handle significant amounts of the waste, and; agrees to accept the waste.

(5) Treatment in land disposal facilities. The land disposal restrictions in subsection (4) of this section do not apply to persons treating dangerous wastes in surface impoundments, waste piles, or land treatment facilities

provided that such treatment is performed in accordance with the requirements of this subsection and this chapter.

(a) Surface impoundment treatment.

Liquid waste, extremely hazardous waste (EHW), solid acid waste, and organic/carbonaceous waste may be placed in surface impoundments for purposes of treatment provided the owner/operator can demonstrate that effective treatment of the dangerous waste constituents will occur and at closure the owner/operator complies with the prohibitions and restrictions of subsection (4) of this section.

(b) Waste pile treatment.

Liquid waste, extremely hazardous waste (EHW), solid acid waste, and organic/carbonaceous waste may be placed in waste piles for purposes of treatment provided the owner/operator can demonstrate that effective treatment of dangerous waste constituents will occur and that at closure the owner/operator will be in compliance with the prohibitions and restrictions of subsection (4) of this section.

(c) Land treatment.

Liquid waste, extremely hazardous waste (EHW), and organic/carbonaceous waste may be land treated provided that the owner/operator can demonstrate that effective treatment of dangerous waste constituents will occur, and at the end of the post-closure care period the owner/operator will be in compliance with subsection (4) of this section.

(6) Case-by-case exemptions to a land disposal prohibition. Any person may petition the department for an exemption from a prohibition in subsection (4) of this section for the land disposal of a dangerous waste. The procedures to submit a petition to the department are specified in WAC 173-303-910(6). The department may deny any petition if it determines that there is a potential for dangerous waste constituents to migrate from the land disposal facility where the waste is to be placed. The department will deny any petition when exemption would result in a substantial or imminent threat to public health or the environment. The department will deny any petition when exemption would result in a violation of applicable state laws.

The department may grant an exemption from the prohibitions and restrictions of subsection (4) of this section based on the demonstrations specified in (a), (b) or (c) of this subsection.

(a) Land disposal exemption for treatment residuals. Any person may request an exemption from a land disposal prohibition in subsection (4) of this section for treatment residuals by demonstrating to the department that:

(i) The person has applied the best achievable management method to the original waste; and

(ii) Application of additional management methods to the treatment residuals would prevent the person from utilizing the best achievable management methods for the original dangerous waste; and

(iii) The land disposal of the treatment residuals does not pose a greater risk to the public health and the environment than land disposal of the original dangerous waste would pose.

(b) Economic hardship exemption. Any person may request an exemption from a prohibition in subsection (4) of this section for the land disposal of a dangerous waste by demonstrating to the department that alternative management of the dangerous waste will impose an unreasonable eco-

conomic burden in relation to the threat of harm to public health and the environment. It will be solely within the discretion of the department to approve or deny the requests for exemptions based on economic hardship.

(c) Organic/carbonaceous waste exemption. Any person may request an exemption from the requirements in subsection (4) of this section by demonstrating to the department that:

(i) Alternative management methods for organic/carbonaceous waste are less protective of public health and the environment than stabilization or landfilling; or

(ii)(A) The organic/carbonaceous waste has a heat content less than 3,000 BTU/LB or contains greater than sixty-five percent water or other noncombustible moisture; and

(B) Incineration is the only management method available within a radius of one thousand miles from Washington state's border (i.e., recycling or treatment are not available).

(7) Emergency cleanup provision. The department may, on a case-by-case basis, grant an exception to the land disposal restrictions in subsection (4) of this section for an emergency cleanup where an imminent threat to public health and the environment exists. Any exception will require compliance with applicable state law and will require (consistent with the nature of the emergency and imminent threat) application of the waste management priorities of RCW 70.105.150.

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 Order 94-30, filed 10/19/95, effective 11/19/95)

WAC 173-303-145 Spills and discharges into the environment. (1) Purpose and applicability. This section sets forth the requirements for any person responsible for a spill or discharge of a dangerous waste or hazardous substance into the environment, except when such release is otherwise permitted under state or federal law. For the purposes of complying with this section, a transporter who spills or discharges dangerous waste or hazardous substances during transportation will be considered the responsible person. This section applies when any dangerous waste or hazardous substance is intentionally or accidentally spilled or discharged into the environment (unless otherwise permitted) such that human health or the environment is threatened, regardless of the quantity of dangerous waste or hazardous substance.

(2) Notification. Any person who is responsible for a spill or nonpermitted discharge must immediately notify the individuals and authorities described for the following situations:

(a) For spills or discharges onto the ground or into groundwater or surface water, notify all local authorities in accordance with the local emergency plan. If necessary, check with the local emergency service coordinator and the fire department to determine all notification responsibilities under the local emergency plan. Also, notify the appropriate regional office of the department of ecology;

(b) For spills or discharges which result in emissions to the air, notify all local authorities in accordance with the local emergency plan. If necessary, check with the local emergency service coordinator and the fire department to determine all notification responsibilities under the local emergency plan. Also, in western Washington notify the local air pollution control authority, or in eastern Washington notify the appropriate regional office of the department of ecology.

(3) Mitigation and control. The person responsible for a spill or nonpermitted discharge must take appropriate immediate action to protect human health and the environment (e.g., diking to prevent contamination of state waters, shutting of open valves).

(a) In addition, the person responsible for a spill or discharge must:

(i) Clean up all released dangerous wastes or hazardous substances, or take such actions as may be required or approved by federal, state, or local officials acting within the scope of their official responsibilities. This may include complete or partial removal of released dangerous wastes or hazardous substances as may be justified by the nature of the released dangerous wastes or hazardous substances, the human and environmental circumstances of the incident, and protection required by the Water Pollution Control Act, chapter 90.48 RCW;

(ii) Designate and treat, store or dispose of all soils, waters, or other materials contaminated by the spill or discharge in accordance with this chapter 173-303 WAC. The department may require testing in order to determine the amount or extent of contaminated materials, and the appropriate designation, treatment, storage, or disposal for any materials resulting from clean-up; and

(iii) If the property on which the spill or discharge occurred is not owned or controlled by the person responsible for the incident, restore the area impacted by the spill or discharge, and replenish resources (e.g., fish, plants) in a manner acceptable to the department.

(b)(i) Where immediate removal ~~((or))~~, temporary storage, or treatment of spilled or discharged dangerous wastes or hazardous substances is necessary to protect human health or the environment, the department may direct ~~((that))~~ persons to:

~~((Removal be accomplished))~~ (A) Remove it without a manifest, by transporters who do not have EPA/state identification numbers;

(B) Temporarily store it at sites that are protective of human health and the environment and are secure from access by the public; and/or

(C) Treat it to reduce or control the hazards, under WAC 173-303-170.

(ii) When the department seeks to direct persons who are not responsible for a spill or discharge to carry out actions pursuant to this section, it will obtain their concurrence. It is the intent of the department that persons who provide these services may be deemed "good samaritans" under the provisions of chapter 70.136 RCW.

(4) Nothing in WAC 173-303-145 eliminates any obligations to comply with reporting requirements which may exist in a permit or under other state or federal regulations.

AMENDATORY SECTION (Amending Order 94-30, filed 10/19/95, effective 11/19/95)

WAC 173-303-160 Containers. (1) Waste quantity. Containers and inner liners will not be considered as a part of the waste when measuring or calculating the quantity of a dangerous waste. Only the weight of the residues in nonempty or nonrinsed containers or inner liners will be considered when determining waste quantities.

(2) A container or inner liner is "empty" when:

(a) All wastes in it have been taken out that can be removed using practices commonly employed to remove materials from that type of container or inner liner (e.g., pouring, pumping, aspirating, etc.) and, no more than one inch of waste remains at the bottom of the container or inner liner, or the volume of waste remaining in the container or inner liner is equal to three percent or less of the container's total capacity, or, if the container's total capacity is greater than one hundred ten gallons, the volume of waste remaining in the container or inner liner is no more than 0.3 percent of the container's total capacity. A container which held compressed gas is empty when the pressure inside the container equals or nearly equals atmospheric pressure; and

(b) If the container or inner liner held acutely hazardous waste, as defined in WAC 173-303-040, toxic EHW as defined in WAC 173-303-100 or pesticides bearing the danger or warning label, the container or inner liner has been rinsed at least three times with an appropriate cleaner or solvent. The volume of cleaner or solvent used for each rinsing must be ten percent or more of the container's or inner liner's capacity or of sufficient quantity to thoroughly decontaminate the container. In lieu of rinsing for containers that might be damaged or made unusable by rinsing with liquids (e.g., fiber or cardboard containers without inner liners), an empty container may be vacuum cleaned, struck, with the open end of the container up, three times (e.g., on the ground, with a hammer or hand) to remove or loosen particles from the inner walls and corners, and vacuum cleaned again. Equipment used for the vacuum cleaning of residues from containers or inner liners must be decontaminated before discarding, in accordance with procedures approved by the department. A container or inner liner is also considered "empty" if the container or inner liner has been cleaned by another method that has been shown in the scientific literature, or by tests conducted by the generator, to achieve equivalent removal.

Any rinsate or vacuumed residue which results from the cleaning of containers or inner liners must, whenever possible, be reused in a manner consistent with the original intended purpose of the substance in the container or inner liner. In the case of a farmer, if the rinsate is a pesticide residue then the rinsate must be managed or reused in a manner consistent with the instructions on the pesticide label, provided that when the label instructions specify disposal or burial, such disposal or burial must be on the farmer's own (including rented, leased or tenanted) property. Otherwise, the rinsate must be checked against the designation requirements (WAC 173-303-070 through 173-303-100) and, if designated, managed according to the requirements of this chapter.

(c) In the case of a container, the inner liner, that prevented the container from contact with the commercial

chemical product or manufacturing chemical, has been removed.

(3)(a) Any residues remaining in containers or inner liners that are "empty" as described in subsection (2) of this section will not be subject to the requirements of this chapter, and will not be considered as accumulated wastes for the purposes of calculating waste quantities.

(b) Any dangerous waste in either: A container that is not empty, or an inner liner removed from a container that is not empty (as defined in subsection (2) of this section) is subject to the requirements of this chapter.

(4) A person who cannot meet the provisions in (2)(b) of this section may petition the department to approve alternative container rinsing processes in accordance with WAC 173-303-910(1).

AMENDATORY SECTION (Amending Order 94-30, filed 10/19/95, effective 11/19/95)

WAC 173-303-180 Manifest. Before transporting dangerous waste or offering dangerous waste for transport off the site of generation, the generator must prepare a manifest and must follow all applicable procedures described in this section.

(1) This subsection describes the form and contents of dangerous waste manifests. 40 CFR Part 262 Appendix - Uniform Hazardous Waste Manifest and Instructions (EPA Forms 8700-22 and 8700-22A and Their Instructions) is adopted by reference. The manifest must be EPA Form 8700-22 and, if necessary, EPA Form 8700-22A. The manifest must be prepared in accordance with the instructions for these forms, as described in the uniform manifest Appendix of 40 CFR Part 262, and in addition must contain the following information in the specified shaded items of the uniform manifest:

(a) Item D - The first transporter's telephone number must be provided in this space;

(b) Item F - If a second transporter is used, then the second transporter's telephone number must be provided in this space;

(c) Item H - The designated receiving facility's telephone number must be provided in this space;

(d) Item I, and R if the continuation sheet 8700-22A is used - The dangerous waste number (e.g., F001, D006, WT02((-P102))) must be provided in this space for each corresponding waste entered and described under Item 11, and 28 if the continuation sheet 8700-22A is used. (Note: The waste code does not have to be entered in this block if it already appears in the corresponding U.S. DOT Description block.) As discussed in subsection (5) of this section, dangerous waste numbers WL01 or WL02 may be used in this space for labpacks;

(e) Item O, (on the continuation sheet 8700-22A) - If a third transporter is used, then the third transporter's telephone number must be provided in this space; and

(f) Item Q, (on the continuation sheet 8700-22A) - If a fourth transporter is used, then the fourth transporter's telephone number must be provided in this space.

(2) The manifest must consist of enough copies to provide the generator, transporter(s), and facility owner/operator with a copy, and a copy for return to the generator.

(3) Manifest procedures.

(a) The generator must:

- (i) Sign and date the manifest certification by hand;
- (ii) Obtain the handwritten signature of the initial transporter and date of acceptance on the manifest; and
- (iii) Retain one copy in accordance with WAC 173-303-210, Generator recordkeeping.

(b) The generator must give the remaining manifest copies to the transporter.

(c) If the transporter is unable to deliver the dangerous waste shipment to the designated facility or the alternate facility, the generator must either designate another facility or instruct the transporter to return the waste shipment.

(d) For shipments of dangerous waste within the United States solely by water (bulk shipments only), the generator must send three copies of the manifest dated and signed in accordance with this section to the owner or operator of the designated facility or the last water (bulk shipment) transporter to handle the waste in the United States if exported by water. Copies of the manifest are not required for each transporter.

(e) For rail shipments of dangerous waste within the United States which originate at the site of generation, the generator must send at least three copies of the manifest dated and signed in accordance with this section to:

- (i) The next nonrail transporter, if any; or
- (ii) The designated facility if transported solely by rail;

or

(iii) The last rail transporter to handle the waste in the United States if exported by rail.

(f) For shipments of federally regulated hazardous waste to a designated facility in an authorized state which has not yet obtained authorization to regulate that particular waste as hazardous, the generator must assure that the designated facility agrees to sign and return the manifest to the generator, and that any out-of-state transporter signs and forwards the manifest to the designated facility.

(4) Special requirements for shipments to the Washington EHW facility at Hanford.

(a) All generators planning to ship dangerous waste to the EHW facility at Hanford must notify the facility in writing and by sending a copy of the prepared manifest prior to shipment.

(b) The generator must not ship any dangerous waste without prior approval from the EHW facility. The state operator may exempt classes of waste from the requirements of WAC 173-303-180 (4)(a) and (b) where small quantities or multiple shipments of a previously approved waste are involved, or there exists an emergency and potential threat to public health and safety.

(5) Special instructions for shipment of labpacks. For purposes of completing the uniform dangerous waste manifest, dangerous waste numbers WL01 (for labpacks containing wastes designated as EHW) or WL02 (for labpacks containing wastes designated only as DW) may be used to complete Items I and R in lieu of the dangerous waste numbers that would otherwise be assigned to the contents of the labpack.

AMENDATORY SECTION (Amending Order 94-30, filed 10/19/95, effective 11/19/95)

WAC 173-303-201 Special accumulation standards.

(1) This section applies to persons who generate more than 220 pounds but less than 2200 pounds per calendar month and do not accumulate on-site more than 2200 pounds of dangerous waste. The special provisions of this section do not apply to acutely hazardous wastes or Toxic EHW (WT01) that exceed the QEL that are being generated or accumulated by the generator.

(2) For purposes of accumulating dangerous waste on-site, persons who generate per month and accumulate on-site less than 2200 pounds (1000 kg) per month of dangerous waste are subject to all applicable provisions of WAC 173-303-200 except as follows:

(a) In lieu of the ninety-day accumulation period, dangerous wastes may be accumulated for one hundred eighty days or less. The department may, on a case-by-case basis, grant a maximum ninety-day extension to this one hundred eighty-day period if the generator must transport his waste, or offer his waste for transportation, over a distance of two hundred miles or more for off-site treatment, storage, or disposal, and the dangerous wastes must remain on-site due to unforeseen, temporary and uncontrollable circumstances;

(b) The generator need not comply with WAC 173-303-330 (Personnel training);

(c) In lieu of the contingency plan and emergency procedures required by WAC 173-303-350 and 173-303-360, the generator must comply with the following:

(i) At all times there must be at least one employee either on the premises or on call (i.e., available to respond to an emergency by reaching the facility within a short period of time) with the responsibility for coordinating all emergency response measures specified in (c)(iv) of this subsection. This employee is the emergency coordinator.

(ii) The generator must post the following information next to all emergency communication devices (including telephones, two-way radios, etc.):

(A) The name and telephone number of the emergency coordinator;

(B) Location of fire extinguishers and spill control material, and, if present, fire alarm; and

(C) The telephone number of the fire department, unless the facility has a direct alarm.

(iii) The generator must ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures, relevant to their responsibilities during normal facility operations and emergencies;

(iv) The emergency coordinator or his designee must respond to any emergencies that arise. The applicable responses are as follows:

(A) In the event of a fire, call the fire department or attempt to extinguish it using a fire extinguisher;

(B) In the event of a spill, contain the flow of dangerous waste to the extent possible, and as soon as is practicable, clean up the dangerous waste and any contaminated materials or soil;

(C) In the event of a fire, explosion, or other release which could threaten human health outside the facility or when the generator has knowledge that a spill has reached

waters of the state, the generator must immediately notify the department and either the government official designated as the on-scene coordinator, or the National Response Center (using their twenty-four hour toll free number 800/424-8802). The report must include the following information:

- (I) The name, address, and EPA/state identification number of the generator;
 - (II) Date, time, and type of incident (e.g., spill or fire);
 - (III) Quantity and type of hazardous waste involved in the incident;
 - (IV) Extent of injuries, if any; and
 - (V) Estimated quantity and disposition of recovered materials, if any;
- (d) For waste that is placed in tanks, generators must comply with WAC 173-303-202 in lieu of WAC 173-303-200 (1)(b).

AMENDATORY SECTION (Amending Order 94-30, filed 10/19/95, effective 11/19/95)

WAC 173-303-210 Generator recordkeeping. (1) The generator must keep a copy of each manifest signed by the initial transporter in accordance with WAC 173-303-180(3), manifest procedures, for three years, or until he receives a signed copy from the designated facility which received the waste. The signed facility copy must be retained for at least five years from the date the waste was accepted by the initial transporter.

(2) The generator must keep a copy of each annual report and exception report as required by WAC 173-303-220 for a period of at least five years from the due date of each report. The generator must keep a copy of his most recent notification (Form 2) until he is no longer defined as a generator under this chapter.

(3) Waste designation records.

(a) The generator must keep records of any test results, waste analyses, or other determinations made in accordance with WAC 173-303-170(1) for designating dangerous waste for at least five years from the date that the waste was last transferred for on-site or off-site treatment, storage, or disposal.

(b) At a minimum, test results must include:

- (i) The sample source, sampling date, and sampling procedure used;
- (ii) The laboratory performing the test;
- (iii) The testing date, and testing method used;
- (iv) The analytical result, or the quantitative range of the testing method for analytes not detected.

(4) Any other records required for generators accumulating wastes on-site as described in WAC (~~173-303-170~~ ~~(4)(b) or~~) 173-303-200 or 173-303-201 must be retained for at least five years, including, but not limited to such items as inspection logs.

(5) The periods of retention for any records described in this section will be automatically extended during the course of any unresolved enforcement action requiring those records or upon request by the director.

(6) All generator records, including plans required by this chapter, will be made available and furnished upon request by the director.

AMENDATORY SECTION (Amending Order 94-30, filed 10/19/95, effective 11/19/95)

WAC 173-303-230 Special conditions. (1) Exporting dangerous waste.

Federal export requirements, administered by EPA, are set forth at 40 CFR 262 Subpart E and 40 CFR 261.5, 261.6, 262.41, and 263.20 and specify the procedures applicable to generators and transporters of hazardous waste (as defined in WAC 173-303-040). These requirements are incorporated by reference. Copies of any forms or reports submitted to the administrator of United States EPA as required by 40 CFR 262 Subpart E must also be submitted to the department.

(2) Importing dangerous waste. When importing dangerous waste from a foreign country into Washington state, the United States importer must comply with all the requirements of this chapter for generators, including the requirements of WAC 173-303-180(1), except that:

(a) In place of the generator's name, address and EPA/state identification number, the name and address of the foreign generator and the importer's name, address and EPA/state identification number must be used; and

(b) In place of the generator's signature on the certification statement, the United States importer or his agent must sign and date the certification and obtain the signature of the initial transporter.

(c) A person who imports hazardous waste must obtain the manifest form from the consignment state if the state supplies the manifest and requires its use. If the consignment state does not supply the manifest form, then the manifest form may be obtained from any source.

(3) Empty containers. For the purposes of this chapter, a person who stores, treats, disposes, transports, or offers for transport empty containers of dangerous waste that were for his own use will not be treated as a generator or as a facility owner/operator if the containers are empty as defined in WAC 173-303-160(2), and either:

(a) The rinsate is not a dangerous waste under this chapter; or

(b) He reuses the rinsate in a manner consistent with the original product or, if he is a farmer and the rinsate contains pesticide residues, he reuses or manages the rinsate in a manner consistent with the instructions on the pesticide label, provided that when the label instructions specify disposal or burial, such disposal or burial must be on the farmer's own (including rented, leased or tenanted) property.

(4) Tank cars. A person rinsing out dangerous waste tote tanks, truck or railroad tank cars must handle the rinsate according to this chapter, and according to chapter 90.48 RCW, Water pollution control.

AMENDATORY SECTION (Amending Order 94-30, filed 10/19/95, effective 11/19/95)

WAC 173-303-280 General requirements for dangerous waste management facilities. (1) Applicability. The requirements of WAC 173-303-280 through 173-303-395 apply to all owners and operators of facilities which store, treat, or dispose of dangerous wastes and which must be permitted under the requirements of this chapter 173-303 WAC, unless otherwise specified in this chapter. Whenever a shipment of dangerous waste is initiated from a facility,

the owner or operator of that facility must comply with the requirements for generators, WAC 173-303-170 through 173-303-230.

(2) **Imminent hazard.** Notwithstanding any provisions of this chapter, enforcement actions may be brought in the event that the management practices of a facility present an imminent and substantial hazard to the public health and the environment, regardless of the quantity or concentration of a dangerous waste.

(3) **Identification numbers.** Every facility owner or operator must apply for an EPA/state identification number from the department in accordance with WAC 173-303-060.

(4) The owner or operator must comply with the special land disposal restrictions for certain dangerous wastes in WAC 173-303-140.

(5) Salt dome formations, salt bed formations, underground mines and caves. The placement of any noncontainerized or bulk liquid dangerous waste in any salt dome formation, salt bed formation, underground mine or cave is prohibited.

AMENDATORY SECTION (Amending Order 94-30, filed 10/19/95, effective 11/19/95)

WAC 173-303-282 Siting criteria. (1) **Purpose.** This section establishes siting criteria which serve as an initial screen in the consideration of sites for dangerous waste management facilities. The purpose of the siting criteria is to immediately disqualify proposed dangerous waste facility sites in locations considered unsuitable or inappropriate for the management of dangerous wastes. Under RCW 70.105.200 (1)(d), siting criteria cannot prevent existing dangerous waste management facilities from operating at or below their present level of activity.

A proposed site which is not disqualified under these criteria will be further studied to determine if it qualifies under site specific rules. Compliance with the siting criteria does not imply that a given project at a given location poses an acceptable level of risk, nor does it commit the department to the issuance of a dangerous waste permit. Projects that demonstrate compliance with the siting criteria will be subjected to comprehensive environmental and technical review pursuant to applicable laws and regulations before the department makes a final decision on a dangerous waste permit.

The department may deny a permit or require protective measures such as engineering enhancements or increased setback distances from resources in order to ensure protection of human health and the environment.

(2) Applicability.

(a) Except as otherwise specifically provided, this section applies to:

- (i) Owners/operators of proposed facilities; and
- (ii) Owners or operators of existing land-based facilities at which an expansion of the land based unit is proposed;
- (iii) Owners or operators of existing incinerators at which an expansion is proposed; and
- (iv) Owners or operators proposing a significant expansion of other existing dangerous waste management facilities not subject to (a)(i), (ii) and (iii) of this subsection, unless the owner/operator can demonstrate to the satisfaction of the department that the proposed expansion will provide

a net increase in protection to human health and the environment beyond that which is currently provided at the facility. However, demonstrations under this subsection (iv) must not result in treatment or storage facilities expanding into land-based or incineration facilities if siting criteria cannot be satisfied.

(b) This section does not apply to:

(i) Owners/operators of facilities or portions of facilities who are applying for research, development and demonstration permits, pursuant to section 3005(g) of the Resource Conservation and Recovery Act, codified in 40 CFR Part 270.65 or WAC 173-303-809;

(ii) Owners/operators of facilities operating under an emergency permit pursuant to WAC 173-303-804;

(iii) Persons at facilities conducting on-site cleanup of sites under the Comprehensive Environmental Response Compensation and Liability Act, Sections 3004(u), 3004(v), and 3008(h) of the Resource Conservation and Recovery Act, chapter 70.105 RCW, or chapter 70.105D RCW, provided the cleanup activities are being conducted under a consent decree, agreed order, or enforcement order, or is being conducted by the department or United States Environmental Protection Agency;

(iv) Persons managing solid wastes who become subject to dangerous waste regulations through amendments to this chapter after the effective date of this section. This provision applies only to those activities operated in accordance with local, state, and federal requirements and which were being conducted prior to becoming subject to Dangerous waste regulations, chapter 173-303 WAC or expansions, if it can be demonstrated to the satisfaction of the department that the proposed expansion of such activities will provide a net increase in protection to human health and the environment beyond that which is currently provided at the facility; or

(v) Owners/operators of facilities which recycle hazardous waste and:

(A) Are otherwise exempt from regulation by this chapter under 120;

(B) Have notified the department pursuant to WAC 173-303-060, prior to the effective date of this section;

(C) Are currently operating as a recycling facility as of the effective date of this regulation; and

(D) Seek only to obtain a tank or container storage permit to support recycling operations under this chapter.

Further, significant expansions of such storage facilities meeting the qualifications for this exemption may be considered under subsection (2)(a)(iv) of this section.

(3) **Definitions.** Any terms used in this section that are not defined below have the meanings provided in WAC 173-303-040. For the purposes of this section, the following terms have the described meanings:

(a) "Aquifer of beneficial use" means an aquifer that contains sufficient quality and quantity of water to allow it to be withdrawn for beneficial uses which include, but are not limited to, uses for domestic, stock watering, industrial, commercial, agricultural, irrigation, mining, fish and wildlife maintenance and enhancement, or recreational purposes.

(b) "Displacement" means the relative movement of any two sides of a fault measured in any direction.

(c) "Domestic water use" means any water used for human consumption, other domestic activities or livestock

watering for which the department has issued a permit of water right for surface water diversions pursuant to chapter 90.03 RCW, or for a well pursuant to chapter 90.44 RCW, or for which the department has received a well water report pursuant to RCW 18.104.050, or for any other valid water right claimed in accordance with chapter 90.14 RCW. This does not apply to wells abandoned in compliance with chapter 173-160 WAC.

(d) "Existing facility" means a facility which has qualified for interim status under WAC 173-303-805 or for which the department has issued a final facility permit under WAC 173-303-806.

(e) "Expansion" means the enlargement of the land surface area of an existing facility from that described in an interim status permit application or final facility permit, the addition of a new dangerous waste management process, or an increase in overall design capacity of existing dangerous waste management processes at a facility. However, a process or equipment change within the existing handling code (not to include "other") as defined under WAC 173-303-380 (2)(d) will not be considered a new dangerous waste management process.

(f) "Fault" means a fracture along which rocks or soils on one side have been displaced with respect to those on the other side.

(g) "Holocene" means the most recent epoch of the Quaternary period, extending from the end of the Pleistocene to the present.

(h) "Land-based facility" means a dangerous waste management facility which falls under the definition of land disposal as defined in Section 3004(k) of the Resource Conservation and Recovery Act. These facilities use the land as an integral part of their waste management method and include, but are not limited to, landfills, surface impoundments, waste piles, and land treatment facilities. For the purposes of this section, this would not include waste piles in which the dangerous wastes are stored inside or under a structure that provides protection from precipitation and when runoff, leachate, or other types of waste dispersal are not generated under any conditions.

(i) "Nonland based facility" means a facility which does not use the land as an integral part of its waste management method and is not subject to the requirements of WAC 173-303-806 (4)(a)(xxi). These facilities include, but are not limited to, tanks, containers, and incinerators.

(j) "Perennial surface water body" means a surface water body which is normally continuous with natural flows throughout the year or an annually recurring body of water including lakes, rivers, ponds, streams, reservoirs, inland waters, and saltwaters. This does not include roadside ditches or storm drains. However, this definition does apply to irrigation or domestic water supply channels existing, or planned and approved by a governmental agency, at the time an owner/operator submits a notice of intent.

(k) "Preempted facility" means any facility that includes as a significant part of its activities any of the following operations: (i) Landfill; (ii) incineration; (iii) land treatment; (iv) surface impoundment to be closed as a landfill; or (v) waste pile to be closed as a landfill.

(l) "Prime farmland" means the land which has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber or oilseed crops, and is

also available for these uses. It has the soil quality, growing season, and moisture supply needed to economically produce sustained high yields of crops when treated and managed, including water management, according to acceptable farming methods. In general, prime farmland has an adequate and dependable water supply from precipitation or irrigation, a favorable temperature and growing season, acceptable acidity or alkalinity, acceptable salt and sodium content, and few or no rocks. It is permeable to water and air. Prime farmland is not excessively erodible or saturated with water for a long period of time, and it either does not flood frequently or is protected from flooding. Prime farmland will be determined by those general and specific criteria as defined in the National Soils Handbook, Soil Conservation Service, United States Department of Agriculture, Washington, D.C. and 7 CFR 2.62. Areas of prime farmland are identified in the most recent county soil survey maps prepared by the National Cooperative Soil Survey.

(m) "Proposed facility" means a facility which has not qualified for interim status under WAC 173-303-805 or for which the department has not issued a final facility permit under WAC 173-303-806.

(n) "Public gathering places" means a place such as a public or private health care or child care facility; an educational institution; a church; a government institution not associated with dangerous waste management; or a retail shopping center.

(o) "Residence" means any dwelling including, but not limited to, private homes, rental homes, boarding houses, apartments, motels, or hotels.

(p) "Significant expansion" means an expansion of an existing facility, operating under interim status or a final status permit, that is considered a class three modification as designated by 40 CFR Parts 270.41 and 270.42. Examples include, but are not limited to, a modification or addition of container units resulting in greater than a twenty-five percent increase in the facility's container storage capacity, storage of different wastes in containers that require additional or different management practices from those authorized under interim status or by a final status permit, and a modification or addition of tank units resulting in greater than twenty-five percent increase in the facility's capacity. For the purposes of this section, a single or cumulative increase of greater than twenty-five percent of the process design capacity as described in the facility's original Part A permit application will be considered a significant expansion.

(q) "Slope and soil instability" means areas for which there is credible evidence of, or the potential for, landslides, slumps, avalanches, earth or mud flows, or other unsuitable slope conditions.

(r) "Subsidence" means areas for which there is credible evidence of, or potential for, sinking of the land surface. Areas of subsurface mines, caves, cavernous materials, or where there has been significant removal of fluids may provide credible evidence of subsidence.

(s) "Wetland" means land transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water. For purposes of this classification a wetland must have one or more of the following three attributes: (i) At least periodically, the land supports predominantly hydrophytes; (ii) the substrate is predominantly undrained hydric soil; and

(iii) the substrate is nonsoil and is saturated with water or covered by shallow water at some time during the growing season of each year. The *Joint Federal Methodology for Identifying and Delineating Wetlands* must be used for defining the upland boundary of wetlands.

(4) Implementation.

(a) Submittal of information to demonstrate compliance. Documentation that a proposed facility or expansion site meets the siting criteria must be submitted to the department:

(i) In the notice of intent for those facilities for which a notice of intent is filed after the effective date of this section; or

(ii) Within ninety days of the effective date of this section for proposed facilities for which a notice of intent or an application for a Part B permit has been submitted to the department prior to the effective date of this section.

(b) Consultation by department. The department will consult with the lead local government as defined in WAC 173-303-902 (4)(h) and consider those local land use, building, fire, air quality, and transportation standards to the extent they add to and do not conflict with the requirements of this section. Such consultation and consideration will be made prior to the department's rendering of a tentative decision under subsection (4)(c) of this section.

(c) Response by department. Within sixty days of receipt of a demonstration of compliance, the department will undertake one of the following actions:

(i) Return the demonstration of compliance as incomplete with written comments identifying the need for additional information. The owner or operator may resubmit the demonstration of compliance with complete information; or

(ii) Render a written tentative decision to approve or deny the demonstration of compliance.

(d) Public notice and hearing process. The department in making a tentative decision to approve or deny a demonstration of compliance with this section will take the following actions:

(i) For land-based facilities and incinerators:

(A) The department will publish a notice of its tentative decision in a daily or weekly newspaper of general circulation in the potentially affected area, and will give notice by other reasonable methods to persons potentially affected.

(B) The department will hold a public hearing at a location convenient to the public in the potentially affected area. Notice of the date, time, purpose, and place of the hearing will be provided in the publication of notice.

(C) The department will accept comments on its tentative decision for a minimum of forty-five days.

(D) After evaluating all public comments the department will make a final decision in accordance with chapter 34.05 RCW. The department will either approve or deny the owner/operator's demonstration of compliance.

(ii) For nonland-based facilities, excluding incinerators:

(A) The department will publish a notice of its tentative decision in a daily or weekly newspaper of general circulation in the potentially affected area, and will give notice by other reasonable methods to persons potentially affected.

(B) Upon the written request of any interested person, the department may hold a public hearing to consider public comments on the owner or operator's demonstration of compliance. A person requesting the hearing must state the

issues to be raised and explain why written comments would not suffice. In any case, if ten or more persons request a public hearing on the subject of the department's tentative decision, the department will hold a public hearing for the purpose of receiving comments.

(C) The department will accept comments on its tentative decision for a minimum of forty-five days.

(D) After evaluating all public comments the department will make a final decision in accordance with chapter 34.05 RCW. The department will either approve or deny the owner or operator's demonstration of compliance.

(5) **Appeal of a department decision.** Any person who is adversely affected by a decision of the department under this section may appeal the decision to the pollution control hearings board pursuant to the authority of WAC 173-303-845.

(6) **Criteria for elements of the natural environment.** The following siting criteria establish locations from which facilities are excluded and establish minimum setback distances from identified resources. Unless otherwise stated, setback distances are measured horizontally from the dangerous waste management unit boundary to the identified resource.

These criteria will be used as an initial screening tool in the selection of sites which may be considered by the department for the purpose of managing dangerous waste. A more comprehensive evaluation of locational factors will occur during the department's review of a permit application. The department may deny a permit or impose additional setback distances or other permit requirements if necessary to protect human health and the environment.

(a) Earth. The intent of this subsection is to reduce the potential for the release of dangerous waste into the environment because of structural damage to facilities subject to the hazards identified below. The owner/operator must provide supportive geologic, geotechnical, and soils information.

(i) Seismic risk. All dangerous waste management facilities must be located such that the dangerous waste management unit boundary is located at least five hundred feet from a fault which has had displacement in Holocene times.

(ii) Subsidence. No dangerous waste management facility may be located such that the dangerous waste management unit is within an area of subsidence.

(iii) Slope or soil instability. No dangerous waste management facility may be located such that the dangerous waste management unit is within an area of slope or soil instability, nor in the areas affected by unstable slope or soil conditions.

(b) Air. The intent of this subsection is to reduce the potential for further degradation of air quality in areas currently experiencing air quality impacts.

(i) Incineration facilities may not be located in a Class I (~~Prevention of Significant Deterioration Air Quality Zone designated under~~) area designated in accordance with Section 162 or 164 of the Federal Clean Air Act (under WAC 173-300-030(13)).

(ii) Incineration facilities may not be located in a nonattainment area designated by the department unless compensating emission offset can be achieved.

(iii) Proposed incineration facilities must comply with WAC 173-303-806 (4)(a)(xxii) during the permitting process.

(c) Water. The intent of this subsection is to reduce the potential for contaminating waters of the state in the event of a release of dangerous wastes.

(i) Surface water.

(A) Flood, seiche, and tsunami protection.

(I) No dangerous waste management facility or dangerous waste management unit may be located within the one hundred-year flood plain as indicated in the most current Federal Emergency Management Agency maps.

(II) The owner/operator of a nonland-based facility must identify whether the facility is intended to be located within the five hundred-year flood plain, as indicated in the most current Federal Emergency Management Agency maps. Nonland-based facilities will require special design features so as to prevent flooding of the dangerous waste management unit in the event of a five hundred-year flood.

(III) Land-based facilities may not be located within the five hundred-year flood plain as indicated in the most current Federal Emergency Management Agency maps.

(IV) Dangerous waste management facilities may not be located in areas subject to seiches, or coastal flooding including tsunamis or storm surges as indicated in the most current maps of the National Flood Insurance Program of the Federal Emergency Management Agency.

(B) Perennial surface water bodies.

(I) Nonland-based facilities must be located such that the dangerous waste management unit boundary is at least five hundred feet from a perennial surface water body.

(II) Land-based facilities must be located such that the dangerous waste management unit boundary is at least one-quarter mile from a perennial surface water body.

(C) Surface water supply.

(I) No dangerous waste management facility may be located in a watershed identified in the report submitted to, and approved by, the department of health under the authority of WAC ((248-54-225(3))) 246-290-135(5), Watershed control.

(II) Nonland-based facilities must be located such that the dangerous waste management unit boundary is at least five hundred feet from the nearest surface water intake for domestic water.

(III) Land-based facilities must be located such that the dangerous waste management unit boundary is at least one-quarter mile from the nearest surface water intake for domestic water.

(ii) Ground water. To the extent feasible, proponents of land-based facilities should seek sites with natural site characteristics which are capable of providing protection of ground water resources. Natural features such as low permeability soils and substrata, relatively simple geologic formations, and high rates of evapotranspiration in relation to the seasonal occurrence of precipitation are preferable for the locations of land-based facilities. Proposed land-based facilities must comply with the contingent ground water protection program, WAC 173-303-806 (4)(a)(xxi), during the permitting process.

(A) Depth to ground water.

(I) Nonland-based facilities may not be located in areas where there is less than ten feet vertical separation between the lowest point of the dangerous waste management unit and the seasonal high water level of the uppermost aquifer of beneficial use.

(II) Land-based facilities may not be located in areas where there is less than fifty feet vertical separation between the lowest point of the dangerous waste management unit and the seasonal highwater level of the uppermost aquifer of beneficial use.

(B) Sole source aquifer. No land-based facilities may be located over an area designated as a sole source aquifer under section 1424(e) of the Federal Safe Drinking Water Act (P.L. 93-523).

(C) Ground water management areas. Owners/operators of facilities must identify whether the proposed facility location is within a ground water management area, as proposed or certified pursuant to RCW 90.44.130. In order to maintain consistency with the purpose and substantive requirements of certified ground water management area plans, the department may require additional protective measures or reject inconsistent projects.

(D) Ground water intakes.

(I) Nonland-based facilities must be located such that the dangerous waste management unit boundary is at least five hundred feet from the nearest ground water intake for domestic water.

(II) Land-based facilities must be located such that the dangerous waste management unit boundary is at least one-quarter mile from the nearest ground water intake for domestic water.

(E) Special protection areas. Land-based facilities must not be located within ground water special protection areas designated by ecology under the authority of chapter 90.48 RCW.

(d) Plants and animals: Intent. To reduce the potential for dangerous waste contaminating plant and animal habitat in the event of a release of dangerous wastes.

(i) Nonland-based facilities must be located such that the dangerous waste management unit boundary is at least five hundred feet from the following areas:

(A) Wetlands;

(B) Designated critical habitat, for federally listed threatened or endangered species, as defined by the Endangered Species Act of 1973 (P.L. 93-205);

(C) Habitat designated by the Washington department of wildlife as habitat essential to the maintenance or recovery of any state listed threatened or endangered wildlife species;

(D) Natural areas which are acquired or voluntarily registered or dedicated by the owner under chapter 79.70 RCW, Natural area preserves; and

(E) State or federally designated wildlife refuge, preserve, or bald eagle protection area.

(ii) Land-based facilities must be located such that the dangerous waste management unit boundary is at least one-quarter mile from those areas specified in item (i) above.

(e) Precipitation. The intent of this subsection is to reduce the potential for contaminating waters and soils of the state in the event of a release of dangerous wastes.

Land-based facilities must not be located in areas having a mean annual precipitation level of greater than one hundred inches. The mean annual precipitation map in the U.S. Geological Survey Water-Resources Investigations Report 84-4279 must be used to determine whether a land-based facility is proposed to be located in such an area.

(7) **Criteria for elements of the built environment.** The following siting criteria establish locations from which

facilities are excluded or which require separation from identified land uses. Unless otherwise stated, setback distances are measured horizontally from the dangerous waste management unit boundary to the identified land use.

These criteria must be used as an initial screening tool in the selection of sites which may be considered by the department for the purpose of managing dangerous waste. A more comprehensive evaluation of locational factors will occur during the department's review of a permit application. The department may deny a permit or impose additional setback distances or other permit requirements if necessary to protect human health and the environment.

(a) Adjacent land use.

(i) Nonland-based facilities must be located such that the dangerous waste management unit boundary is at least two hundred feet from the nearest point of the facility property line.

(ii) Land-based facilities must be located such that the dangerous waste management unit boundary is at least five hundred feet from the nearest point of the facility property line.

(b) Special land uses.

(i) Wild and scenic rivers. Dangerous waste management facilities must not be located within the viewshed of users on wild and scenic rivers designated by the state or federal government.

(ii) Nonland-based facilities must be located such that the dangerous waste management unit boundary is at least five hundred feet from the following:

(A) State or federally designated park, recreation area, or national monument;

(B) Wilderness area as defined by the Wilderness Act of 1964 (P.L. 88-577); and

(C) Land identified as prime farmland at the time a notice of intent is submitted to the department.

(iii) Land-based facilities must be located such that the dangerous waste management unit boundary is at least one-quarter mile from those land uses specified in item (ii) above.

(c) Residences and public gathering places.

(i) Nonland-based facilities with the exception of incineration facilities must be located such that the dangerous waste management unit boundary is at least five hundred feet from residences or public gathering places.

(ii) Incineration and land-based facilities must be located such that the dangerous waste management unit boundary is at least one-quarter mile from residences or public gathering places.

(d) Land use compatibility. Owners/operators of nonpreempted facilities must conform with local land use zoning designation requirements, as approved by the department under chapter 70.105 RCW.

(e) Archeological sites and historic sites. No dangerous waste management facility must be located in an archeological site or historic site designated by the state or federal government.

AMENDATORY SECTION (Amending Order 94-30, filed 10/19/95, effective 11/19/95)

WAC 173-303-300 General waste analysis. (1)

Purpose. This section requires the facility owner or operator to confirm his knowledge about a dangerous waste before he stores, treats, or disposes of it. The purpose for the analysis is to insure that a dangerous waste is managed properly.

(2) The owner or operator must obtain a detailed chemical, physical, and/or biological analysis of a dangerous waste, or nondangerous wastes if applicable under WAC 173-303-610 (4)(d), before he stores, treats, or disposes of it. This analysis must contain the information necessary to manage the waste in accordance with the requirements of this chapter 173-303 WAC. The analysis may include or consist of existing published or documented data on the dangerous waste, or on waste generated from similar processes, or data obtained by testing, if necessary.

(3) The owner or operator of an off-site facility must confirm, by analysis if necessary, that each dangerous waste received at the facility matches the identity of the waste specified on the accompanying manifest or shipping paper.

(4) Analysis must be repeated as necessary to ensure that it is accurate and current. At a minimum, analysis must be repeated:

(a) When the owner or operator has been notified, or has reason to believe, that the process or operation generating the dangerous waste, or nondangerous wastes if applicable under WAC 173-303-610 (4)(d), has significantly changed; and

(b) When a dangerous waste received at an off-site facility does not match the identity of the waste specified on the manifest or the shipping paper.

(5) Waste analysis plan. The owner or operator must develop and follow a written waste analysis plan which describes the procedures he will use to comply with the waste analysis requirements of subsections (1), (2), (3), and (4) of this section. He must keep this plan at the facility, and the plan must contain at least:

(a) The parameters for which each dangerous waste, or nondangerous waste if applicable under WAC 173-303-610 (4)(d), will be analyzed, and the rationale for selecting these parameters (i.e., how analysis for these parameters will provide sufficient information on the waste's properties to comply with subsections (1) through (4) of this section);

(b) The methods of obtaining or testing for these parameters;

(c) The methods for obtaining representative samples of wastes for analysis (representative sampling methods are discussed in WAC 173-303-110(2));

(d) The frequency with which analysis of a waste will be reviewed or repeated to ensure that the analysis is accurate and current;

(e) The waste analyses which generators have agreed to supply;

(f) Where applicable, the methods for meeting the additional waste analysis requirements for specific waste management methods as specified in WAC 173-303-400(3) which incorporates by reference the regulations in 40 CFR Part 265 Subparts F through R 265.1034, 265.1063, 268.4(a) and 268.7 for interim status facilities and in WAC 173-303-140 (4)(b), 173-303-395(1), 173-303-630 through 173-303-

670, and 40 CFR 264.1034, 264.1063, 268.4(a) and 268.7 for final status facilities;

(g) For off-site facilities, the waste analysis that dangerous waste generators have agreed to supply;

(h) For surface impoundments exempted from land disposal restrictions under 40 CFR 268.4(a), incorporated by reference in WAC 173-303-140(2), the procedures and schedules for:

(i) The sampling of impoundment contents;

(ii) The analysis of test data; and

(iii) The annual removal of residues that are not delisted under 40 CFR 260.22 or which exhibit a characteristic of hazardous waste and either:

(A) Do not meet applicable treatment standards of 40 CFR Part 268, Subpart D; or

(B) Where no treatment standards have been established;

(I) Such residues are prohibited from land disposal under 40 CFR 268.32 or RCRA section 3004(d); or

(II) Such residues are prohibited from land disposal under 40 CFR 268.33(f).

(6) For off-site facilities, the waste analysis plan required in subsection (5) of this section must also specify the procedures which will be used to inspect and, if necessary, analyze each movement of hazardous waste received at the facility to ensure that it matches the identity of the waste designated on the accompanying manifest or shipping paper. At a minimum, the plan must describe:

(a) The procedures which will be used to determine the identity of each movement of waste managed at the facility;

(b) The sampling method which will be used to obtain a representative sample of the waste to be identified, if the identification method includes sampling; and

(c) The procedures that the owner or operator of an off-site landfill receiving containerized hazardous waste will use to determine whether a hazardous waste generator or treater has added a biodegradable sorbent to the waste in the container.

Comment: WAC 173-303-806 requires that the waste analysis plan be submitted with Part B of the permit application.

AMENDATORY SECTION (Amending Order 94-30, filed 10/19/95, effective 11/19/95)

WAC 173-303-350 Contingency plan and emergency procedures. (1) Purpose. The purpose of this section and WAC 173-303-360 is to lessen the potential impact on the public health and the environment in the event of an emergency circumstance, including a fire, explosion, or unplanned sudden or nonsudden release of dangerous waste or dangerous waste constituents to air, soil, surface water, or ground water by a facility. A contingency plan must be developed to lessen the potential impacts of such emergency circumstances, and the plan must be implemented immediately in such emergency circumstances.

(2) Contingency plan. Each owner or operator must have a contingency plan at his facility for use in emergencies or sudden or nonsudden releases which threaten ~~((the public))~~ human health and the environment. If the owner or operator has already prepared a spill prevention control and countermeasures (SPCC) plan in accordance with Part 112 of Title 40 CFR or Part 1510 of chapter V, or some other emergency or contingency plan, he need only amend that

plan to incorporate dangerous waste management provisions that are sufficient to comply with the requirements of this section and WAC 173-303-360.

(3) The contingency plan must contain the following:

(a) A description of the actions which facility personnel must take to comply with this section and WAC 173-303-360;

(b) A description of the actions which will be taken in the event that a dangerous waste shipment, which is damaged or otherwise presents a hazard to the public health and the environment, arrives at the facility, and is not acceptable to the owner or operator, but cannot be transported, pursuant to the requirements of WAC 173-303-370(5), Manifest system, reasons for not accepting dangerous waste shipments;

(c) A description of the arrangements agreed to by local police departments, fire departments, hospitals, contractors, and state and local emergency response teams to coordinate emergency services as required in WAC 173-303-340(4);

(d) A current list of names, addresses, and phone numbers (office and home) of all persons qualified to act as the emergency coordinator required under WAC 173-303-360(1). Where more than one person is listed, one must be named as primary emergency coordinator, and others must be listed in the order in which they will assume responsibility as alternates. For new facilities only, this list may be provided to the department at the time of facility certification (as required by WAC 173-303-810 (14)(a)(i)), rather than as part of the permit application;

(e) A list of all emergency equipment at the facility (such as fire extinguishing systems, spill control equipment, communications and alarm systems, and decontamination equipment), where this equipment is required. This list must be kept up to date. In addition, the plan must include the location and a physical description of each item on the list, and a brief outline of its capabilities; and

(f) An evacuation plan for facility personnel where there is a possibility that evacuation could be necessary. This plan must describe the signal(s) to be used to begin evacuation, evacuation routes, and alternate evacuation routes.

(4) Copies of contingency plan. A copy of the contingency plan and all revisions to the plan must be:

(a) Maintained at the facility; and

(b) Submitted to all local police departments, fire departments, hospitals, and state and local emergency response teams that may be called upon to provide emergency services.

(5) Amendments. The owner or operator must review and immediately amend the contingency plan, if necessary, whenever:

(a) Applicable regulations or the facility permit are revised;

(b) The plan fails in an emergency;

(c) The facility changes (in its design, construction, operation, maintenance, or other circumstances) in a way that materially increases the potential for fires, explosions, or releases of dangerous waste or dangerous waste constituents, or in a way that changes the response necessary in an emergency;

(d) The list of emergency coordinators changes; or

(e) The list of emergency equipment changes.

AMENDATORY SECTION (Amending Order 94-30, filed 10/19/95, effective 11/19/95)

WAC 173-303-380 Facility recordkeeping. (1) Operating record. The owner or operator of a facility must keep a written operating record at their facility. The following information must be recorded, as it becomes available, and maintained in the operating record until closure of the facility:

(a) A description of and the quantity of each dangerous waste received or managed on-site, and the method(s) and date(s) of its treatment, storage, or disposal at the facility as required by subsection (2) of this section, recordkeeping instructions;

(b) The location of each dangerous waste within the facility and the quantity at each location. For disposal facilities, the location and quantity of each dangerous waste must be recorded on a map or diagram of each cell or disposal area. For all facilities, this information must include cross-references to specific manifest document numbers, if the waste was accompanied by a manifest;

(c) Records and results of waste analyses and trial tests required by WAC 173-303-300, General waste analysis, and by 40 CFR sections 264.1034, 264.1063, 265.1034, 265.1063, 268.4(a), and 268.7;

(d) Summary reports and details of all incidents that require implementing the contingency plan, as specified in WAC 173-303-360 (2)(k);

(e) Records and results of inspections as required by WAC 173-303-320 (2)(d), General inspection (except such information need be kept only for five years);

(f) Monitoring, testing, or analytical data, and corrective action where required by 40 CFR Part 265 Subparts F through R and sections 265.1034(c) through (f), 265.1035, 265.1063(d) through (i), and 265.1064 for interim status facilities, and by WAC 173-303-630 through 173-303-695 and 40 CFR sections 264.1034(c) through (f), 264.1035, 264.1063(d) through (i), and 264.1064 for final status facilities;

(g) All closure and post-closure cost estimates required for the facility;

(h) For off-site facilities, copies of notices to generators informing them that the facility has all appropriate permits, as required by WAC 173-303-290, Required notices;

(i) Records of the quantities (and date of placement) for each shipment of hazardous waste placed in land disposal units under an extension to the effective date of any land disposal restriction granted pursuant to 40 CFR 268.5, a petition pursuant to 40 CFR 268.6, or a certification under 268.8, and the applicable notice required by a generator under 40 CFR 268.7(a);

(j) For an off-site treatment facility, a copy of the notice, and the certification and demonstration, if applicable, required by the generator or the owner or operator under 40 CFR 268.7 or 268.8;

(k) For an on-site treatment facility, the information contained in the notice (except the manifest number), and the certification and demonstration if applicable, required by the generator or the owner or operator under 40 CFR 268.7 or 268.8;

(l) For an off-site land disposal facility, a copy of the notice, and the certification and demonstration if applicable,

required by the generator or the owner or operator of a treatment facility under 40 CFR 268.7 and 268.8, whichever is applicable;

(m) For an on-site land disposal facility, the information contained in the notice required by the generator or owner or operator of a treatment facility under 40 CFR 268.7, except for the manifest number, and the certification and demonstration if applicable, required under 40 CFR 268.8, whichever is applicable;

(n) For an off-site storage facility, a copy of the notice, and the certification and demonstration if applicable, required by the generator or the owner or operator under 40 CFR 268.7 or 268.8; and

(o) For an on-site storage facility, the information contained in the notice (except the manifest number), and the certification and demonstration if applicable, required by the generator or the owner or operator under 40 CFR 268.7 or 268.8.

(2) Recordkeeping instructions. This paragraph provides instructions for recording the portions of the operating record which are related to describing the types, quantities, and management of dangerous wastes at the facility. This information must be recorded, as it becomes available, and maintained in the operating record until closure of the facility, as follows:

(a) Each dangerous waste received (or managed), treated, stored, or disposed of at the facility must be described by its common name and by its dangerous waste number(s) from WAC 173-303-080 through 173-303-104. Each listed, characteristic, and criteria waste has its own four-digit dangerous waste number. Where a dangerous waste contains more than one process waste or waste constituent the waste description must include all applicable dangerous waste numbers. If the dangerous waste number is not listed (then), the waste description must include the process which generated the waste;

(b) The waste description must include the waste's physical form (i.e., liquid, solid, sludge, or contained gas);

(c) The estimated or manifest-reported weight, or volume and density, where applicable, of the dangerous waste must be recorded, using one of the units of measure specified in Table 1, below; and

TABLE 1

Unit of Measure	Symbol	Density
Pounds	P	
Short tons (2000 lbs)	T	
Gallons (U.S.)	G	P/G
Cubic yards	Y	T/Y
Kilograms	K	
Tonnes (1000 kg)	M	
Liters	L	K/L
Cubic meters	C	M/C

Unit of measure	Code ¹
Gallons	G
Gallons per Hour	E
Gallons per Day	U
Liters	L
Liters per Hour	H
Liters per Day	V

PERMANENT

Short Tons (2000 lbs)	T
Short Tons per Hour	D
Metric Tons per Hour	W
Short Tons per Day	N
Metric Tons per Day	S
Pounds	P
Pounds per Hour	J
Kilograms	K
Kilograms per Hour	R
Cubic Yards	Y
Cubic Meters	C
Acres	B
Acre-feet	A
Hectares	Q
Hectare-meter	F
Btu's per Hour	I

Footnote: ¹Single-digit symbols are used here for data processing purposes.

(d) ~~((And,))~~ The ~~((date(s) and))~~ method(s) (by handling code(s)) of management for each dangerous waste received or managed ~~((treated, recycled, stored, or disposed of))~~, and the date(s) of treatment, recycling, storage, or disposal must be recorded, using the handling code(s) specified in Table 2, below.

TABLE 2 - Handling Codes for Treatment, Storage, and Disposal Methods

Enter the handling code(s) listed below that most closely represents the technique(s) used at the facility to treat, store, or dispose of each quantity of dangerous waste received.

1. Storage

- S01 Container (barrel, drum, etc.)
- S02 Tank
- S03 Waste pile
- S04 Surface impoundment
- S05 Drip Pad
- S06 Containment Building (Storage)
- S99 Other storage (specify)

2. Treatment

(a) Thermal Treatment

- T06 Liquid injection incinerator
- T07 Rotary kiln incinerator
- T08 Fluidized bed incinerator
- T09 Multiple hearth incinerator
- T10 Infrared furnace incinerator
- T11 Molten salt destructor
- T12 Pyrolysis
- T13 Wet air oxidation
- T14 Calcination
- T15 Microwave discharge
- ~~(T16 Cement kiln~~
- ~~T17 Lime kiln))~~
- T18 Other (specify)

(b) Chemical treatment

- T19 Absorption mound
- T20 Absorption field
- T21 Chemical fixation
- T22 Chemical oxidation
- T23 Chemical precipitation
- T24 Chemical reduction
- T25 Chlorination
- T26 Chlorinolysis
- T27 Cyanide destruction
- T28 Degradation

- T29 Detoxification
- T30 Ion exchange
- T31 Neutralization
- T32 Ozonation
- T33 Photolysis
- T34 Other (specify)
 - (c) Physical treatment
 - (i) Separation of components
 - T35 Centrifugation
 - T36 Clarification
 - T37 Coagulation
 - T38 Decanting
 - T39 Encapsulation
 - T40 Filtration
 - T41 Flocculation
 - T42 Flotation
 - T43 Foaming
 - T44 Sedimentation
 - T45 Thickening
 - T46 Ultrafiltration
 - T47 Other (specify)
 - (ii) Removal of specific components
 - T48 Absorption-molecular sieve
 - T49 Activated carbon
 - T50 Blending
 - T51 Catalysis
 - T52 Crystallization
 - T53 Dialysis
 - T54 Distillation
 - T55 Electrodialysis
 - T56 Electrolysis
 - T57 Evaporation
 - T58 High gradient magnetic separation
 - T59 Leaching
 - T60 Liquid ion exchange
 - T61 Liquid-liquid extraction
 - T62 Reverse osmosis
 - T63 Solvent recovery
 - T64 Stripping
 - T65 Sand filter
 - T66 Other (specify)
 - (d) Biological treatment
 - T67 Activated sludge
 - T68 Aerobic lagoon
 - T69 Aerobic tank
 - T70 Anaerobic ~~((lagoon or))~~ tank
 - T71 Composting
 - T72 Septic tank
 - T73 Spray irrigation
 - T74 Thickening filter
 - T75 Trickling filter
 - T76 Waste stabilization pond
 - T77 Other (specify)
 - T78-79 (Reserved)
 - (e) Boilers and industrial furnaces
 - T80 Boiler
 - T81 Cement kiln
 - T82 Lime kiln
 - T83 Aggregate kiln
 - T84 Phosphate kiln
 - T85 Coke oven
 - T86 Blast furnace

PERMANENT

T87 Smelting, melting, or refining furnace
T88 Titanium dioxide chloride process oxidation

reactor

T89 Methane reforming furnace
T90 Pulping liquor recovery furnace
T91 Combustion device used in the recovery of sulfur

values from spent sulfuric acid

T92 Halogen acid furnaces
T93 Other industrial furnaces listed in WAC 173-303-

040 (specify)

(f) Other treatment

T94 Containment building (treatment)

3. Disposal

D((80)) 79 Underground injection

D((81)) 80 Landfill

D((82)) 81 Land treatment

D((83)) 82 Ocean disposal

D((84)) 83 Surface impoundment
 (to be closed as a landfill)

D((85)) 99 Other disposal (specify)

4. Miscellaneous (Subpart X)

X01 Open burning/open detonation

X02 Mechanical processing

X03 Thermal unit

X04 Geologic repository

X99 Other Subpart X (specify)

(3) Availability, retention and disposition of records.

(a) All facility records, including plans, required by this chapter must be furnished upon request, and made available at all reasonable times for inspection, by any officer, employee, or representative of the department who is designated by the director.

(b) The retention period for all facility records required under this chapter is extended automatically during the course of any unresolved enforcement action regarding the facility or as requested by the director.

(c) A copy of records of waste disposal locations and quantities under this section must be submitted to the United States EPA regional administrator, the department, and the local land use and planning authority upon closure of the facility.

AMENDATORY SECTION (Amending Order 94-30, filed 10/19/95, effective 11/19/95)

WAC 173-303-395 Other general requirements. (1) Precautions for ignitable, reactive, or incompatible wastes.

(a) The owner or operator must take precautions to prevent accidental ignition or reaction of ignitable or reactive waste. This waste must be separated and protected from sources of ignition or reaction including, but not limited to, open flames, smoking, cutting and welding, hot surfaces, frictional heat, sparks (static, electrical, or mechanical), spontaneous ignition (e.g., from heat-producing chemical reactions), and radiant heat. While ignitable or reactive waste is being handled, the owner or operator must confine smoking and open flame to specially designated locations. "No smoking" signs must be conspicuously placed wherever there is a hazard from ignitable or reactive waste.

(b) Where specifically required by other sections of this chapter 173-303 WAC, the treatment, storage, or disposal of

ignitable or reactive waste, and the mixture or commingling of incompatible wastes, or incompatible wastes and materials, must be conducted so that it does not:

(i) Generate extreme heat or pressure, fire or explosion, or violent reaction;

(ii) Produce uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantities to threaten human health or the environment;

(iii) Produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions;

(iv) Damage the structural integrity of the facility or device containing the waste; or

(v) Through other like means, threaten human health or the environment.

(c) When required to comply with (a) and (b) of this subsection, the owner or operator must document that compliance in the operating record required under WAC 173-303-380(1). This documentation may be based on references to published scientific or engineering literature, data from trial tests, waste analyses, or the results of the treatment of similar wastes by similar treatment processes and under similar operating conditions.

(d) At least yearly, the owner or operator must inspect those areas of his facility where ignitable or reactive wastes are stored. This inspection must be performed in the presence of a professional person who is familiar with the Uniform Fire Code, or in the presence of the local, state, or federal fire marshal. The owner or operator must enter the following information in his inspection log or operating record as a result of this inspection:

(i) The date and time of the inspection;

(ii) The name of the professional inspector or fire marshal;

(iii) A notation of the observations made; and

(iv) Any remedial actions which were taken as a result of the inspection.

(2) Compliance with other environmental protection laws and regulations. In receiving, storing, handling, treating, processing, or disposing of dangerous wastes, the owner/operator must design, maintain and operate his dangerous waste facility in compliance with all applicable federal, state and local laws and regulations (e.g., control of stormwater or sanitary water discharge, control of volatile air emissions, etc.).

(3) ~~(Asbestos dangerous waste disposal requirements. All asbestos-containing waste material must be disposed of at waste disposal sites which are operated in accordance with 40 CFR Part 61 Subpart M. Such sites will not need to comply with any other standards of chapter 173-303 WAC, if they comply with 40 CFR Part 61.)~~ Reserve.

(4) Loading and unloading areas. TSD facilities which receive or ship manifested shipments of liquid dangerous waste for treatment, storage or disposal must provide for and use an area (or areas) for loading and unloading waste shipments. The loading and unloading area(s) must be designed, constructed, operated and maintained to:

(a) Contain spills and leaks that might occur during loading or unloading;

(b) Prevent release of dangerous waste or dangerous waste constituents to ground or surface waters;

(c) Contain wash waters (if any) resulting from the cleaning of contaminated transport vehicles and load/unload equipment; and

(d) Allow for removal, as soon as possible, of collected wastes resulting from spills, leaks and equipment cleaning (if any) in a manner which assures compliance with (b) of this subsection.

(5) Storage time limit for impoundments and piles.

(a) Except as provided in (b) or (c) of this subsection, dangerous waste may not be stored in a surface impoundment or waste pile for more than five years after the waste was first placed in the impoundment or pile. For the purposes of this requirement, the five-year limit, for waste regulated under this chapter and being stored in impoundments or piles on the effective date of this requirement, will begin on August 1, 1984. The age of stored wastes must be determined on a monthly basis.

The owner/operator of a surface impoundment or waste pile used for storing dangerous waste must develop a written plan, to be kept at the facility, for complying with the five-year storage limit. The plan must describe the operating conditions, waste identification procedures (for keeping track of the age of the wastes), and a waste removal schedule, and at a minimum the plan must include the following elements:

(i) Methods for identifying the age of dangerous wastes placed in the impoundment or pile;

(ii) Where practical, procedures for segregating wastes of different ages. If the wastes cannot be practically segregated, then the age of all wastes placed in the impoundment or pile must be deemed the same age as the oldest waste in the impoundment or pile;

(iii) A schedule for removing dangerous waste from the impoundment or pile, or for disposing of them in a timely manner to assure compliance with the five-year limit;

(iv) A description of the actions to be taken according to the schedule required by (a)(iii) of this subsection;

(v) Procedures for noting in the operating record required by WAC 173-303-380(1) that the requirements of this subsection have been satisfied; and

(vi) Such other requirements as the department specifies.

(b) If the owner/operator of a surface impoundment or waste pile can develop a written plan and schedule for developing and implementing a recycling or treatment process for the wastes stored in his impoundment or pile, then the department may grant an extension to the storage time limit required in (a) of this subsection. Such extension will be granted only once, will only apply to those dangerous wastes covered by the recycling or treatment plan and which are less than five years old on the date that the plan is approved by the department, and will not exceed five years: *Provided*, That on a case-by-case basis the department may grant an extension of longer than five years, but in no case will any extension be granted for longer than ten years, if the owner/operator of the impoundment or pile can demonstrate to the department's satisfaction that an extension of more than five years will not pose a threat to public health or the environment, and is necessary because: Other treatment or recycling options of shorter durations are not available; the treatment or recycling plan developed by the owner/operator cannot be implemented within five years due to technological circumstances; or, such other reasons as are determined acceptable by the department. Until the depart-

ment grants the extension by approving the recycling or treatment plan, the owner/operator must continue to comply with the requirements of (a) of this subsection. The recycling or treatment plan and schedule, at a minimum, must:

(i) Specify the wastes which will be recycled or treated in accordance with the plan;

(ii) Describe in detail the recycling or treatment which the owner/operator intends to perform. If the recycling or treatment will involve physical changes to the owner's/operator's facility, the plan must include descriptions of all necessary equipment, processes to be used, site plans, and maps to show any new structures, pipes, channels, waste handling areas, roads, etc.;

(iii) Discuss any permit actions (including issuance or modification) necessary under this chapter, and any other permits which will be required under other federal, state or local laws;

(iv) Establish a schedule for complying with the plan. The schedule must, at a minimum, cover:

(A) The rate at which wastes will be recycled or treated in order to comply with the extension granted by the department;

(B) Construction and equipment installation times as appropriate;

(C) Timing for complying with all required permit actions; and

(D) Such other elements as the department might require;

(v) Describe how the owner/operator will continue to comply with the requirements of (a) of this subsection for all wastes not specified in (b)(i) of this subsection;

(vi) Identify any future occurrences or situations which the owner/operator could reasonably expect to occur and which might cause him to fail to comply with his recycling or treatment plan. The owner/operator must also describe what actions he would take in the event that such occurrences or situations happen;

(vii) Be approved by the department. The plan may not be implemented until it is approved by the department including, if necessary, issuance or modification of a facility permit as required by this chapter. Any extension granted by the department will begin on the date that the plan is approved, or the date five years after the effective date of this subsection, whichever is later; and

(viii) Include any other elements that the department might require.

(c) The owner/operator of a surface impoundment or waste pile is exempted from the requirements of (a) and (b) of this subsection if:

(i) The owner/operator of a surface impoundment or waste pile can demonstrate to the department's satisfaction that the impoundment or pile is not used primarily for storage, but that it is primarily used to actively and effectively neutralize, detoxify, or other wise treat dangerous waste; or

(ii) The owner/operator of a surface impoundment or waste pile can demonstrate to the department's satisfaction that dangerous waste is removed on a frequent basis (at least four times a year) for treatment, recycling or disposal, provided that the amount of waste removed during any five-year period must equal or exceed the amount of waste placed in the impoundment or pile during that five-year period.

However, this exemption does not apply to waste removal which is being performed pursuant to a recycling or treatment plan developed and approved under (b) of this subsection; or

(iii) The owner/operator of a surface impoundment or waste pile has demonstrated, through his permit, closure plan or other instrument, that the impoundment or pile is being operated as a land disposal unit and that it will be closed as a landfill.

(6) Labeling for containers and tanks. The owner or operator must label containers and tanks in a manner which adequately identifies the major risk(s) associated with the contents for employees, emergency response personnel and the public (Note—If there is already a system in use that performs this function in accordance with local, state or federal regulations, then such system will be adequate). The owner or operator must ensure that labels are not obscured, removed, or otherwise unreadable in the course of inspection required under WAC 173-303-320. For tanks, the label or sign must be legible at a distance of at least fifty feet. For containers, the owner or operator must affix labels upon transfer of dangerous waste from one container to another. The owner or operator must destroy or otherwise remove labels from the emptied container, unless the container will continue to be used for storing dangerous waste at the facility.

AMENDATORY SECTION (Amending Order 94-30, filed 10/19/95, effective 11/19/95)

WAC 173-303-400 Interim status facility standards.

(1) Purpose. The purpose of WAC 173-303-400 is to establish standards which define the acceptable management of dangerous waste during the period of interim status and until certification of final closure or, if the facility is subject to post-closure requirements, until post-closure responsibilities are fulfilled.

(2) Applicability.

(a) The interim status standards apply to owners and operators of facilities which treat, store, transfer, and/or dispose of dangerous waste. For purposes of this section, interim status applies to all facilities which comply fully with the requirements for interim status under Section 3005(e) of the Federal Resource Conservation and Recovery Act or WAC 173-303-805. The interim status standards also apply to those owners and operators of facilities in existence on November 19, 1980, for RCRA wastes and those facilities in existence on August 9, 1982, for state only wastes who have failed to provide the required notification pursuant to WAC 173-303-060 or failed to file Part A of the permit application pursuant to WAC 173-303-805 (4) and (5). Interim status will end after final administrative disposition of the Part B permit application is completed, or may be terminated for the causes described in WAC 173-303-805(8).

(b) Interim status facilities must meet the interim status standards by November 19, 1980, except that:

(i) Interim status facilities which handle only state designated wastes (i.e., not designated by 40 CFR Part 261) must meet the interim status standards by August 9, 1982; and

(ii) Interim status facilities must comply with the additional state interim status requirements specified in

subsection (3)(c)(ii), (iii) and (v), of this section, by August 9, 1982.

(c) The requirements of the interim status standards do not apply to:

(i) Persons disposing of dangerous waste subject to a permit issued under the Marine Protection, Research and Sanctuaries Act;

(ii) Reserved;

(iii) The owner or operator of a POTW who treats, stores, or disposes of dangerous wastes, provided that he has a permit by rule pursuant to the requirements of WAC 173-303-802(4);

(iv) The owner or operator of a totally enclosed treatment facility or elementary neutralization or wastewater treatment units as defined in WAC 173-303-040, provided that he has a permit by rule pursuant to the requirements of WAC 173-303-802(5);

(v) Generators accumulating waste for less than ninety days except to the extent WAC 173-303-200 provides otherwise;

(vi) The addition, by a generator, of absorbent material to waste in a container, or of waste to absorbent material in a container, provided that these actions occur at the time the waste is first placed in containers or, in the case of repackaging of previously containerized waste into new containers, at the time the waste is first placed into the new containers and the generator complies with WAC 173-303-200 (1)(b) and 173-303-395 (1)(a) and (b);

(vii) The compaction or sorting, by a generator, of miscellaneous waste forms such as cans, rags, and bottles in a container, so long as the activity is solely for the purpose of reducing waste void space, and so long as these activities are conducted in a manner that protects human health and prevents any release to the environment and the generator complies with WAC 173-303-200 (1)(b) and 173-303-395 (1)(a) and (b);

(viii) Generators treating dangerous waste on-site in tanks ~~((or))~~, containers, or containment buildings that are used for accumulation of such wastes provided the generator complies with the WAC 173-303-170(3);

(ix) The owner or operator of an elementary neutralization unit or a wastewater treatment unit as defined in WAC 173-303-040, provided that if the owner or operator is diluting hazardous ignitable (D001) wastes (other than the D001 High TOC Subcategory defined in 40 CFR section 268.40, Table Treatment Standards for Hazardous Wastes), or reactive (D003) waste, to remove the characteristic before land disposal, the owner/operator must comply with the requirements set out in WAC 173-303-395 (1)(a); and

(x) Any person, other than an owner or operator who is already subject to the final facility standards, who is carrying out an immediate or emergency response to contain or treat a discharge or potential discharge of a dangerous waste or hazardous substance.

~~((Reserve-))~~

(xi) Universal waste handlers and universal waste transporters (as defined in WAC 173-303-040) handling the wastes listed below. These handlers are subject to regulation under WAC 173-303-573, when handling the below listed universal wastes.

(A) Batteries as described in WAC 173-303-573(2); and

(B) Thermostats as described in WAC 173-303-573(3).

(3) Standards.

(a) Interim status standards are the standards set forth by the Environmental Protection Agency in 40 CFR Part 265 Section 265.19 of Subpart B, Subparts F through R, Subpart W, and Subparts AA, BB, and DD which are incorporated by reference into this regulation (including, by reference, any EPA requirements specified in those subparts which are not otherwise explicitly described in this chapter), and:

(i) The land disposal restrictions of WAC 173-303-140; the facility requirements of WAC 173-303-280 through 173-303-440 except WAC 173-303-335; and the corrective action requirements of WAC 173-303-646~~((2))~~;

(ii) WAC 173-303-630(3), for containers. In addition, for container storage, the department may require that the storage area include secondary containment in accordance with WAC 173-303-630(7), if the department determines that there is a potential threat to public health or the environment due to the nature of the wastes being stored, or due to a history of spills or releases from stored containers. Any new container storage areas constructed or installed after September 30, 1986, must comply with the provisions of WAC 173-303-630(7).

(iii) WAC 173-303-640 (5)(d), for tanks; and

(iv) WAC 173-303-805.

(b) For purposes of applying the interim status standards of 40 CFR Part 265 Subparts F through R, Subpart W, and Subparts AA, BB, and DD to the state of Washington facilities, the federal terms have (and in the case of the wording used in the financial instruments referenced in Subpart H of Part 265, must be replaced with) the following state of Washington meanings:

(i) "Regional administrator" means the "department" except for 40 CFR Parts 270.2; 270.3; 270.5; 270.10 (e)(1),(2) and (4); 270.10 (f) and (g); 270.11 (a)(3); 270.14 (b)(20); 270.32 (b)(2); and 270.51;

(ii) "Hazardous" means "dangerous" except for Subparts AA, BB, and DD. These subparts apply only to hazardous waste as defined in WAC 173-303-040;

(iii) "Compliance procedure" has the meaning set forth in WAC 173-303-040, Definitions;

(iv) "EPA hazardous waste numbers" mean "dangerous waste numbers".

(c) In addition to the changes described in (b) of this subsection, the following modifications are made to interim status standards of 40 CFR Part 265 Subparts F through R, Subpart W, and Subparts AA, BB, and DD:

(i) The words "the effective date of these regulations" means:

(A) November 19, 1980, for facilities which manage any wastes designated by 40 CFR Part 261;

(B) For wastes which become designated by 40 CFR Part 261 subsequent to November 19, 1980, the effective date is the date on which the wastes become regulated;

(C) March 12, 1982, for facilities which manage wastes designated only by WAC 173-303-080 through 173-303-100 and not designated by 40 CFR Part 261;

(D) For wastes which become designated only by WAC 173-303-080 through 173-303-100 and not designated by 40 CFR Part 261 subsequent to March 12, 1982, the effective date is the date on which the wastes become regulated.

(ii) "Subpart N - landfills" has an additional section added which reads: "An owner/operator must not landfill an organic carcinogen or an EHW, as defined by WAC 173-303-080 through 173-303-100, except at the EHW facility at Hanford";

(iii) "Subpart R - underground injection" has an additional section which reads: "Owners and operators of wells are prohibited from disposing of EHW or an organic carcinogen designated under WAC 173-303-080 through 173-303-100";

(iv) "Subpart M - land treatment," section 265.273(b) is modified to replace the words "Part 261, Subpart D of this chapter" with "WAC 173-303-080";

(v) "Subpart F - ground water monitoring," section 265.91(c) includes the requirement that: "Groundwater monitoring wells must be designed, constructed, and operated so as to prevent groundwater contamination. Chapter 173-160 WAC may be used as guidance in the installation of wells";

(vi) "Subpart H - financial requirements" has an additional section which reads: "Any owner or operator who can provide financial assurances and instruments which satisfy the requirements of WAC 173-303-620 will be deemed to be in compliance with 40 CFR Part 265 Subpart H". In 40 CFR Parts 265.143(g) and 265.145(g) the following sentence does not apply to the state: "If the facilities covered by the mechanisms are in more than one Region, identical evidence of financial assurance must be submitted to, and maintained with the Regional Administrators of all such Regions." Instead, the following sentence applies: "If the facilities covered by the mechanism are in more than one state, identical evidence of financial assurance must be submitted to and maintained with the state agency regulating hazardous waste or with the appropriate regional administrator if the facility is located in an unauthorized state." In addition, the following sections and any cross-reference to these sections are not incorporated by reference: 40 CFR Parts 265.149 and 265.150; and

(vii) "Subpart J - tank systems" section 265.193(a) is modified so that the dates by which secondary containment (which meets the requirements of that section) must be provided are the same as the dates in WAC 173-303-640 (4)(a).

(viii) "Subpart J - tank systems" section 265.191(a) is modified so that the date by which an assessment of a tank system's integrity must be completed is January 12, 1990.

(ix) "Subpart G - closure and post-closure" section 265.115 is modified to read "Within 60 days of completion of closure of each dangerous waste management unit (including tank systems and container storage areas) and within 60 days of completion of final closure..." In addition, the clean-up levels for removal or decontamination set forth at WAC 173-303-610 (2)(b) apply.

(x) "Subpart B - general facility standards. References to "EPA" (etc.), means the "department" except at 40 CFR 265.11. Additionally, references to "administrator" (etc.), means the "director" except at 40 CFR 265.12(a)."

(xi) The following sections and any cross-reference to these sections are not incorporated or adopted by reference:

(A) 40 CFR Parts 260.1 (b)(4)-(6) and 260.20-22.

(B) 40 CFR Parts 264.1 (d) and (f); 265.1 (c)(4); 264.149-150 and 265.149-150; 264.301(k); and 265.430.

(C) 40 CFR Parts 268.5 and 6; 268 Subpart B; and 268.42(b)(~~and 268.44~~).

(D) 40 CFR Parts 270.1 (c)(1)(i); 270.60(b); and 270.64.

(E) 40 CFR Parts 124.1 (b)-(e); 124.4; 124.5(e); 124.9; 124.10 (a)(1)(iv); 124.12(e); 124.14(d); 124.15 (b)(2); 124.16; 124.17(b); 124.18; 124.19; and 124.21.

(F) 40 CFR Parts 2.106(b); 2.202(b); 2.205(i); 2.209 (b)-(c); 2.212-213; and 2.301-311.

(4) The requirements of this section apply to owners or operators of all facilities that treat, store or dispose of hazardous waste referred to in 40 CFR Part 268, and the 40 CFR Part 268 standards are considered material conditions or requirements of the interim status standards incorporated by reference in subsection (3) of this section.

AMENDATORY SECTION (Amending Order 94-30, filed 10/19/95, effective 11/19/95)

WAC 173-303-505 Special requirements for recyclable materials used in a manner constituting disposal. (1) Applicability.

(a) This section applies to recyclable materials that are applied to or placed on the land:

(i) Without mixing with any other substance(s); or

(ii) After mixing or combining with any other substance(s). These materials will be referred to as "materials used in a manner that constitutes disposal."

(b)(i) Products produced for the general public's use that are used in a manner that constitutes disposal and that contain recyclable materials are not presently subject to regulation if the recyclable materials have undergone a chemical reaction in the course of producing the product so as to become inseparable by physical means and if such products meet the applicable treatment standards in 40 CFR Part 268 Subpart D (or applicable prohibition levels in 268.32 or RCRA section 3004(d), where no treatment standards have been established) for each recyclable material (i.e., hazardous waste) that they contain. Registered commercial fertilizers that are produced for the general public's use that contain recyclable materials also are not subject to regulation provided they meet these same treatment standards or prohibition levels for each recyclable material that they contain. However, zinc-containing fertilizers using hazardous waste K061 that are produced for the general public's use are not presently subject to regulation.

(ii) Anti-skid/deicing uses of slags, which are generated from high temperature metals recovery (HTMR) processing of dangerous waste K061, K062, and F006, in a manner constituting disposal are not covered by the exemption in (b)(i) of this subsection and remain subject to regulation.

(2) Recyclable materials used in a manner that constitutes disposal are dangerous wastes and are subject to the following requirements:

(a) For generators, WAC 173-303-170 through 173-303-230;

(b) For transporters, WAC 173-303-240 through 173-303-270; and

(c) For facilities that store or use dangerous wastes in a manner constituting disposal, the applicable requirements of 40 CFR Part 268 (incorporated by reference in WAC 173-303-140 (2)(a) and 173-303-280 through 173-303-840 (except that users of such products are not subject to these

standards if the products meet the requirements of subsection (1)(b) of this section).

(d) The use of waste oil, used oil, or other material that is contaminated with dioxin or any other dangerous waste for dust suppression or road treatment is prohibited.

AMENDATORY SECTION (Amending Order 92-33, filed 12/8/93, effective 1/8/94)

WAC 173-303-520 Special requirements for reclaiming spent lead acid battery wastes. This section applies to persons who reclaim (including regeneration) spent lead-acid batteries that are recyclable materials ("spent batteries").

(1) Persons who generate, transport, or collect spent batteries, who regenerate spent batteries, or who store spent batteries but do not reclaim them (other than spent batteries that are to be regenerated) are subject only to the requirements of WAC (~~(173-303-050, 173-303-145)~~) 173-303-016 through 173-303-161, and 173-303-960 if such spent batteries are going to a battery reclaimer.

(2) Owners and operators of battery reclaiming facilities that store spent lead acid batteries prior to reclaiming (other than spent batteries that are to be regenerated) them are subject to the following requirements:

(a) For all reclaimers, the applicable storage provisions of:

(i) WAC 173-303-280 (2) and (3);

(ii) WAC 173-303-282;

(iii) WAC 173-303-283;

(iv) WAC 173-303-290;

(v) WAC 173-303-310 through 173-303-360;

(vi) WAC 173-303-380;

(vii) WAC 173-303-390 (2) and (3);

(viii) WAC 173-303-395; and

(ix) WAC 173-303-800 through 173-303-840.

(b) For reclaimers with interim status permits, the applicable storage provisions of WAC 173-303-400 including Subparts F through L of 40 CFR Part 265;

(c) For reclaimers with final facility permits, the applicable storage provisions of:

(i) WAC 173-303-600 through 173-303-650; and

(ii) WAC 173-303-660.

NEW SECTION

WAC 173-303-522 Special requirements for recycling spent antifreeze. (1) Applicability. This section applies to the recycling of spent antifreeze. Antifreeze means ethylene glycol based coolant used as a heat exchange medium in motor vehicle radiators, motorized equipment, or in other industrial processes. For the purposes of this section recycling means reclamation and reuse, but not burning for energy recovery.

(2) Standards. Persons who generate, transport, or store spent antifreeze but do not reclaim or recycle it are subject to the requirements of WAC 173-303-050, 173-303-145, and 173-303-960 if their spent antifreeze is going to a recycler. Any discharge of spent antifreeze to the environment constitutes disposal and is subject to full regulation under this chapter.

(a) Generator requirements:

(i) Persons who reclaim or recycle their spent antifreeze on-site, or send their antifreeze off-site to be reclaimed or

recycled, must keep records for a period of five years from the date of reclamation/recycling.

Proof of reclamation/recycling is either a log for on-site reclamation/recycling or an invoice or bill of lading for off-site reclamation/recycling.

(ii) Containers and tanks used to accumulate spent antifreeze must be labeled "spent antifreeze."

(iii) Spent antifreeze that is to be reclaimed can be accumulated on-site for any length of time, and in any amount.

(iv) During accumulation, spent antifreeze must be stored in a manner to prevent releases to the environment. This includes, but is not limited to, storing wastes in compatible containers, on impermeable surfaces, or in secondary containment structures.

(b) If used antifreeze is mixed with another dangerous waste, generators are subject to the generator requirements, WAC 173-303-170 through 173-303-230.

(c) Persons who generate spent antifreeze that is not reclaimed/recycled, but is otherwise disposed, are subject to all applicable requirements of this chapter.

(3) Transporters and transfer facility requirements:

(a) Persons engaged in routine off-site transportation of spent antifreeze are required to obtain a state/EPA ID number, WAC 173-303-060, and to comply with the transporter requirements, WAC 173-303-240.

(b) If used antifreeze is mixed with another dangerous waste, transporters are subject to the generator requirements, WAC 173-303-170 through 173-303-230.

(c) Transporters who store used antifreeze at a transfer facility are allowed to use tanks or containers as defined in WAC 173-303-040, and store such waste for up to ten days, WAC 173-303-240(5).

Transporters may store used antifreeze at a transfer facility for longer than ten days if they meet the requirements for tank and/or container management, including secondary containment in WAC 173-303-630 through 173-303-640.

(4) Reclamation/recycling facility requirements: Owners and operators of antifreeze reclaiming/recycling facilities are subject to the conditions of WAC 173-303-120 (4)(c). These conditions apply equally to facilities whether or not twenty-four-hour storage of used antifreeze occurs prior to reclamation.

NEW SECTION

WAC 173-303-573 Standards for universal waste management. (1) Scope.

(a) This section establishes requirements for managing the following:

(i) Batteries as described in subsection (2) of this section; and

(ii) Thermostats as described in subsection (3) of this section.

(b) This section provides an alternative set of management standards in lieu of regulation under the rest of this chapter except for WAC 173-303-050, 173-303-145, and 173-303-960.

(2) Applicability—Batteries.

(a) Batteries covered under this section.

(i) The requirements of this section apply to persons managing batteries, as described in WAC 173-303-040, except those listed in (b) of this subsection.

(ii) Spent lead-acid batteries which are not managed under WAC 173-303-120 (3)(f) and 173-303-520, are subject to management under this section.

(b) Batteries not covered under this section. The requirements of this section do not apply to persons managing the following batteries:

(i) Spent lead-acid batteries that are managed under WAC 173-303-120(3) and 173-303-520.

(ii) Batteries, as described in WAC 173-303-040, that are not yet wastes under WAC 173-303-016, 173-303-017, or 173-303-070, including those that do not meet the criteria for waste generation in (c) of this subsection.

(iii) Batteries, as described in WAC 173-303-040, that are not dangerous waste. A battery is a dangerous waste if it exhibits one or more of the characteristics or criteria identified in WAC 173-303-090 or 173-303-100.

(c) Generation of waste batteries.

(i) A used battery becomes a waste on the date it is discarded (e.g., when sent for reclamation).

(ii) An unused battery becomes a waste on the date the handler decides to discard it.

(3) Applicability—Mercury thermostats.

(a) Thermostats covered under this section. The requirements of this section apply to persons managing thermostats, as described in WAC 173-303-040, except those listed in (b) of this subsection.

(b) Thermostats not covered under this section. The requirements of this section do not apply to persons managing the following thermostats:

(i) Thermostats that are not yet wastes under WAC 173-303-016, 173-303-017, or 173-303-070. Paragraph (c) of this subsection describes when thermostats become wastes.

(ii) Thermostats that are not dangerous waste. A thermostat is a dangerous waste if it exhibits one or more of the characteristics or criteria identified in WAC 173-303-090 or 173-303-100.

(c) Generation of waste thermostats.

(i) A used thermostat becomes a waste on the date it is discarded (e.g., sent for reclamation).

(ii) An unused thermostat becomes a waste on the date the handler decides to discard it.

(4) Applicability—Household and conditionally exempt small quantity generator waste.

(a) Persons managing the wastes listed below may, at their option, manage them under the requirements of this section:

(i) Household wastes that are exempt under WAC 173-303-071 (3)(c) and are also of the same type as the universal wastes defined at WAC 173-303-040; and/or

(ii) Small quantity generator wastes that are conditionally exempt under WAC 173-303-070(8) and are also of the same type as the universal wastes defined at WAC 173-303-040.

(b) Persons who commingle the wastes described in (a)(i) and (ii) of this subsection together with universal waste regulated under this section must manage the commingled waste under the requirements of this section.

(5) Reserve.

(6) Applicability—Small quantity handlers of universal waste. Subsections (6) through (16) of this section apply to small quantity handlers of universal waste (as defined in WAC 173-303-040).

(7) Prohibitions.

A small quantity handler of universal waste is:

- (a) Prohibited from disposing of universal waste; and
- (b) Prohibited from diluting or treating universal waste, except by responding to releases as provided in subsection (13) of this section; or by managing specific wastes as provided in subsection (9) of this section.

(8) Notification.

A small quantity handler of universal waste is not required to notify the department of universal waste handling activities.

(9) Waste management.

(a) Universal waste batteries. A small quantity handler of universal waste must manage universal waste batteries in a way that prevents releases of any universal waste or component of a universal waste to the environment, as follows:

(i) A small quantity handler of universal waste must contain any universal waste battery that shows evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions in a container. The container must be closed, structurally sound, compatible with the contents of the battery, and must lack evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions.

(ii) A small quantity handler of universal waste may conduct the following activities as long as the casing of each individual battery cell is not breached and remains intact and closed (except that cells may be opened to remove electrolyte but must be immediately closed after removal):

- (A) Sorting batteries by type;
- (B) Mixing battery types in one container;
- (C) Discharging batteries so as to remove the electric charge;
- (D) Regenerating used batteries;
- (E) Disassembling batteries or battery packs into individual batteries or cells;
- (F) Removing batteries from consumer products; or
- (G) Removing electrolyte from batteries.

(iii) A small quantity handler of universal waste who removes electrolyte from batteries, or who generates other solid waste (e.g., battery pack materials, discarded consumer products) as a result of the activities listed above, must determine whether the electrolyte and/or other solid waste exhibit a characteristic or criteria of dangerous waste identified in WAC 173-303-090 or 173-303-100.

(A) If the electrolyte and/or other solid waste exhibit a characteristic or criteria of dangerous waste, it is subject to all applicable requirements of this chapter. The handler is considered the generator of the dangerous electrolyte and/or other waste and is subject to WAC 173-303-170 through 173-303-230.

(B) If the electrolyte or other solid waste is not dangerous, the handler may manage the waste in any way that is in compliance with applicable federal, state or local solid waste regulations.

(b) Universal waste thermostats. A small quantity handler of universal waste must manage universal waste

thermostats in a way that prevents releases of any universal waste or component of a universal waste to the environment, as follows:

(i) A small quantity handler of universal waste must contain any universal waste thermostat that shows evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions in a container. The container must be closed, structurally sound, compatible with the contents of the thermostat, and must lack evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions.

(ii) A small quantity handler of universal waste may remove mercury-containing ampules from universal waste thermostats provided the handler:

(A) Removes the ampules in a manner designed to prevent breakage of the ampules;

(B) Removes ampules only over or in a containment device (e.g., tray or pan sufficient to collect and contain any mercury released from an ampule in case of breakage);

(C) Ensures that a mercury clean-up system is readily available to immediately transfer any mercury resulting from spills or leaks from broken ampules, from the containment device to a container that meets the requirements of WAC 173-303-200;

(D) Immediately transfers any mercury resulting from spills or leaks from broken ampules from the containment device to a container that meets the requirements of WAC 173-303-200;

(E) Ensures that the area in which ampules are removed is well ventilated and monitored to ensure compliance with applicable OSHA exposure levels for mercury;

(F) Ensures that employees removing ampules are thoroughly familiar with proper waste mercury handling and emergency procedures, including transfer of mercury from containment devices to appropriate containers;

(G) Stores removed ampules in closed, nonleaking containers that are in good condition;

(H) Packs removed ampules in the container with packing materials adequate to prevent breakage during storage, handling, and transportation; and

(iii)(A) A small quantity handler of universal waste who removes mercury-containing ampules from thermostats must determine whether the following exhibit a characteristic or criteria of dangerous waste identified in WAC 173-303-090 or 173-303-100:

(I) Mercury or clean-up residues resulting from spills or leaks; and/or

(II) Other solid waste generated as a result of the removal of mercury-containing ampules (e.g., remaining thermostat units).

(B) If the mercury, residues, and/or other solid waste exhibit a characteristic or criteria of dangerous waste, it must be managed in compliance with all applicable requirements of this chapter. The handler is considered the generator of the mercury, residues, and/or other waste and must manage it subject to WAC 173-303-170 through 173-303-230.

(C) If the mercury, residues, and/or other solid waste is not dangerous, the handler may manage the waste in any way that is in compliance with applicable federal, state or local solid waste regulations.

(10) Labeling/marketing.

A small quantity handler of universal waste must label or mark the universal waste to identify the type of universal waste as specified below:

(a) Universal waste batteries (i.e., each battery), or a container in which the batteries are contained, must be labeled or marked clearly with any one of the following phrases: "Universal Waste-Battery(ies), or "Waste Battery(ies)," or "Used Battery(ies);"

(b) Universal waste thermostats (i.e., each thermostat), or a container in which the thermostats are contained, must be labeled or marked clearly with any one of the following phrases: "Universal Waste-Mercury Thermostat(s)," or "Waste Mercury Thermostat(s)," or "Used Mercury Thermostat(s)."

(11) Accumulation time limits.

(a) A small quantity handler of universal waste may accumulate universal waste for no longer than one year from the date the universal waste is generated, or received from another handler, unless the requirements of (b) of this subsection are met.

(b) A small quantity handler of universal waste may accumulate universal waste for longer than one year from the date the universal waste is generated, or received from another handler, if such activity is solely for the purpose of accumulation of such quantities of universal waste as necessary to facilitate proper recovery, treatment, or disposal. However, the handler bears the burden of proving that such activity is solely for the purpose of accumulation of such quantities of universal waste as necessary to facilitate proper recovery, treatment, or disposal.

(c) A small quantity handler of universal waste who accumulates universal waste must be able to demonstrate the length of time that the universal waste has been accumulated from the date it becomes a waste or is received. The handler may make this demonstration by:

(i) Placing the universal waste in a container and marking or labeling the container with the earliest date that any universal waste in the container became a waste or was received;

(ii) Marking or labeling each individual item of universal waste (e.g., each battery or thermostat) with the date it became a waste or was received;

(iii) Maintaining an inventory system on-site that identifies the date each universal waste became a waste or was received;

(iv) Maintaining an inventory system on-site that identifies the earliest date that any universal waste in a group of universal waste items or a group of containers of universal waste became a waste or was received;

(v) Placing the universal waste in a specific accumulation area and identifying the earliest date that any universal waste in the area became a waste or was received; or

(vi) Any other method which clearly demonstrates the length of time that the universal waste has been accumulated from the date it becomes a waste or is received.

(12) Employee training.

A small quantity handler of universal waste must inform all employees who handle or have responsibility for managing universal waste. The information must describe proper handling and emergency procedures appropriate to the type(s) of universal waste handled at the facility.

(13) Response to releases.

(a) A small quantity handler of universal waste must immediately contain all releases of universal wastes and other residues from universal wastes.

(b) A small quantity handler of universal waste must determine whether any material resulting from the release is dangerous waste, and if so, must manage the dangerous waste in compliance with all applicable requirements of this chapter. The handler is considered the generator of the material resulting from the release, and must manage it in compliance with WAC 173-303-170 through 173-303-230.

(14) Off-site shipments.

(a) A small quantity handler of universal waste is prohibited from sending or taking universal waste to a place other than another universal waste handler, a destination facility, or a foreign destination.

(b) If a small quantity handler of universal waste self-transportes universal waste off-site, the handler becomes a universal waste transporter for those self-transportation activities and must comply with the transporter requirements of subsections (28) through (34) of this section while transporting the universal waste.

(c) If a universal waste being offered for off-site transportation meets the definition of hazardous materials under 49 CFR Parts 171 through 180, a small quantity handler of universal waste must package, label, mark and placard the shipment, and prepare the proper shipping papers in accordance with the applicable Department of Transportation regulations under 49 CFR Parts 172 through 180.

(d) Prior to sending a shipment of universal waste to another universal waste handler, the originating handler must ensure that the receiving handler agrees to receive the shipment.

(e) If a small quantity handler of universal waste sends a shipment of universal waste to another handler or to a destination facility and the shipment is rejected by the receiving handler or destination facility, the originating handler must either:

(i) Receive the waste back when notified that the shipment has been rejected, or

(ii) Agree with the receiving handler on a destination facility to which the shipment will be sent.

(f) A small quantity handler of universal waste may reject a shipment containing universal waste, or a portion of a shipment containing universal waste that he has received from another handler. If a handler rejects a shipment or a portion of a shipment, he must contact the originating handler to notify him of the rejection and to discuss reshipping of the load. The handler must:

(i) Send the shipment back to the originating handler; or

(ii) If agreed to by both the originating and receiving handler, send the shipment to a destination facility.

(g) If a small quantity handler of universal waste receives a shipment containing dangerous waste that is not a universal waste, the handler must immediately notify the department of the illegal shipment, and provide the name, address, and phone number of the originating shipper. The department will provide instructions for managing the dangerous waste.

(h) If a small quantity handler of universal waste receives a shipment of nondangerous, nonuniversal waste, the handler may manage the waste in any way that is in

compliance with applicable federal, state or local solid waste regulations.

(15) Tracking universal waste shipments.

A small quantity handler of universal waste is not required to keep records of shipments of universal waste.

(16) Exports.

A small quantity handler of universal waste who sends universal waste to a foreign destination must:

(a) Comply with the requirements applicable to a primary exporter in 40 CFR 262.53, 262.56(a) (1) through (4), (6), and (b) and 262.57 which are incorporated by reference at WAC 173-303-230(1);

(b) Export such universal waste only upon consent of the receiving country and in conformance with the EPA Acknowledgment of Consent as defined in 40 CFR Subpart E of Part 262 which is incorporated by reference at WAC 173-303-230(1); and

(c) Provide a copy of the EPA Acknowledgment of Consent for the shipment to the transporter transporting the shipment for export.

(17) Applicability—Large quantity handlers of universal waste.

Subsections (17) through (27) of this section apply to large quantity handlers of universal waste (as defined in WAC 173-303-040).

(18) Prohibitions.

A large quantity handler of universal waste is:

(a) Prohibited from disposing of universal waste; and
 (b) Prohibited from diluting or treating universal waste, except by responding to releases as provided in subsection (24) of this section; or by managing specific wastes as provided in subsection (20) of this section.

(19) Notification.

(a)(i) Except as provided in (a) (ii) and (iii) of this subsection, a large quantity handler of universal waste must have sent written notification of universal waste management to the department, and received an EPA Identification Number, before meeting or exceeding the 5,000 kilogram storage limit.

(ii) A large quantity handler of universal waste who has already notified the department of their dangerous waste management activities and has received an EPA Identification Number is not required to renotify under this section.

(b) This notification must include:

(i) The universal waste handler's name and mailing address;

(ii) The name and business telephone number of the person at the universal waste handler's site who should be contacted regarding universal waste management activities;

(iii) The address or physical location of the universal waste management activities;

(iv) A list of all of the types of universal waste managed by the handler (e.g., batteries or thermostats);

(v) A statement indicating that the handler is accumulating more than 11,000 pounds of universal waste at one time and the types of universal waste (e.g., batteries or thermostats) the handler is accumulating above this quantity.

(20) Waste management.

(a) Universal waste batteries. A large quantity handler of universal waste must manage universal waste batteries in a way that prevents releases of any universal waste or

component of a universal waste to the environment, as follows:

(i) A large quantity handler of universal waste must contain any universal waste battery that shows evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions in a container. The container must be closed, structurally sound, compatible with the contents of the battery, and must lack evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions.

(ii) A large quantity handler of universal waste may conduct the following activities as long as the casing of each individual battery cell is not breached and remains intact and closed (except that cells may be opened to remove electrolyte but must be immediately closed after removal):

(A) Sorting batteries by type;

(B) Mixing battery types in one container;

(C) Discharging batteries so as to remove the electric charge;

(D) Regenerating used batteries;

(E) Disassembling batteries or battery packs into individual batteries or cells;

(F) Removing batteries from consumer products; or

(G) Removing electrolyte from batteries.

(iii) A large quantity handler of universal waste who removes electrolyte from batteries, or who generates other solid waste (e.g., battery pack materials, discarded consumer products) as a result of the activities listed above, must determine whether the electrolyte and/or other solid waste exhibit a characteristic or criteria of dangerous waste identified in WAC 173-303-090 or 173-303-100.

(A) If the electrolyte and/or other solid waste exhibit a characteristic or criteria of dangerous waste, it must be managed in compliance with all applicable requirements of this chapter. The handler is considered the generator of the dangerous electrolyte and/or other waste and is subject to WAC 173-303-170 through 173-303-230.

(B) If the electrolyte or other solid waste is not dangerous, the handler may manage the waste in any way that is in compliance with applicable federal, state or local solid waste regulations.

(b) Universal waste thermostats. A large quantity handler of universal waste must manage universal waste thermostats in a way that prevents releases of any universal waste or component of a universal waste to the environment, as follows:

(i) A large quantity handler of universal waste must contain any universal waste thermostat that shows evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions in a container. The container must be closed, structurally sound, compatible with the contents of the thermostat, and must lack evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions.

(ii) A large quantity handler of universal waste may remove mercury-containing ampules from universal waste thermostats provided the handler:

(A) Removes the ampules in a manner designed to prevent breakage of the ampules;

(B) Removes ampules only over or in a containment device (e.g., tray or pan sufficient to contain any mercury released from an ampule in case of breakage);

(C) Ensures that a mercury clean-up system is readily available to immediately transfer any mercury resulting from spills or leaks from broken ampules, from the containment device to a container that meets the requirements of WAC 173-303-200;

(D) Immediately transfers any mercury resulting from spills or leaks from broken ampules from the containment device to a container that meets the requirements of WAC 173-303-200;

(E) Ensures that the area in which ampules are removed is well ventilated and monitored to ensure compliance with applicable OSHA exposure levels for mercury;

(F) Ensures that employees removing ampules are thoroughly familiar with proper waste mercury handling and emergency procedures, including transfer of mercury from containment devices to appropriate containers;

(G) Stores removed ampules in closed, nonleaking containers that are in good condition;

(H) Packs removed ampules in the container with packing materials adequate to prevent breakage during storage, handling, and transportation; and

(iii)(A) A large quantity handler of universal waste who removes mercury-containing ampules from thermostats must determine whether the following exhibit a characteristic or criteria of dangerous waste identified in WAC 173-303-090 or 173-303-100:

(I) Mercury or clean-up residues resulting from spills or leaks; and/or

(II) Other solid waste generated as a result of the removal of mercury-containing ampules (e.g., remaining thermostat units).

(B) If the mercury, residues, and/or other solid waste exhibit a characteristic or criteria of dangerous waste, it must be managed in compliance with all applicable requirements of this chapter. The handler is considered the generator of the mercury, residues, and/or other waste and is subject to WAC 173-303-170 through 173-303-230.

(C) If the mercury, residues, and/or other solid waste is not dangerous, the handler may manage the waste in any way that is in compliance with applicable federal, state or local solid waste regulations.

(21) Labeling/marketing.

A large quantity handler of universal waste must label or mark the universal waste to identify the type of universal waste as specified below:

(a) Universal waste batteries (i.e., each battery), or a container or tank in which the batteries are contained, must be labeled or marked clearly with the any one of the following phrases: "Universal Waste-Battery(ies)," or "Waste Battery(ies)," or "Used Battery(ies);"

(b) Universal waste thermostats (i.e., each thermostat), or a container or tank in which the thermostats are contained, must be labeled or marked clearly with any one of the following phrases: "Universal Waste-Mercury Thermostat(s)," or "Waste Mercury Thermostat(s)," or "Used Mercury Thermostat(s)."

(22) Accumulation time limits.

(a) A large quantity handler of universal waste may accumulate universal waste for no longer than one year from the date the universal waste is generated, or received from another handler, unless the requirements of (b) of this subsection are met.

(b) A large quantity handler of universal waste may accumulate universal waste for longer than one year from the date the universal waste is generated, or received from another handler, if such activity is solely for the purpose of accumulation of such quantities of universal waste as necessary to facilitate proper recovery, treatment, or disposal. However, the handler bears the burden of proving that such activity was solely for the purpose of accumulation of such quantities of universal waste as necessary to facilitate proper recovery, treatment, or disposal.

(c) A large quantity handler of universal waste must be able to demonstrate the length of time that the universal waste has been accumulated from the date it becomes a waste or is received. The handler may make this demonstration by:

(i) Placing the universal waste in a container and marking or labeling the container with the earliest date that any universal waste in the container became a waste or was received;

(ii) Marking or labeling the individual item of universal waste (e.g., each battery or thermostat) with the date it became a waste or was received;

(iii) Maintaining an inventory system on site that identifies the date the universal waste being accumulated became a waste or was received;

(iv) Maintaining an inventory system on site that identifies the earliest date that any universal waste in a group of universal waste items or a group of containers of universal waste became a waste or was received;

(v) Placing the universal waste in a specific accumulation area and identifying the earliest date that any universal waste in the area became a waste or was received; or

(vi) Any other method which clearly demonstrates the length of time that the universal waste has been accumulated from the date it becomes a waste or is received.

(23) Employee training.

A large quantity handler of universal waste must ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures, relative to their responsibilities during normal facility operations and emergencies.

(24) Response to releases.

(a) A large quantity handler of universal waste must immediately contain all releases of universal wastes and other residues from universal wastes.

(b) A large quantity handler of universal waste must determine whether any material resulting from the release is dangerous waste, and if so, must manage the dangerous waste in compliance with all applicable requirements of this chapter. The handler is considered the generator of the material resulting from the release, and is subject to WAC 173-303-145 and 173-303-170 through 173-303-230.

(25) Off-site shipments.

(a) A large quantity handler of universal waste is prohibited from sending or taking universal waste to a place other than another universal waste handler, a destination facility, or a foreign destination.

(b) If a large quantity handler of universal waste self-transportes universal waste off site, the handler becomes a universal waste transporter for those self-transportation activities and must comply with the transporter requirements of subsections (28) through (34) of this section while transporting the universal waste.

(c) If a universal waste being offered for off-site transportation meets the definition of hazardous materials under 49 CFR 171 through 180, a large quantity handler of universal waste must package, label, mark and placard the shipment, and prepare the proper shipping papers in accordance with the applicable Department of Transportation regulations under 49 CFR Parts 172 through 180;

(d) Prior to sending a shipment of universal waste to another universal waste handler, the originating handler must ensure that the receiving handler agrees to receive the shipment.

(e) If a large quantity handler of universal waste sends a shipment of universal waste to another handler or to a destination facility and the shipment is rejected by the receiving handler or destination facility, the originating handler must either:

(i) Receive the waste back when notified that the shipment has been rejected; or

(ii) Agree with the receiving handler on a destination facility to which the shipment will be sent.

(f) A large quantity handler of universal waste may reject a shipment containing universal waste, or a portion of a shipment containing universal waste that he has received from another handler. If a handler rejects a shipment or a portion of a shipment, he must contact the originating handler to notify him of the rejection and to discuss reshipping of the load. The handler must:

(i) Send the shipment back to the originating handler; or

(ii) If agreed to by both the originating and receiving handler, send the shipment to a destination facility.

(g) If a large quantity handler of universal waste receives a shipment containing dangerous waste that is not a universal waste, the handler must immediately notify the department of the illegal shipment, and provide the name, address, and phone number of the originating shipper. The department will provide instructions for managing the dangerous waste.

(h) If a large quantity handler of universal waste receives a shipment of nondangerous, nonuniversal waste, the handler may manage the waste in any way that is in compliance with applicable federal, state or local solid waste regulations.

(26) Tracking universal waste shipments.

(a) Receipt of shipments. A large quantity handler of universal waste must keep a record of each shipment of universal waste received at the facility. The record may take the form of a log, invoice, manifest, bill of lading, or other shipping document. The record for each shipment of universal waste received must include the following information:

(i) The name and address of the originating universal waste handler or foreign shipper from whom the universal waste was sent;

(ii) The quantity of each type of universal waste received (e.g., batteries or thermostats);

(iii) The date of receipt of the shipment of universal waste.

(b) Shipments off site. A large quantity handler of universal waste must keep a record of each shipment of universal waste sent from the handler to other facilities. The record may take the form of a log, invoice, manifest, bill of lading or other shipping document. The record for each

shipment of universal waste sent must include the following information:

(i) The name and address of the universal waste handler, destination facility, or foreign destination to whom the universal waste was sent;

(ii) The quantity of each type of universal waste sent (e.g., batteries or thermostats);

(iii) The date the shipment of universal waste left the facility.

(c) Record retention.

(i) A large quantity handler of universal waste must retain the records described in (a) of this subsection for at least three years from the date of receipt of a shipment of universal waste.

(ii) A large quantity handler of universal waste must retain the records described in (b) of this subsection for at least three years from the date a shipment of universal waste left the facility.

(27) Exports.

A large quantity handler of universal waste who sends universal waste to a foreign destination must:

(a) Comply with the requirements applicable to a primary exporter in 40 CFR 262.53, 262.56(a)(1) through (4), (6), and (b) and 262.57 which are incorporated by reference at WAC 173-303-230(1);

(b) Export such universal waste only upon consent of the receiving country and in conformance with the EPA Acknowledgment of Consent as defined in 40 CFR 262 Subpart E which is incorporated by reference at WAC 173-303-230(1); and

(c) Provide a copy of the EPA Acknowledgment of Consent for the shipment to the transporter transporting the shipment for export.

(28) Applicability—Universal waste transporters.

Subsections (28) through (34) of this section apply to universal waste transporters (as defined in WAC 173-303-040).

(29) Prohibitions.

A universal waste transporter is:

(a) Prohibited from disposing of universal waste; and

(b) Prohibited from diluting or treating universal waste, except by responding to releases as provided in subsection (32) of this section.

(30) Waste management.

(a) A universal waste transporter must comply with all applicable U.S. Department of Transportation regulations in 49 CFR Part 171 through 180 for transport of any universal waste that meets the definition of hazardous material in 49 CFR 171.8. For purposes of the Department of Transportation regulations, a material is considered a dangerous waste if it is subject to the Hazardous Waste Manifest Requirements of the U.S. Environmental Protection Agency specified in WAC 173-303-180. Because universal waste does not require a dangerous waste manifest, it is not considered hazardous waste under the Department of Transportation regulations.

(b) Some universal waste materials are regulated by the Department of Transportation as hazardous materials because they meet the criteria for one or more hazard classes specified in 49 CFR 173.2. As universal waste shipments do not require a manifest under WAC 173-303-180, they may not be described by the DOT proper shipping name "hazard-

ous waste, (l) or (s), n.o.s.," nor may the hazardous material's proper shipping name be modified by adding the word "waste."

(31) Storage time limits.

(a) A universal waste transporter may only store the universal waste at a universal waste transfer facility for ten days or less.

(b) If a universal waste transporter stores universal waste for more than ten days, the transporter becomes a universal waste handler and must comply with the applicable requirements for small or large quantity handlers (subsections (6) through (27) of this section) while storing the universal waste.

(32) Response to releases.

(a) A universal waste transporter must immediately contain all releases of universal wastes and other residues from universal wastes.

(b) A universal waste transporter must determine whether any material resulting from the release is dangerous waste, and if so, it is subject to all applicable requirements of this chapter. If the waste is determined to be a dangerous waste, the transporter is subject to WAC 173-303-145 and 173-303-170 through 173-303-230.

(33) Off-site shipments.

(a) A universal waste transporter is prohibited from transporting the universal waste to a place other than a universal waste handler, a destination facility, or a foreign destination.

(b) If the universal waste being shipped off site meets the Department of Transportation's definition of hazardous materials under 49 CFR 171.8, the shipment must be properly described on a shipping paper in accordance with the applicable Department of Transportation regulations under 49 CFR Part 172.

(34) Exports.

A universal waste transporter transporting a shipment of universal waste to a foreign destination may not accept a shipment if the transporter knows the shipment does not conform to the EPA Acknowledgment of Consent. In addition the transporter must ensure that:

(a) A copy of the EPA Acknowledgment of Consent accompanies the shipment; and

(b) The shipment is delivered to the facility designated by the person initiating the shipment.

(35) Applicability—Destination facilities. Subsections (35) through (37) of this section apply to destination facilities.

(a) The owner or operator of a destination facility (as defined in WAC 173-303-040) is subject to all applicable requirements of WAC 173-303-140 and 173-303-141, 173-303-280 through 173-303-525, 173-303-600 through 173-303-695, 173-303-800 through 173-303-840, and the notification requirement at WAC 173-303-060:

(b) The owner or operator of a destination facility that recycles a particular universal waste without storing that universal waste before it is recycled must comply with WAC 173-303-120 (4)(c).

(36) Off-site shipments.

(a) The owner or operator of a destination facility is prohibited from sending or taking universal waste to a place other than a universal waste handler, another destination facility or foreign destination.

(b) The owner or operator of a destination facility may reject a shipment containing universal waste, or a portion of a shipment containing universal waste. If the owner or operator of the destination facility rejects a shipment or a portion of a shipment, he must contact the shipper to notify him of the rejection and to discuss reshipment of the load. The owner or operator of the destination facility must:

(i) Send the shipment back to the original shipper; or

(ii) If agreed to by both the shipper and the owner or operator of the destination facility, send the shipment to another destination facility.

(c) If the owner or operator of a destination facility receives a shipment containing dangerous waste that is not a universal waste, the owner or operator of the destination facility must immediately notify the department of the illegal shipment, and provide the name, address, and phone number of the shipper. The department will provide instructions for managing the dangerous waste.

(d) If the owner or operator of a destination facility receives a shipment of nondangerous, nonuniversal waste, the owner or operator may manage the waste in any way that is in compliance with applicable federal or state solid waste regulations.

(37) Tracking universal waste shipments.

(a) The owner or operator of a destination facility must keep a record of each shipment of universal waste received at the facility. The record may take the form of a log, invoice, manifest, bill of lading, or other shipping document. The record for each shipment of universal waste received must include the following information:

(i) The name and address of the universal waste handler, destination facility, or foreign shipper from whom the universal waste was sent;

(ii) The quantity of each type of universal waste received (e.g., batteries or thermostats);

(iii) The date of receipt of the shipment of universal waste.

(b) The owner or operator of a destination facility must retain the records described in (a) of this subsection for at least three years from the date of receipt of a shipment of universal waste.

(38) Imports.

Persons managing universal waste that is imported from a foreign country into the United States are subject to the applicable requirements of this section, immediately after the waste enters the United States, as indicated below:

(a) A universal waste transporter is subject to the universal waste transporter requirements of subsections (28) through (34) of this section.

(b) A universal waste handler is subject to the small or large quantity handler of universal waste requirements of subsections (6) through (27) of this section, as applicable.

(c) An owner or operator of a destination facility is subject to the destination facility requirements of subsections (35) through (37) of this section.

(39) General—Petitions. Subsections (39) and (40) of this section address petitions to include other wastes under this section.

(a) Any person seeking to add a dangerous waste or a category of dangerous waste to this section may petition for a regulatory amendment under subsections (39) and (40) of this section and WAC 173-303-910 (1) and (7).

(b) To be successful, the petitioner must demonstrate to the satisfaction of the department that regulation under the universal waste regulations of this section is: Appropriate for the waste or category of waste; will improve management practices for the waste or category of waste; and will improve implementation of the dangerous waste program. The petition must include the information required by WAC 173-303-910 (1)(b). The petition should also address as many of the factors listed in subsection (40) of this section as are appropriate for the waste or waste category addressed in the petition.

(c) The department will evaluate petitions using the factors listed in subsection (40) of this section. The department will grant or deny a petition using the factors listed in subsection (40) of this section. The decision will be based on the weight of evidence showing that regulation under this section is appropriate for the waste or category of waste, will improve management practices for the waste or category of waste, and will improve implementation of the dangerous waste program.

(40) Factors for petitions to include other wastes under this section.

(a) The waste or category of waste, as generated by a wide variety of generators, is listed in WAC 173-303-081 or 173-303-082, or (if not listed) a proportion of the waste stream exhibits one or more characteristics or criteria of dangerous waste identified in WAC 173-303-090 or 173-303-100. (When a characteristic waste is added to the universal waste regulations of this section by using a generic name to identify the waste category (e.g., batteries), the definition of universal waste in WAC 173-303-040 will be amended to include only the dangerous waste portion of the waste category (e.g., dangerous waste batteries).) Thus, only the portion of the waste stream that does exhibit one or more characteristics or criteria (i.e., is dangerous waste) is subject to the universal waste regulations of this section;

(b) The waste or category of waste is not exclusive to a specific industry or group of industries, is commonly generated by a wide variety of types of establishments (including, for example, households, retail and commercial businesses, office complexes, conditionally exempt small quantity generators, small businesses, government organizations, as well as large industrial facilities);

(c) The waste or category of waste is generated by a large number of generators (e.g., more than 1,000 nationally) and is frequently generated in relatively small quantities by each generator;

(d) Systems to be used for collecting the waste or category of waste (including packaging, marking, and labeling practices) would ensure close stewardship of the waste;

(e) The risk posed by the waste or category of waste during accumulation and transport is relatively low compared to other dangerous wastes, and specific management standards proposed or referenced by the petitioner (e.g., waste management requirements appropriate to be added to subsections (9), (20), and (30) of this section; and/or applicable Department of Transportation requirements) would be protective of human health and the environment during accumulation and transport;

(f) Regulation of the waste or category of waste under this section will increase the likelihood that the waste will be

diverted from nondangerous waste management systems (e.g., the municipal waste stream, nondangerous industrial or commercial waste stream, municipal sewer or stormwater systems) to recycling, treatment, or disposal in compliance with the Hazardous Waste Management Act chapter 70.105 RCW, this chapter, and RCRA Subtitle C.

(g) Regulation of the waste or category of waste under this section will improve implementation of and compliance with the dangerous waste regulatory program; and/or

(h) Such other factors as may be appropriate.

AMENDATORY SECTION (Amending Order 94-30, filed 10/19/95, effective 11/19/95)

WAC 173-303-600 Final facility standards. Purpose, scope, and applicability.

(1) The purpose of WAC 173-303-600 through ~~((473-303-680))~~ 173-303-695, is to establish minimum state-wide standards which describe the acceptable management of dangerous waste. In addition to WAC 173-303-600 through ~~((473-303-680))~~ 173-303-695, the final facility standards include WAC 173-303-280 through 173-303-395.

(2) The final facility standards apply to owners and operators of all facilities which treat, store or dispose of dangerous waste, and which are not exempted by subsection (3) of this section.

(3) The final facility standards do not apply to:

(a) Persons whose disposal activities are permitted under the Marine Protection, Research and Sanctuaries Act, except that storage, or treatment facilities where dangerous waste is loaded onto an ocean vessel for incineration or disposal at sea are subject to final facility standards;

(b) Persons whose disposal activities are permitted under the underground injection control program of the Safe Drinking Water Act, except that storage, or treatment facilities needed to handle dangerous wastes are subject to final facility standards;

(c) The owner or operator of a POTW which treats, stores, or disposes of dangerous waste provided he has a permit by rule pursuant to the requirements of WAC 173-303-802(4);

(d) A generator accumulating waste on site in compliance with WAC 173-303-200;

(e) The owner or operator of a facility which is permitted to manage solid waste pursuant to chapter 173-304 WAC, if the only dangerous waste the facility manages is excluded from regulation under this chapter by WAC 173-303-070(8);

(f) A farmer disposing of waste pesticides from his own use provided he complies with WAC 173-303-160 (2)(b);

(g) A transporter storing a manifested shipment of dangerous waste for ten days or less in accordance with WAC 173-303-240(5);

(h) Any person, other than an owner or operator who is already subject to the final facility standards, who is carrying out an immediate or emergency response to contain or treat a discharge or potential discharge of a dangerous waste or hazardous substance;

(i) The owner or operator of a facility which is in compliance with the interim status requirements of WAC 173-303-400 and 173-303-805, until final administrative disposition of his final facility permit;

(j) The owner or operator of a totally enclosed treatment facility or elementary neutralization or wastewater treatment unit as defined in WAC 173-303-040, provided that he has a permit by rule pursuant to the requirements of WAC 173-303-802(5);

(k) The addition, by a generator, of absorbent material to waste in a container, or of waste to absorbent material in a container, provided that these actions occur at the time the waste is first placed in containers or, in the case of repackaging of previously containerized waste into new containers, at the time the waste is first placed into the new containers and the generator complies with WAC 173-303-200 (1)(b) and 173-303-395 (1)(a) and (b);

(l) The compaction or sorting of miscellaneous waste forms such as cans, rags, and bottles in a container, so long as the activity is solely for the purpose of reducing waste void space, and so long as these activities are conducted in a manner that protects human health and prevents any release to the environment and the generator complies with WAC 173-303-200 (1)(b) and 173-303-395 (1)(a) and (b);

(m) Generators treating dangerous waste on-site in tanks ~~((or))~~, containers, or containment buildings that are used for accumulation of such wastes provided the generator complies with the WAC 173-303-170(3); ~~((and))~~

(n) The owner or operator of an elementary neutralization unit or a wastewater treatment unit as defined in WAC 173-303-040, provided that if the owner or operator is diluting hazardous ignitable (D001) wastes (other than the D001 High TOC Subcategory defined in 40 CFR section 268.40, Table Treatment Standards for Hazardous Wastes), or reactive (D003) waste, to remove the characteristic before land disposal, the owner/operator must comply with the requirements set out in WAC 173-303-395 (1)(a); and

(o) Universal waste handlers and universal waste transporters (as defined in WAC 173-303-040) handling the wastes listed below. These handlers are subject to regulation under WAC 173-303-573, when handling the below listed universal wastes.

(i) Batteries as described in WAC 173-303-573(2); and

(ii) Thermostats as described in WAC 173-303-573(3).

(4) Reserve.

(5) The owner or operator of a facility which recycles dangerous waste may, for such recycled wastes only, comply with the applicable recycling standards specified in WAC 173-303-120 and 173-303-500 through 173-303-525 in lieu of the final facility standards.

(6) The owner or operator must comply with the special land disposal restrictions for certain dangerous wastes in WAC 173-303-140.

(7) The final facility requirements apply to owners or operators of all facilities that treat, store, or dispose of hazardous wastes referred to in 40 CFR Part 268, which is incorporated by reference at WAC 173-303-140(2).

AMENDATORY SECTION (Amending Order 94-30, filed 10/19/95, effective 11/19/95)

WAC 173-303-610 Closure and postclosure. (1) Applicability.

(a) Subsections (2) through (6) of this section, (which concern closure), apply to the owners and operators of all dangerous waste facilities.

(b) Subsections (7) through (11) of this section, (which concern postclosure care), apply to the owners and operators of all regulated units (as defined in WAC 173-303-040) at which dangerous waste will remain after closure, to tank systems that are required under WAC 173-303-640(8) to meet the requirements of landfills, to surface impoundments, waste piles, and miscellaneous units as specified in WAC 173-303-650(6), 173-303-660(9), and 173-303-680(4), respectively; to containment buildings that are required under 40 CFR 264.1102 (incorporated by reference at WAC 173-303-695) to meet the requirements for landfills; and, unless otherwise authorized by the department, to the owners and operators of all facilities which, at closure, cannot meet the removal or decontamination limits specified in subsection (2)(b) of this section.

(c) For the purposes of the closure and postclosure requirements, any portion of a facility which closes is subject to the applicable closure and postclosure standards even if the rest of the facility does not close and continues to operate.

(2) Closure performance standard. The owner or operator must close the facility in a manner that:

(a)(i) Minimizes the need for further maintenance;

(ii) Controls, minimizes or eliminates to the extent necessary to protect human health and the environment, postclosure escape of dangerous waste, dangerous constituents, leachate, contaminated run-off, or dangerous waste decomposition products to the ground, surface water, ground water, or the atmosphere; and

(iii) Returns the land to the appearance and use of surrounding land areas to the degree possible given the nature of the previous dangerous waste activity.

(b) Where the closure requirements of this section, or of WAC 173-303-630(10), 173-303-640(8), 173-303-650(6), 173-303-655(6), 173-303-655(8), 173-303-660(9), 173-303-665(6), 173-303-670(8), 173-303-680 (2) through (4), or 40 CFR 264.1102 (incorporated by reference at WAC 173-303-695) call for the removal or decontamination of dangerous wastes, waste residues, or equipment, bases, liners, soils or other materials containing or contaminated with dangerous wastes or waste residue, then such removal or decontamination must assure that the levels of dangerous waste or dangerous waste constituents or residues do not exceed:

(i) For soils, ground water, surface water, and air, the numeric cleanup levels calculated using residential exposure assumptions according to the Model Toxics Control Act Regulations, chapter 173-340 WAC as now or hereafter amended. Primarily, these will be numeric cleanup levels calculated according to MTCA Method B, although MTCA Method A may be used as appropriate, see WAC 173-340-700 through 173-340-760, excluding WAC 173-340-745; and

(ii) For all structures, equipment, bases, liners, etc., clean closure standards will be set by the department on a case-by-case basis in accordance with the closure performance standards of WAC 173-303-610 (2)(a)(ii) and in a manner that minimizes or eliminates post-closure escape of dangerous waste constituents.

(3) Closure plan; amendment of plan.

(a) The owner or operator of a dangerous waste management facility must have a written closure plan. In addition, certain surface impoundments and waste piles from which the owner or operator intends to remove or decontaminate

inate the dangerous waste at partial or final closure are required by WAC 173-303-650(6) and 173-303-660(9) to have contingent closure plans. The plan must be submitted with the permit application, in accordance with WAC 173-303-806(4), and approved by the department as part of the permit issuance procedures under WAC 173-303-840. The approved closure plan will become a condition of any permit. The department's decision must assure that the approved closure plan is consistent with subsections (2), (3), (4), (5), and (6) of this section, and the applicable requirements of WAC 173-303-630(10), 173-303-640(8), 173-303-645, 173-303-650(6), 173-303-655(8), 173-303-660(9), 173-303-665(6), 173-303-670(8), 173-303-680(2), and 40 CFR 264.1102 (incorporated by reference at WAC 173-303-695). A copy of the approved plan and all revisions to the plan must be furnished to the department upon request, including request by mail until final closure is completed and certified in accordance with subsection (6) of this section. The plan must identify steps necessary to perform partial and/or final closure of the facility at any point during its active life. The closure plan must include at least:

(i) A description of how each dangerous waste management unit at the facility will be closed in accordance with subsection (2) of this section;

(ii) A description of how final closure of the facility will be conducted in accordance with subsection (2) of this section. The description must identify the maximum extent of the operation which will be unclosed during the active life of the facility;

(iii) An estimate of the maximum inventory of dangerous wastes ever on-site over the active life of the facility. (Any change in this estimate is a minor modification under WAC 173-303-830(4));

(iv) A detailed description of the methods to be used during partial closures and final closure, including, but not limited to, methods for removing, transporting, treating, storing, or disposing of all dangerous wastes, and identification of the type(s) of the off-site dangerous waste management units to be used, if applicable;

(v) A detailed description of the steps needed to remove or decontaminate all dangerous waste residues and contaminated containment system components, equipment, structures, and soils during partial and final closure, including, but not limited to, procedures for cleaning equipment and removing contaminated soils, methods for sampling and testing surrounding soils, and criteria for determining the extent of decontamination required to satisfy the closure performance standard;

(vi) A detailed description of other activities necessary during the closure period to ensure that all partial closures and final closure satisfy the closure performance standards, including, but not limited to, ground water monitoring, leachate collection, and run-on and run-off control; ~~(and)~~

(vii) A schedule for closure of each dangerous waste management unit and for final closure of the facility. The schedule must include, at a minimum, the total time required to close each dangerous waste management unit and the time required for intervening closure activities which will allow tracking of the progress of partial and final closure. (For example, in the case of a landfill unit, estimates of the time required to treat or dispose of all dangerous waste inventory

and of the time required to place a final cover must be included.) ~~((Additionally)); and~~

(viii) For facilities that use trust funds to establish financial assurance under WAC 173-303-620 (4) or (6) and that are expected to close prior to the expiration of the permit, an estimate of the expected year of final closure.

(b) The owner or operator must submit a written notification of or request for a permit modification to authorize a change in operating plans, facility design, or the approved closure plan in accordance with the applicable procedures in WAC 173-303-800 through 173-303-840. The written notification or request must include a copy of the amended closure plan for review or approval by the department.

(i) The owner or operator may submit a written notification or request to the department for a permit modification to amend the closure plan at any time prior to the notification of partial or final closure of the facility.

(ii) The owner or operator must submit a written notification of or request for a permit modification to authorize a change in the approved closure plan whenever:

(A) Changes in operating plans or facility design affect the closure plan; or

(B) There is a change in the expected year of closure, if applicable; or

(C) In conducting partial or final closure activities, unexpected events require a modification of the approved closure plan.

(iii) The owner or operator must submit a written request for a permit modification including a copy of the amended closure plan for approval at least sixty days prior to the proposed change in facility design or operation, or no later than sixty days after an unexpected event has occurred which has affected the closure plan. If an unexpected event occurs during the partial or final closure period, the owner or operator must request a permit modification no later than thirty days after the unexpected event. An owner or operator of a surface impoundment or waste pile that intends to remove all dangerous waste at closure and is not otherwise required to prepare a contingent closure plan under WAC 173-303-650(6) or 173-303-660(9), must submit an amended closure plan to the department no later than sixty days from the date that the owner or operator or department determines that the dangerous waste management unit must be closed as a landfill, subject to the requirements of WAC 173-303-665, or no later than thirty days from that date if the determination is made during partial or final closure. The department will approve, disapprove, or modify this amended plan in accordance with the procedures in WAC 173-303-800 through 173-303-840. The approved closure plan will become a condition of any permit issued.

(iv) The department may request modifications to the plan under the conditions described in (b)(ii) of this subsection. The owner or operator must submit the modified plan within sixty days of the department's request, or within thirty days if the change in facility conditions occurs during partial or final closure. Any modifications requested by the department will be approved in accordance with the procedures in WAC 173-303-800 through 173-303-840.

(c) Notification of partial closure and final closure.

(i) The owner or operator must notify the department in writing at least sixty days prior to the date on which he

expects to begin closure of a surface impoundment, waste pile, land treatment, or landfill unit, or final closure of a facility with such a unit. The owner or operator must notify the department in writing at least forty-five days prior to the date on which he expects to begin final closure of a facility with only treatment or storage tanks, container storage, or incinerator units to be closed.

(ii) The date when he "expects to begin closure" must be either:

(A) No later than thirty days after the date on which any dangerous waste management unit receives the known final volume of dangerous wastes or, if there is a reasonable possibility that the dangerous waste management unit will receive additional dangerous wastes, no later than one year after the date on which the unit received the most recent volume of dangerous waste. If the owner or operator of a dangerous waste management unit can demonstrate to the department that the dangerous waste management unit or facility has the capacity to receive additional dangerous wastes and he has taken, and will continue to take, all steps to prevent threats to human health and the environment, including compliance with all applicable permit requirements, the department may approve an extension to this one-year limit; or

(B) For units meeting the requirements of subsection (4)(d) of this section, no later than thirty days after the date on which the dangerous waste management unit receives the known final volume of nondangerous wastes, or if there is a reasonable possibility that the dangerous waste management unit will receive additional nondangerous wastes, no later than one year after the date on which the unit received the most recent volume of nondangerous wastes. If the owner or operator can demonstrate to the department that the dangerous waste management unit has the capacity to receive additional nondangerous wastes and he has taken, and will continue to take, all steps to prevent threats to human health and the environment, including compliance with all applicable permit requirements, the department may approve an extension to this one-year limit.

(iii) If the facility's permit is terminated, or if the facility is otherwise ordered, by judicial decree or final order to cease receiving dangerous wastes or to close, then the requirements of (c) of this subsection do not apply. However, the owner or operator must close the facility in accordance with the deadlines established in subsection (4) of this section.

(iv) Removal of wastes and decontamination or dismantling of equipment. Nothing in this subsection will preclude the owner or operator from removing dangerous wastes and decontaminating or dismantling equipment in accordance with the approved partial or final closure plan at any time before or after notification of partial or final closure.

(4) Closure; time allowed for closure.

(a) Within ninety days after receiving the final volume of dangerous wastes, or the final volume of nondangerous wastes if the owner or operator complies with all applicable requirements in (d) and (e) of this subsection, at a dangerous waste management unit or facility, the owner or operator must treat, remove from the unit or facility, or dispose of on site, all dangerous wastes in accordance with the approved closure plan. The department may approve a longer period if the owner or operator complies with all applicable

requirements for requesting a modification to the permit and demonstrates that he has taken and will continue to take all steps to prevent threats to human health and the environment, including compliance with all applicable permit requirements, and either:

(i) The activities required to comply with this paragraph will, of necessity, take longer than ninety days to complete; or

(ii)(A) The dangerous waste management unit or facility has the capacity to receive additional dangerous wastes, or has the capacity to receive nondangerous wastes if the owner or operator complies with (d) and (e) of this subsection;

(B) There is a reasonable likelihood that he or another person will recommence operation of the dangerous waste management unit or the facility within one year; and

(C) Closure of the dangerous waste management unit or facility would be incompatible with continued operation of the site.

(b) The owner or operator must complete partial and final closure activities in accordance with the approved closure plan and within one hundred eighty days after receiving the final volume of dangerous wastes, or the final volume of nondangerous wastes if the owner or operator complies with all applicable requirements in (d) and (e) of this subsection, at the dangerous waste management unit or facility. The department may approve an extension to the closure period if the owner or operator complies with all applicable requirements for requesting a modification to the permit and demonstrates that he has taken and will continue to take all steps to prevent threats to human health and the environment from the unclosed but not operating dangerous waste management unit or facility, including compliance with all applicable permit requirements, and either:

(i) The partial or final closure activities will, of necessity, take longer than one hundred eighty days to complete; or

(ii)(A) The dangerous waste management unit or facility has the capacity to receive additional dangerous wastes, or has the capacity to receive nondangerous wastes if the owner or operator complies with (d) and (e) of this subsection;

(B) There is reasonable likelihood that he or another person will recommence operation of the dangerous waste management unit or the facility within one year; and

(C) Closure of the dangerous waste management unit or facility would be incompatible with continued operation of the site.

(c) The demonstrations referred to in (a)(i) and (b)(i) of this subsection must be made as follows: The demonstrations in (a)(i) of this subsection must be made at least thirty days prior to the expiration of the specified ninety-day period; and the demonstration in (b)(i) of this subsection must be made at least thirty days prior to the expiration of the specified one hundred eighty-day period unless the owner or operator is otherwise subject to the deadlines in (d) of this subsection.

(d) The department may allow an owner or operator to receive only nondangerous wastes in a landfill, land treatment, or surface impoundment unit after the final receipt of dangerous wastes at that unit if:

(i) The owner or operator requests a permit modification in compliance with all applicable requirements in WAC 173-303-830 and 40 CFR Part 124 and in the permit modification request demonstrates that:

(A) The unit has the existing design capacity as indicated on the part A application to receive nondangerous wastes; and

(B) There is a reasonable likelihood that the owner or operator or another person will receive nondangerous wastes in the unit within one year after the final receipt of dangerous wastes; and

(C) The nondangerous wastes will not be incompatible with any remaining wastes in the unit, or with the facility design and operating requirements of the unit or facility under this part; and

(D) Closure of the dangerous waste management unit would be incompatible with continued operation of the unit or facility; and

(E) The owner or operator is operating and will continue to operate in compliance with all applicable permit requirements; and

(ii) The request to modify the permit includes an amended wastes analysis plan, ground water monitoring and response program, human exposure assessment required under RCRA section 3019, and closure and postclosure plan, and updated cost estimates and demonstrations of financial assurance for closure and postclosure care as necessary and appropriate, to reflect any changes due to the presence of dangerous constituents in the nondangerous wastes, and changes in closure activities, including the expected year of closure if applicable under subsection (3)(a)(~~(vii)~~) (viii) of this section, as a result of the receipt of nondangerous wastes following the final receipt of dangerous wastes; and

(iii) The request to modify the permit includes revisions, as necessary and appropriate, to affected conditions of the permit to account for the receipt of nondangerous wastes following receipt of the final volume of dangerous wastes; and

(iv) The request to modify the permit and the demonstration referred to in (d)(i) and (ii) of this subsection are submitted to the department no later than one hundred twenty days prior to the date on which the owner or operator of the facility receives the known final volume of dangerous wastes at the unit, or no later than ninety days after the effective date of this rule in the state in which the unit is located, whichever is later.

(e) In addition to the requirements in (d) of this subsection, an owner or operator of a dangerous wastes surface impoundment that is not in compliance with the liner and leachate collection system requirements in 42 U.S.C. 3004 (o)(1) and 3005 (j)(1) or 42 U.S.C. 3004 (o)(2) or (3) or 3005 (j)(2), (3), (4) or (13) must:

(i) Submit with the request to modify the permit:

(A) A contingent corrective measures plan, unless a corrective action plan has already been submitted under WAC 173-303-645(10); and

(B) A plan for removing dangerous wastes in compliance with (e)(ii) of this subsection; and

(ii) Remove all dangerous wastes from the unit by removing all dangerous liquids, and removing all dangerous sludges to the extent practicable without impairing the integrity of the liner(s), if any.

(iii) Removal of dangerous wastes must be completed no later than ninety days after the final receipt of dangerous wastes. The department may approve an extension to this deadline if the owner or operator demonstrates that the

removal of dangerous wastes will, of necessity, take longer than the allotted period to complete and that an extension will not pose a threat to human health and the environment.

(iv) If a release that is a statistically significant increase (or decrease in the case of pH) over background values for detection monitoring parameters of constituents specified in the permit or that exceeds the facility's ground water protection standard at the point of compliance, if applicable, is detected in accordance with the requirements in WAC 173-303-645, the owner or operator of the unit:

(A) Must implement corrective measures in accordance with the approved contingent corrective measures plan required by (e)(i) of this subsection no later than one year after detection of the release, or approval of the contingent corrective measures plan, whichever is later;

(B) May continue to receive wastes at the unit following detection of the release only if the approved corrective measures plan includes a demonstration that continued receipt of wastes will not impede corrective action; and

(C) May be required by the department to implement corrective measures in less than one year or to cease the receipt of wastes until corrective measures have been implemented if necessary to protect human health and the environment.

(v) During the period of corrective action, the owner or operator must provide semiannual reports to the department that describe the progress of the corrective action program, compile all ground water monitoring data, and evaluate the effect of the continued receipt of nondangerous wastes on the effectiveness of the corrective action.

(vi) The department may require the owner or operator to commence closure of the unit if the owner or operator fails to implement corrective action measures in accordance with the approved contingent corrective measures plan within one year as required in (e)(iv) of this subsection, or fails to make substantial progress in implementing corrective action and achieving the facility's ground water protection standard or background levels if the facility has not yet established a ground water protection standard.

(vii) If the owner or operator fails to implement corrective measures as required in (e)(iv) of this subsection or if the department determines that substantial progress has not been made pursuant to (e)(vi) of this subsection the department will:

(A) Notify the owner or operator in writing that the owner or operator must begin closure in accordance with the deadline in (a) and (b) of this subsection and provide a detailed statement of reasons for this determination; and

(B) Provide the owner or operator and the public, through a newspaper notice, the opportunity to submit written comments on the decision no later than twenty days after the date of the notice.

(C) If the department receives no written comments, the decision will become final five days after the close of the comment period. The department will notify the owner or operator that the decision is final, and that a revised closure plan, if necessary, must be submitted within fifteen days of the final notice and that closure must begin in accordance with the deadlines in (a) and (b) of this subsection.

(D) If the department receives written comments on the decision, it will make a final decision within thirty days after the end of the comment period, and provide the owner or

operator in writing and the public through a newspaper notice, a detailed statement of reasons for the final decision. If the department determines that substantial progress has not been made, closure must be initiated in accordance with the deadlines in (a) and (b) of this subsection.

(E) The final determinations made by the department under (e)(vii)(C) and (D) of this subsection are not subject to administrative appeal.

(5) Disposal or decontamination of equipment, structures and soils. During the partial and final closure periods, all contaminated equipment, structures and soils must be properly disposed of or decontaminated unless otherwise specified in WAC 173-303-640(8), 173-303-650(6), 173-303-655(8), 173-303-660(9), 173-303-665(6), or under the authority of WAC 173-303-680 (2) and (4). By removing any dangerous wastes or dangerous constituents during partial and final closure, the owner or operator may become a generator of dangerous waste and must handle that waste in accordance with all applicable requirements of WAC 173-303-170 through 173-303-230.

(6) Certification of closure. Within sixty days of completion of closure of each dangerous waste management unit (including tank systems and container storage areas), and within sixty days of the completion of final closure, the owner or operator must submit to the department by registered mail, a certification that the dangerous waste management unit or facility, as applicable, has been closed in accordance with the specifications in the approved closure plan. The certification must be signed by the owner or operator and by an independent registered professional engineer. Documentation supporting the independent registered professional engineer's certification must be furnished to the department upon request until it releases the owner or operator from the financial assurance requirements for closure under WAC 173-303-620(4).

(7) Postclosure care and use of property.

(a) Postclosure care for each dangerous waste management unit subject to postclosure care requirements must begin after completion of closure of the unit and continue for thirty years after that date and must consist of at least the following:

(i) Ground water monitoring and reporting as required by WAC 173-303-645, 173-303-650, 173-303-655, 173-303-660, 173-303-665, and 173-303-680; and

(ii) Maintenance and monitoring of waste containment systems as applicable.

(b) Any time preceding partial closure of a dangerous waste management unit subject to postclosure care requirements or final closure, or any time during the postclosure period for a particular unit, the department may, in accordance with the permit modification procedures in WAC 173-303-800 through 173-303-840:

(i) Shorten the postclosure care period applicable to the dangerous waste management unit, or facility, if all disposal units have been closed, if it finds that the reduced period is sufficient to protect human health and the environment (e.g., leachate or ground water monitoring results, characteristics of the dangerous waste, application of advanced technology, or alternative disposal, treatment, or reuse techniques indicate that the dangerous waste management unit or facility is secure); or

(ii) Extend the postclosure care period applicable to the dangerous waste management unit or facility if it finds that the extended period is necessary to protect human health and the environment (e.g., leachate or ground water monitoring results indicate a potential for migration of dangerous waste at levels which may be harmful to human health and the environment).

(c) The department may require, at partial or final closure, continuation of any of the security requirements of WAC 173-303-310 during part or all of the postclosure period when:

(i) Dangerous wastes may remain exposed after completion of partial or final closure; or

(ii) Access by the public or domestic livestock may pose a hazard to human health.

(d) Postclosure use of property on or in which dangerous wastes remain after partial or final closure must never be allowed to disturb the integrity of the final cover, liner(s), or any other components of any containment system, or the function of the facility's monitoring systems, unless the department finds that the disturbance:

(i) Is necessary to the proposed use of the property, and will not increase the potential hazard to human health or the environment; or

(ii) Is necessary to reduce a threat to human health or the environment.

(e) All postclosure care activities must be in accordance with the provisions of the approved postclosure plan as specified in subsection (8) of this section.

(8) Postclosure plan; amendment of plan.

(a) The owner or operator of a dangerous waste disposal unit must have a written postclosure plan. In addition, certain surface impoundments and certain piles from which the owner or operator intends to remove or decontaminate the dangerous wastes at partial or final closure are required by WAC 173-303-650 and 173-303-660, respectively, to have written contingent postclosure plans. Owners or operators of surface impoundments and waste piles not otherwise required to prepare contingent postclosure plans under WAC 173-303-650 or 173-303-660 must submit a postclosure plan to the department within ninety days from the date that the owner or operator or department determines that the dangerous waste management unit must be closed as a landfill, subject to the postclosure requirements. The plan must be submitted with the permit application, in accordance with WAC 173-303-806, and approved by the department as part of the permit issuance procedures under WAC 173-303-840. The approved postclosure plan will become a condition of any permit issued.

(b) For each dangerous waste management unit subject to the requirements of this subsection, the postclosure plan must identify the activities which will be carried on after closure and the frequency of these activities, and include at least:

(i) A description of the planned ground water monitoring activities and frequencies at which they will be performed;

(ii) A description of the planned maintenance activities, and frequencies at which they will be performed to comply with WAC 173-303-645, 173-303-650, 173-303-655, 173-303-660, 173-303-665, and 173-303-680 during the postclosure care period, to ensure:

(A) The integrity of the cap and final cover or other containment structures in accordance with the requirements of 173-303-645, 173-303-650, 173-303-655, 173-303-660, 173-303-665, and 173-303-680; and

(B) The function of the facility monitoring equipment;

(iii) And the name, address, and phone number of the person or office to contact about the dangerous waste disposal unit or facility during the postclosure care period.

(c) Until final closure of the facility, a copy of the approved postclosure plan must be furnished to the department upon request, including request by mail. After final closure has been certified, the person or office specified in (b)(iii) of this subsection must keep the approved postclosure plan during the remainder of the postclosure period.

(d) Amendment of plan. The owner or operator must submit a written notification of or request for a permit modification to authorize a change in the approved postclosure plan in accordance with the applicable requirements of WAC 173-303-800 through 173-303-840. The written notification or request must include a copy of the amended postclosure plan for review or approval by the department.

(i) The owner or operator may submit a written notification or request to the department for a permit modification to amend the postclosure plan at any time during the active life of the facility or during the postclosure care period.

(ii) The owner or operator must submit a written notification of or request for a permit modification to authorize a change in the approved postclosure plan whenever:

(A) Changes in operating plans or facility design affect the approved postclosure plan; or

(B) There is a change in the expected year of final closure, if applicable; or

(C) Events which occur during the active life of the facility, including partial and final closures, affect the approved postclosure plan.

(iii) The owner or operator must submit a written request for a permit modification at least sixty days prior to the proposed change in facility design or operation, or no later than sixty days after an unexpected event has occurred which has affected the postclosure plan. An owner or operator of a surface impoundment or waste pile that intends to remove all dangerous waste at closure and is not otherwise required to submit a contingent postclosure plan under WAC 173-303-650 or 173-303-660 must submit a postclosure plan to the department no later than ninety days after the date that the owner or operator or department determines that the dangerous waste management unit must be closed as a landfill, subject to the requirements of WAC 173-303-665. The department will approve, disapprove, or modify this plan in accordance with the procedures in WAC 173-303-800 through 173-303-840. The approved postclosure plan will become a permit condition.

(iv) The department may request modifications to the plan under the conditions described in (d)(ii) of this subsection. The owner or operator must submit the modified plan no later than sixty days after the department's request, or no later than ninety days if the unit is a surface impoundment or waste pile not previously required to prepare a contingent postclosure plan. Any modifications requested by the department will be approved, disapproved, or modified in

accordance with the procedures in WAC 173-303-800 through 173-303-840.

(9) Notice to local land authority. No later than the submission of the certification of closure of each dangerous waste disposal unit, the owner or operator of a disposal facility must submit to the local zoning authority or the authority with jurisdiction over local land use and to the department a survey plat indicating the location and dimensions of landfill cells or other dangerous waste disposal units with respect to permanently surveyed benchmarks. This plat must be prepared and certified by a professional land surveyor. The plat filed with the local zoning authority or the authority with jurisdiction over local land use must contain a note, prominently displayed, which states the owner's or operator's obligation to restrict disturbance of the dangerous waste disposal unit in accordance with the applicable requirements of this section. In addition, no later than sixty days after certification of closure of each dangerous waste disposal unit, the owner or operator must submit to the local zoning authority or the authority with jurisdiction over local land use and to the department, a record of the type, location, and quantity of dangerous wastes disposed of within each cell or other disposal unit of the facility. For wastes disposed of before November 19, 1980 (March 12, 1982, for facilities subject to this chapter but not subject to 40 CFR Part 264), the owner or operator must identify the type, location, and quantity of the dangerous wastes to the best of his knowledge and in accordance with any records he has kept.

(10) Notice in deed to property.

(a) No later than sixty days after certification of closure of each dangerous waste disposal unit, the owner or operator must submit to the local zoning authority, or the authority with jurisdiction over local land use, and to the department a record of the type, location, and quantity of dangerous wastes disposed of within each cell or other disposal unit of the facility. For hazardous wastes (as defined in WAC 173-303-040) disposed of before January 12, 1981, the owner or operator must identify the type, location, and quantity of the dangerous wastes to the best of his knowledge and in accordance with any records he has kept.

(b) Within sixty days of certification of closure of the first dangerous waste disposal unit and within sixty days of certification of closure of the last dangerous waste disposal unit, the owner or operator must:

(i) Record, in accordance with state law, a notation on the deed to the facility property, or on some other instrument which is normally examined during title search, that will in perpetuity notify any potential purchaser of the property that:

(A) The land has been used to manage dangerous wastes;

(B) Its use is restricted under this section; and

(C) The survey plat and record of the type, location, and quantity of dangerous wastes disposed of within each cell or other dangerous waste disposal unit of the facility required in subsection (9) of this section have been filed with the local zoning authority, or the authority with jurisdiction over local land use, and with the department; and

(ii) Submit a certification, signed by the owner or operator, that he has recorded the notation specified in (b)(i) of this subsection, including a copy of the document in which the notation has been placed, to the department.

(c) If the owner or operator or any subsequent owner of the land upon which a dangerous waste facility was located wishes to remove dangerous wastes and dangerous waste residues, the liner, if any, or contaminated soils, he must request a modification to the postclosure permit in accordance with the applicable requirements in WAC 173-303-800 through 173-303-840. The owner or operator must demonstrate that the removal of dangerous wastes will satisfy the criteria of subsection (7)(d) of this section. By removing dangerous waste, the owner or operator may become a generator of dangerous waste and must manage it in accordance with all applicable requirements of this chapter. If he is granted a permit modification or otherwise granted approval to conduct such removal activities, the owner or operator may request that the department approve either:

(i) The removal of the notation on the deed to the facility property or other instrument normally examined during title search; or

(ii) The addition of a notation to the deed or instrument indicating the removal of the dangerous waste.

(11) Certification of completion of postclosure care. No later than sixty days after completion of the established postclosure care period for each dangerous waste disposal unit, the owner or operator must submit to the department, by registered mail, a certification that the postclosure care period for the dangerous waste disposal unit was performed in accordance with the specifications in the approved postclosure plan. The certification must be signed by the owner or operator and an independent registered professional engineer. Documentation supporting the independent registered professional engineer's certification must be furnished to the department upon request until he releases the owner or operator from the financial assurance requirements for postclosure care under WAC 173-303-620(6).

AMENDATORY SECTION (Amending Order 94-30, filed 10/19/95, effective 11/19/95)

WAC 173-303-620 Financial requirements. (1) Applicability.

(a) The requirements of subsections (3), (4), (7), (8), (9), and (10) of this section, apply to owners and operators of all dangerous waste facilities, except as provided otherwise in this section.

(b) The requirements of subsections (5) and (6) of this section apply to owners and operators of:

(i) Dangerous waste disposal facilities;

(ii) Tank systems that are required under WAC 173-303-640(8) to meet the requirements of landfills;

(iii) Miscellaneous units as specified in WAC 173-303-680(4);

(iv) Waste piles and surface impoundments to the extent that WAC 173-303-650 and 173-303-660, respectively, require that such facilities comply with this section; and

(v) Containment buildings that are required under WAC 173-303-695 to meet the requirements for landfills.

(c) States and the federal government (~~and operators of state or federally owned facilities~~) are exempt from the requirements of this section. Operators of state or federally owned facilities are exempt from the requirements of this section, except subsections (3) and (5) of this section. Operators of facilities who are under contract with (but not

owned by) the state or federal government must meet all of the requirements of this section.

(2) Definitions. As used in this section, the following listed or referenced terms have the meanings given below:

(a) "Closure plan" means the plan for closure prepared in accordance with the requirements of WAC 173-303-610(3);

(b) "Current closure cost estimate" means the most recent of the estimates prepared in accordance with subsection (3) of this section;

(c) "Current postclosure cost estimate" means the most recent of the estimates prepared in accordance with subsection (5) of this section;

(d) "Parent corporation" means a corporation which directly owns at least fifty percent of the voting stock of the corporation which is the facility owner or operator; the latter corporation is deemed a "subsidiary" of the parent corporation;

(e) "Postclosure plan" means the plan for postclosure care prepared in accordance with the requirements of WAC 173-303-610 (7), (8), (9), and (10);

(f) "Regional administrator" means the department;

(g) "Hazardous waste" means dangerous waste; and

(h) The additional terms listed and defined in 40 CFR 264.141 (f), (g), and (h) are (~~adopted~~) incorporated by reference.

(3) Cost estimate for facility closure.

(a) The owner or operator must have a detailed written estimate, in current dollars, of the cost of closing the facility in accordance with the requirements in WAC 173-303-610 (2) through (6), and applicable closure requirements in WAC 173-303-630(10), 173-303-640(5), 173-303-650(6), 173-303-655(8), 173-303-660(9), 173-303-665(6), 173-303-670(8), 173-303-680 (2) through (4) and 173-303-695. The closure cost estimate:

(i) Must equal the cost of closure at the point in the facility's operating life when the extent and manner of its operation would make closure the most expensive, as indicated by its closure plan (see WAC 173-303-610 (3)(a));

(ii) Must be based on the costs to the owner or operator of hiring a third party to close the facility. A third party is a party who is neither a parent nor a subsidiary of the owner or operator. (See definition of parent corporation in subsection (2)(d) of this section.) The owner or operator may use costs for on-site disposal if he can demonstrate that on-site disposal capacity will exist at all times over the life of the facility;

(iii) May not incorporate any salvage value that may be realized with the sale of dangerous wastes, or nondangerous wastes if applicable under WAC 173-303-610 (4)(d), facility structures or equipment, land, or other assets associated with the facility at the time of partial or final closure; and

(iv) May not incorporate a zero cost for dangerous wastes, or nondangerous wastes if applicable under WAC 173-303-610 (4)(d), that might have economic value.

(b) During the active life of the facility, the owner or operator must revise the closure cost estimate no later than thirty days after the department has approved the request to modify the closure plan, if the change in the closure plan increases the cost of closure. The revised closure cost estimate must be adjusted for inflation as specified in (c)(i) and (ii) of this subsection.

(c) During the active life of the facility, the owner or operator must adjust the closure cost estimate for inflation within sixty days prior to the anniversary date of the establishment of the financial instrument(s) used to comply with this section. For owners and operators using the financial test or corporate guarantee, the closure cost estimate must be updated for inflation within thirty days after the close of the firm's fiscal year and before submission of updated information to the department as specified in subsection (4) of this section. The adjustment may be made by recalculating the maximum costs of closure in current dollars, or by using an inflation factor derived from the most recent *Implicit Price Deflator for Gross National Product or Gross Domestic Product* as published by the United States Department of Commerce in its survey of current business. The inflation factor is the result of dividing the latest published annual deflator by the deflator for the previous year.

(i) The first adjustment is made by multiplying the closure cost estimate by the inflation factor. The result is the adjusted closure cost estimate.

(ii) Subsequent adjustments are made by multiplying the latest adjusted closure cost estimate by the latest inflation factor.

(d) During the operating life of the facility, the owner or operator must keep at the facility the latest closure cost estimate prepared in accordance with (a) and (b) of this subsection, and, when this estimate has been adjusted in accordance with (c) of this subsection, the latest adjusted closure cost estimate.

(4) Financial assurance for facility closure.

(a) An owner or operator of a TSD facility must establish financial assurance for closure of the facility. The owner or operator must choose from the following options or combination of options:

(i) Closure trust fund;

(ii) Surety bond guaranteeing payment into a closure trust fund;

(iii) Surety bond guaranteeing performance of closure;

(iv) Closure letter of credit;

(v) Closure insurance; or

(vi) Financial test and corporate guarantee for closure.

(b) In satisfying the requirements of financial assurance for facility closure in this subsection, the owner or operator must meet all the requirements set forth in 40 CFR 264.143 which are incorporated by reference. If the facilities covered by the mechanism are in more than one state, identical evidence of financial assurance must be submitted to and maintained with the state agency regulating hazardous waste or with the appropriate regional administrator if the facility is located in an unauthorized state.

(5) Cost estimate for postclosure monitoring and maintenance.

(a) The owner or operator of a facility subject to postclosure monitoring or maintenance requirements must have a detailed written estimate, in current dollars, of the annual cost of postclosure monitoring and maintenance of the facility in accordance with the applicable postclosure regulations in WAC 173-303-610 (7) through (10), 173-303-650(6), 173-303-655(8), 173-303-660(9), 173-303-665(6), and 173-303-680(4). The postclosure cost estimate must be based on the costs to the owner or operator of hiring a third

party to conduct postclosure care activities. A third party is a party who is neither a parent nor a subsidiary of the owner or operator. (See definition of parent corporation in subsection (2)(d) of this section.) The postclosure cost estimate is calculated by multiplying the annual postclosure cost estimate by the number of years of postclosure care required by WAC 173-303-610.

(b) During the active life of the facility, the owner or operator must revise the postclosure cost estimate within thirty days after the department has approved the request to modify the postclosure plan, if the change in the postclosure plan increases the cost of postclosure care. The revised postclosure cost estimate must be adjusted for inflation as specified in (c)(i) and (ii) of this subsection.

(c) During the active life of the facility, the owner or operator must adjust the postclosure cost estimate for inflation within sixty days prior to the anniversary date of the establishment of the financial instrument(s) used to comply with subsection (6) of this section. For owners or operators using the financial test or corporate guarantee, the postclosure cost estimate must be updated for inflation within thirty days after the close of the firm's fiscal year and before the submission of updated information to the department as specified in subsection (6) of this section. The adjustment may be made by recalculating the postclosure cost estimate in current dollars or by using an inflation factor derived from the most recent *Implicit Price Deflator for Gross National Product or Gross Domestic Product* as published by the United States Department of Commerce in its Survey of Current Business. The inflation factor is the result of dividing the latest published annual deflator by the deflator for the previous year.

(i) The first adjustment is made by multiplying the postclosure cost estimate by the inflation factor. The result is the adjusted postclosure cost estimate.

(ii) Subsequent adjustments are made by multiplying the latest adjusted postclosure cost estimate by the latest inflation factor.

(d) During the operating life of the facility, the owner or operator must keep at the facility the latest postclosure cost estimate prepared in accordance with (a) and (b) of this subsection, and, when this estimate has been adjusted in accordance with (c) of this subsection, the latest adjusted postclosure cost estimate.

(6) Financial assurance for postclosure monitoring and maintenance.

(a) An owner or operator of a facility subject to postclosure monitoring or maintenance requirements must establish financial assurance for postclosure care in accordance with the approved postclosure care plan. He must choose from the following options or combination of options:

(i) Postclosure trust fund;

(ii) Surety bond guaranteeing payment into a postclosure trust fund;

(iii) Surety bond guaranteeing performance of postclosure care;

(iv) Postclosure letter of credit;

(v) Postclosure insurance; or

(vi) Financial test and corporate guarantee for postclosure care.

(b) In satisfying the requirements of financial assurance for facility postclosure care in this subsection, the owner or

operator must meet all the requirements set forth in 40 CFR 264.145 which are incorporated by reference. If the facilities covered by the mechanism are in more than one state, identical evidence of financial assurance must be submitted to and maintained with the state agency regulating hazardous waste or with the appropriate regional administrator if the facility is located in an unauthorized state.

(7) Use of a mechanism for financial assurance of both closure and postclosure care. An owner or operator may satisfy the requirements for financial assurance for both closure and postclosure care for one or more facilities by using a trust fund, surety bond, letter of credit, insurance, financial test, or corporate guarantee that meets the specifications for the mechanism in both 40 CFR 264.143 and 264.145 which are incorporated by reference. The amount of funds available through the mechanism must be no less than the sum of funds that would be available if a separate mechanism had been established and maintained for financial assurance of closure and of postclosure care.

(8) Liability requirements.

(a) An owner or operator of a TSD facility or a group of such facilities must demonstrate financial responsibility for bodily injury and property damages to third parties caused by sudden accidental occurrences arising from operations of the facility or group of facilities. The owner or operator must meet the requirements of 40 CFR 264.147(a) which is incorporated by reference.

(b) An owner or operator of a facility with a regulated unit or units (as defined in WAC 173-303-040) or a disposal miscellaneous unit or units used to manage dangerous waste or a group of such facilities must demonstrate financial responsibility for bodily injury and property damage to third parties caused by nonsudden accidental occurrences arising from operations of the facility or group of facilities. The owner or operator must meet the requirements of 40 CFR 264.147(b), 264.177 (f), (g), (h), (i), and (j) which are incorporated by reference.

(c) Request for variance. If an owner or operator can demonstrate to the satisfaction of the department that the levels of financial responsibility required by (a) or (b) of this subsection are not consistent with the degree and duration of risk associated with treatment, storage, or disposal at the facility or group of facilities, the owner or operator may obtain a variance from the department. The request for a variance must be submitted to the department as part of the application under WAC 173-303-806(4) for a facility that does not have a permit, or pursuant to the procedures for permit modification under WAC 173-303-830 for a facility that has a permit. If granted, the variance will take the form of an adjusted level of required liability coverage, such level to be based on the department's assessment of the degree and duration of risk associated with the ownership or operation of the facility or group of facilities. The department may require an owner or operator who requests a variance to provide such technical and engineering information as is deemed necessary by the department to determine a level of financial responsibility other than that required by (a) or (b) of this subsection. Any request for a variance for a permitted facility will be treated as a request for a permit modification under WAC 173-303-830.

(d) Adjustments by the department. If the department determines that the levels of financial responsibility required

by (a) or (b) of this subsection are not consistent with the degree and duration of risk associated with treatment, storage, or disposal at the facility or group of facilities, the department may adjust the level of financial responsibility required under (a) or (b) of this subsection as may be necessary to protect human health and the environment. This adjusted level will be based on the department's assessment of the degree and duration of risk associated with the ownership or operation of the facility or group of facilities. In addition, if the department determines that there is a significant risk to human health and the environment from nonsudden accidental occurrences resulting from the operations of a facility that has no regulated units (as defined in WAC 173-303-040), it may require that the owner or operator of the facility comply with (b) of this subsection. An owner or operator must furnish to the department within a reasonable time, any information which the department requests to determine whether cause exists for such adjustments of level or type of coverage. Any adjustments of level or type of coverage for a facility that has a permit will be treated as a permit modification under WAC 173-303-830.

(e) Period of coverage. An owner or operator must continuously provide liability coverage for a facility as required by this subsection until certifications of closure of the facility, as specified in WAC 173-303-610(6), are received by the department.

(f) The following subsections are incorporated by reference: 40 CFR section 260.147(f), Financial test for liability coverage, (g) Guarantee for liability coverage, (h) Letter of credit for liability coverage, (i) Surety bond for liability coverage, and (j) Trust fund for liability coverage.

(9) Incapacity of owners or operators, guarantor or financial institutions.

(a) An owner or operator must notify the department by certified mail of the commencement of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), United States Code, naming the owner or operator as debtor, within ten days after commencement of the proceeding. A guarantor of a corporate guarantee as specified in 40 CFR 264.143(f) and 264.145(f) must make such a notification if he is named as debtor, as required under the terms of the corporate guarantee (40 CFR 264.151(h)).

(b) An owner or operator who fulfills the requirements of 40 CFR 264.143, 264.145, or 264.147 (a) or (b) by obtaining a trust fund, surety bond, letter of credit, or insurance policy will be deemed to be without the required financial assurance or liability coverage in the event of bankruptcy of the trustee or issuing institution, or a suspension or revocation of the authority of the trustee institution to act as trustee or of the institution issuing the surety bond, letter of credit, or insurance policy to issue such instruments. The owner or operator must establish other financial assurance or liability coverage within sixty days after such an event.

(10) Wording of the instruments. The financial instruments required by this section must contain the wording specified by 40 CFR 264.151 which is incorporated by reference, except that:

(a) The words "regional administrator" and "environmental protection agency" must be replaced with the ((word

"department") words Washington state department of ecology;

(b) The words "hazardous waste" must be replaced with the words "dangerous waste"; ~~(and)~~

(c) Any other words specified by the department must be changed as necessary to assure financial responsibility of the facility in accordance with the requirements of this section; and

(d) Whenever 40 CFR 264.151 requires that owners and operators notify several regional administrators of their financial obligations, the owner or operator must notify both the department and all regional administrators of regions that are affected by the owner or operator's financial assurance mechanisms.

Copies of the financial instruments with the appropriate word changes will be available from the department by June 30, 1984.

AMENDATORY SECTION (Amending Order 94-30, filed 10/19/95, effective 11/19/95)

WAC 173-303-665 Landfills. (1) Applicability. The regulations in this section apply to owners and operators of facilities that dispose of dangerous waste in landfills, except as WAC 173-303-600 provides otherwise. No landfill will be permitted to dispose of EHW, except for the Hanford facility under WAC 173-303-700.

(2) Design and operating requirements.

(a) Any landfill that is not covered by (h) of this subsection must have a liner system for all portions of the landfill (except for an existing portion of a landfill). The liner system must have:

(i) A liner that is designed, constructed, and installed to prevent any migration of wastes out of the landfill to the adjacent subsurface soil or ground water or surface water at anytime during the active life (including the closure period) of the landfill. The liner must be constructed of materials that prevent wastes from passing into the liner during the active life of the facility. The owner or operator must submit an engineering report with his permit application under WAC 173-303-806(4) stating the basis for selecting the liner(s). The report must be certified by a licensed professional engineer. The liner must be:

(A) Constructed of materials that have appropriate chemical properties and sufficient strength and thickness to prevent failure due to pressure gradients (including static head and external hydrogeologic forces), physical contact with the waste or leachate to which they are exposed, climatic conditions, the stress of installation, and the stress of daily operation;

(B) Placed upon a foundation or base capable of providing support to the liner and resistance to pressure gradients above and below the liner to prevent failure of the liner due to settlement, compression, or uplift; and

(C) Installed to cover all surrounding earth likely to be in contact with the waste or leachate; and

(ii) A leachate collection and removal system immediately above the liner that is designed, constructed, maintained, and operated to collect and remove leachate from the landfill. The department will specify design and operating conditions in the permit to ensure that the leachate depth

over the liner does not exceed 30 cm (one foot). The leachate collection and removal system must be:

(A) Constructed of materials that are:

(I) Chemically resistant to the waste managed in the landfill and the leachate expected to be generated; and

(II) Of sufficient strength and thickness to prevent failure under the pressures exerted by overlying wastes, waste cover materials, and by any equipment used at the landfill; and

(B) Designed and operated to function without clogging through the scheduled closure of the landfill.

(b) The owner or operator will be exempted from the requirements of (a) of this subsection, if the department finds, based on a demonstration by the owner or operator, that alternative design and operating practices, together with location characteristics, will prevent the migration of any dangerous constituents into the ground water or surface water at any future time. In deciding whether to grant an exemption, the department will consider:

(i) The nature and quantity of the wastes;

(ii) The proposed alternate design and operation;

(iii) The hydrogeologic setting of the facility, including the attenuative capacity and thickness of the liners and soils present between the landfill and ground water or surface water; and

(iv) All other factors which would influence the quality and mobility of the leachate produced and the potential for it to migrate to ground water or surface water.

(c) The owner or operator must design, construct, operate, and maintain a run-on control system capable of preventing flow onto the active portion of the landfill during peak discharge from at least a twenty-five-year storm.

(d) The owner or operator must design, construct, operate, and maintain a run-off management system to collect and control at least the water volume resulting from a twenty-four-hour, twenty-five-year storm.

(e) Collection and holding facilities (e.g., tanks or basins) associated with run-on and run-off control systems must be emptied or otherwise managed expeditiously and in accordance with this chapter after storms to maintain design capacity of the system.

(f) If the landfill contains any particulate matter which may be subject to wind dispersal, the owner or operator must cover or otherwise manage the landfill to control wind dispersal.

(g) The department will specify in the permit all design and operating practices that are necessary to ensure that the requirements of this subsection are satisfied.

(h) The owner or operator of each new landfill unit on which construction commences after January 29, 1992, each lateral expansion of a landfill unit on which construction commences after July 29, 1992, and each replacement of an existing landfill unit that commences reuse after July 29, 1992, must install two or more liners and a leachate collection and removal system above and between such liners. "Construction commences" is as defined in WAC 173-303-040 under "existing facility."

(i) The liner system must:

(A) Include a top liner designed and constructed of materials (e.g., a geomembrane) to prevent the migration of dangerous constituents into such liner during the active life and post-closure care period; and

(B) Include a composite bottom liner, consisting of at least two components. The upper component must be designed and constructed of materials (e.g., a geomembrane) to prevent the migration of dangerous constituents into this component during the active life and post-closure care period. The lower component must be designed and constructed of materials to minimize the migration of dangerous constituents if a breach in the upper component were to occur. The lower component must be constructed of at least 3 feet (91 cm) of compacted soil material with a hydraulic conductivity of no more than 1×10^{-7} cm/sec.

(C) The liners must comply with (a)(i)(A), (B), and (C) of this subsection.

(ii) The leachate collection and removal system immediately above the top liner must be designed, constructed, operated, and maintained to collect and remove leachate from the landfill during the active life and post-closure care period. The department will specify design and operating conditions in the permit to ensure that the leachate depth over the liner does not exceed twelve inches (30.5 cm). The leachate collection and removal system must comply with (h)(iii) and (iv) of this subsection.

(iii) The leachate collection and removal system between the liners, and immediately above the bottom composite liner in the case of multiple leachate collection and removal systems, is also a leak detection system. This leak detection system must be capable of detecting, collecting, and removing leaks of dangerous constituents at the earliest practicable time through all areas of the top liner likely to be exposed to waste or leachate during the active life and post-closure care period. The requirements for a leak detection system in this subsection are satisfied by installation of a system that is, at a minimum:

(A) Constructed with a bottom slope of one percent or more;

(B) Constructed of granular drainage materials with a hydraulic conductivity of 1×10^{-2} cm/sec or more and a thickness of 12 inches (30.5 cm) or more; or constructed of synthetic or geonet drainage materials with a transmissivity of 3×10^{-5} m²/sec or more;

(C) Constructed of materials that are chemically resistant to the waste managed in the landfill and the leachate expected to be generated, and of sufficient strength and thickness to prevent collapse under the pressures exerted by overlying wastes, waste cover materials, and equipment used at the landfill;

(D) Designed and operated to minimize clogging during the active life and post-closure care period; and

(E) Constructed with sumps and liquid removal methods (e.g., pumps) of sufficient size to collect and remove liquids from the sump and prevent liquids from backing up into the drainage layer. Each unit must have its own sump(s). The design of each sump and removal system must provide a method for measuring and recording the volume of liquids present in the sump and of liquids removed.

(iv) The owner or operator will collect and remove pumpable liquids in the leak detection system sumps to minimize the head on the bottom liner.

(v) The owner or operator of a leak detection system that is not located completely above the seasonal high water table must demonstrate that the operation of the leak

detection system will not be adversely affected by the presence of ground water.

(j) The department may approve alternative design or operating practices to those specified in (h) of this subsection if the owner or operator demonstrates to the department that such design and operating practices, together with location characteristics:

(i) Will prevent the migration of any dangerous constituent into the ground water or surface water at least as effectively as the liners and leachate collection and removal systems specified in (c) of this subsection; and

(ii) Will allow detection of leaks of dangerous constituents through the top liner at least as effectively.

(k) The double liner requirement set forth in (h) of this subsection may be waived by the department for any monofill, if:

(i) The monofill contains only dangerous wastes from foundry furnace emission controls or metal casting molding sand, and such wastes do not contain constituents which would render the wastes dangerous for reasons other than the Toxicity Characteristic in WAC 173-303-090(8), with dangerous waste numbers D004 through D017 or the toxicity criteria at WAC 173-303-100(5); and

(ii)(A) The monofill has at least one liner for which there is no evidence that such liner is leaking;

(B) The monofill is located more than one-quarter mile from an underground source of drinking water (as that term is defined in 40 CFR section 144.3); and

(C) The monofill is in compliance with generally applicable ground water monitoring requirements for facilities with permits under RCRA 3005(c); or

(D) The owner or operator demonstrates that the monofill is located, designed and operated so as to assure that there will be no migration of any dangerous constituent into ground water or surface water at any future time.

(l) The owner or operator of any replacement landfill unit is exempt from (h) of this subsection if:

(i) The existing unit was constructed in compliance with the design standards of section 3004 (o)(1)(A)(i) and (o)(5) of the Resource Conservation and Recovery Act; and

(ii) There is no reason to believe that the liner is not functioning as designed.

(3) Reserve.

(4) Monitoring and inspection.

(a) During construction or installation, liners (except in the case of existing portions of landfills exempt from subsection (2)(a) of this section), and cover systems (e.g., membranes, sheets, or coatings) must be inspected for uniformity, damage, and imperfections (e.g., holes, cracks, thin spots, or foreign materials). Immediately after construction or installation:

(i) Synthetic liners and covers must be inspected to ensure tight seams and joints and the absence of tears, punctures, or blisters; and

(ii) Soil-based and admixed liners and covers must be inspected for imperfections including lenses, cracks, channels, root holes, or other structural nonuniformities that may cause an increase in the permeability of the liner or cover.

(b) While a landfill is in operation, it must be inspected weekly and after storms to detect evidence of any of the following:

(i) Deterioration, malfunctions, or improper operation of run-on and run-off control systems;

(ii) Proper functioning of wind dispersal control systems; and

(iii) The presence of leachate in and proper functioning of leachate collection and removal systems.

(c)(i) An owner or operator required to have a leak detection system under subsection (2)(h) or (j) of this section must record the amount of liquids removed from each leak detection system sump at least once each week during the active life and closure period.

(ii) After the final cover is installed, the amount of liquids removed from each leak detection system sump must be recorded at least monthly. If the liquid level in the sump stays below the pump operating level for two consecutive months, the amount of liquids in the sumps must be recorded at least quarterly. If the liquid level in the sump stays below the pump operating level for two consecutive quarters, the amount of liquids in the sumps must be recorded at least semiannually. If at any time during the post-closure care period the pump operating level is exceeded at units on quarterly or semiannual recording schedules, the owner or operator must return to monthly recording of amounts of liquids removed from each sump until the liquid level again stays below the pump operating level for two consecutive months.

(iii) "Pump operating level" is a liquid level proposed by the owner or operator and approved by the department based on pump activation level, sump dimensions, and level that avoids backup into the drainage layer and minimizes head in the sump.

(5) Surveying and recordkeeping. The owner or operator of a landfill must maintain the following items in the operating record required under WAC 173-303-380:

(a) On a map, the exact location and dimensions, including depth, of each cell with respect to permanently surveyed benchmarks; and

(b) The contents of each cell and the approximate location of each dangerous waste type within each cell.

(6) Closure and postclosure care.

(a) At final closure of the landfill or upon closure of any cell, the owner or operator must cover the landfill or cell with a final cover designed and constructed to:

(i) Provide long-term minimization of migration of liquids through the closed landfill;

(ii) Function with minimum maintenance;

(iii) Promote drainage and minimize erosion or abrasion of the cover;

(iv) Accommodate settling and subsidence so that the cover's integrity is maintained; and

(v) Have a permeability less than or equal to the permeability of any bottom liner system or natural subsoils present.

(b) After final closure, the owner or operator must comply with all postclosure requirements contained in WAC 173-303-610 (7), (8), (9), and (10) including maintenance and monitoring throughout the postclosure care period. The owner or operator must:

(i) Maintain the integrity and effectiveness of the final cover, including making repairs to the cap as necessary to correct the effects of settling, subsidence, erosion, or other events;

(ii) Maintain and monitor the leak detection system in accordance with subsections (2)(h) and (4)(c) of this section, where such a system is present between double liner systems;

(iii) Continue to operate the leachate collection and removal system until leachate is no longer detected;

(iv) Maintain and monitor the ground water monitoring system and comply with all other applicable requirements of WAC 173-303-645;

(v) Prevent run-on and run-off from eroding or otherwise damaging the final cover; and

(vi) Protect and maintain surveyed benchmarks used in complying with subsection (5) of this section.

(c) Reserve.

(7) Special requirements for incompatible wastes. Incompatible wastes, or incompatible wastes and materials must not be placed in the same landfill cell, unless WAC 173-303-395 (1)(b) is complied with.

(8) Action leakage rate.

(a) The department must approve an action leakage rate for surface impoundment units subject to subsection (2)(h) or (j) of this section. The action leakage rate is the maximum design flow rate that the leak detection system (LDS) can remove without the fluid head on the bottom liner exceeding 1 foot. The action leakage rate must include an adequate safety margin to allow for uncertainties in the design (e.g., slope, hydraulic conductivity, thickness of drainage material), construction, operation, and location of the LDS, waste and leachate characteristics, likelihood and amounts of other sources of liquids in the LDS, and proposed response actions (e.g., the action leakage rate must consider decreases in the flow capacity of the system over time resulting from siltation and clogging, rib layover and creep of synthetic components of the system, overburden pressures, etc.).

(b) To determine if the action leakage rate has been exceeded, the owner or operator must convert the weekly or monthly flow rate from the monitoring data obtained under subsection (2)(h) of this section, to an average daily flow rate (gallons per acre per day) for each sump. Unless the department approves a different calculation, the average daily flow rate for each sump must be calculated weekly during the active life and closure period, and monthly during the post-closure care period when monthly monitoring is required under subsection (9) of this section.

(9) Response actions.

(a) The owner or operator of landfill units subject to subsection (2)(h) or (j) of this section must have an approved response action plan before receipt of waste. The response action plan must set forth the actions to be taken if the action leakage rate has been exceeded. At a minimum, the response action plan must describe the actions specified in (b) of this subsection.

(b) If the flow rate into the leak detection system exceeds the action leakage rate for any sump, the owner or operator must:

(i) Notify the department in writing of the exceedance within seven days of the determination;

(ii) Submit a preliminary written assessment to the department within fourteen days of the determination, as to the amount of liquids, likely sources of liquids, possible

location, size, and cause of any leaks, and short-term actions taken and planned;

(iii) Determine to the extent practicable the location, size, and cause of any leak;

(iv) Determine whether waste receipt should cease or be curtailed, whether any waste should be removed from the unit for inspection, repairs, or controls, and whether or not the unit should be closed;

(v) Determine any other short-term and long-term actions to be taken to mitigate or stop any leaks; and

(vi) Within thirty days after the notification that the action leakage rate has been exceeded, submit to the department the results of the analyses specified in (b)(iii), (iv), and (v) of this subsection, the results of actions taken, and actions planned. Monthly thereafter, as long as the flow rate in the leak detection system exceeds the action leakage rate, the owner or operator must submit to the department a report summarizing the results of any remedial actions taken and actions planned.

(c) To make the leak and/or remediation determinations in (b)(iii), (iv), and (v) of this subsection, the owner or operator must:

(i) Assess the source of liquids and amounts of liquids by source;

(ii) Conduct a fingerprint, dangerous constituent, or other analyses of the liquids in the leak detection system to identify the source of liquids and possible location of any leaks, and the hazard and mobility of the liquid; and

(iii) Assess the seriousness of any leaks in terms of potential for escaping into the environment; or

(iv) Document why such assessments are not needed.

(10) Special requirements for ignitable or reactive waste.

(a) Except as provided in subsection (8)(b) of this section, and in WAC 173-303-161, ignitable or reactive waste must not be placed in a landfill, unless the waste and landfill meet all applicable requirements for owners and operators of dangerous waste treatment, storage and disposal facilities contained in this chapter, and:

(i) The resulting waste, mixture, or dissolution of material no longer meets the definition of ignitable or reactive waste under WAC 173-303-090 (5) or (7); and

(ii) WAC 173-303-395(1) is complied with.

(b) Except for prohibited wastes which remain subject to treatment standards in WAC 173-303-140 (2)(a), ignitable wastes in containers may be landfilled without meeting the requirements of (a) of this subsection, provided that the wastes are disposed of in such a way that they are protected from any material or conditions which may cause them to ignite. At a minimum, ignitable wastes must be disposed of in nonleaking containers which are carefully handled and placed so as to avoid heat, sparks, rupture, or any other condition that might cause ignition of the wastes; must be covered daily with soil or other noncombustible material to minimize the potential for ignition of the wastes; and must not be disposed of in cells that contain or will contain other wastes which may generate heat sufficient to cause ignition of the waste.

(11) Special requirements for hazardous wastes F020, F021, F022, F023, F026, and F027.

(a) Hazardous wastes F020, F021, F022, F023, F026, and F027 must not be placed in landfills unless the owner or operator operates the landfill in accord with a management

plan for these wastes that is approved by the department pursuant to the standards set out in this subsection, and in accord with all other applicable requirements of this section. The factors to be considered are:

(i) The volume, physical, and chemical characteristics of the wastes, including their potential to migrate through the soil or to volatilize or escape into the atmosphere;

(ii) The attenuative properties of underlying and surrounding soils or other materials;

(iii) The mobilizing properties of other materials co-disposed with these wastes; and

(iv) The effectiveness of additional treatment, design, or monitoring requirements.

(b) The department may determine that additional design, operating, and monitoring requirements are necessary for landfills managing hazardous wastes F020, F021, F022, F023, F026, and F027 in order to reduce the possibility of migration of these wastes to ground water, surface water, or air so as to protect human health and the environment.

(12) Special requirements for containers. Unless they are very small, such as an ampule, containers must be either:

(a) At least ninety percent full when placed in the landfill; or

(b) Crushed, shredded, or similarly reduced in volume to the maximum practical extent before burial in the landfill.

AMENDATORY SECTION (Amending Order 94-30, filed 10/19/95, effective 11/19/95)

WAC 173-303-675 Drip pads. (1) Applicability.

(a) The requirements of this section apply to owners and operators of facilities that use new or existing drip pads to convey treated wood drippage, precipitation, and/or surface water run-off to an associated collection system. Existing drip pads are those constructed before December 6, 1990, and those for which the owner or operator has a design and has entered into binding financial or other agreements for construction prior to December 6, 1990. All other drip pads are new drip pads. The requirement in subsection (4)(b)(iii) of this section to install a leak collection system applies only to those drip pads that are constructed after December 24, 1992, except for those constructed after December 24, 1992, for which the owner or operator has a design and has entered into binding financial or other agreements for construction prior to December 24, 1992.

(b) The owner or operator of any drip pad that is inside or under a structure that provides protection from precipitation so that neither run-off nor run-on is generated is not subject to regulation under subsection ~~((3))~~ (4)(e) or (f) of this section, as appropriate.

(c) The requirements of this section are not applicable to the management of infrequent and incidental drippage in storage yards provided that: The owner or operator maintains and complies with a written contingency plan that describes how the owner or operator will respond immediately to the discharge of such infrequent and incidental drippage. At a minimum, the contingency plan must describe how the owner or operator will do the following:

(i) Clean up the drippage;

(ii) Document the cleanup of the drippage;

(iii) Retain documents regarding cleanup for three years; and

(iv) Manage the contaminated media in a manner consistent with federal regulations.

(2) Assessment of existing drip pad integrity.

(a) For each existing drip pad as defined in subsection (1) of this section, the owner or operator must evaluate the drip pad and determine that it meets all of the requirements of this section, except the requirements for liners and leak detection systems of subsection (4)(b) of this section. No later than the effective date of this rule, the owner or operator must obtain and keep on file at the facility a written assessment of the drip pad, reviewed and certified by an independent, qualified registered professional engineer that attests to the results of the evaluation. The assessment must be reviewed, updated and recertified annually until all upgrades, repairs, or modifications necessary to achieve compliance with all of the standards of subsection (4) of this section are complete. The evaluation must document the extent to which the drip pad meets each of the design and operating standards of subsection (4) of this section, except the standards for liners and leak detection systems, specified in subsection (4)(b) of this section.

(b) The owner or operator must develop a written plan for upgrading, repairing, and modifying the drip pad to meet the requirements of subsection (4)(b) of this section, and submit the plan to the department no later than two years before the date that all repairs, upgrades, and modifications are complete. This written plan must describe all changes to be made to the drip pad in sufficient detail to document compliance with all the requirements of subsection (4) of this section. The plan must be reviewed and certified by an independent qualified registered professional engineer.

(c) Upon completion of all upgrades, repairs, and modifications, the owner or operator must submit to the department, the as-built drawings for the drip pad together with a certification by an independent qualified registered professional engineer attesting that the drip pad conforms to the drawings.

(d) If the drip pad is found to be leaking or unfit for use, the owner or operator must comply with the provisions of subsection (4)(m) of this section or close the drip pad in accordance with subsection (6) of this section.

(3) Design and installation of new drip pads.

Owners and operators of new drip pads must ensure that the pads are designed, installed, and operated in accordance with one of the following:

(a) All of the requirements of subsections (4) of this section (except subsection (4)(a)(iv)), (5) and (6) of this section; or

(b) All of the requirements of subsections (4) of this section (except subsection (4)(b)), (5) and (6) of this section.

(4) Design and operating requirements.

(a) Drip pads must:

(i) Be constructed of nonearthen materials, excluding wood and nonstructurally supported asphalt;

(ii) Be sloped to free-drain treated wood drippage, rain and other waters, or solutions of drippage and water or other wastes to the associated collection system;

(iii) Have a curb or berm around the perimeter;

(iv)(A) Have a hydraulic conductivity of less than or equal to 1×10^{-7} centimeters per second, e.g., existing concrete drip pads must be sealed, coated, or covered with a surface material with a hydraulic conductivity of less than

or equal to 1×10^{-7} centimeters per second such that the entire surface where drippage occurs or may run across is capable of containing such drippage and mixtures of drippage and precipitation, materials, or other wastes while being routed to an associated collection system. This surface material must be maintained free of cracks and gaps that could adversely affect its hydraulic conductivity, and the material must be chemically compatible with the preservatives that contact the drip pad. The requirements of this provision apply only to existing drip pads and those drip pads for which the owner or operator elects to comply with subsection (3)(a) of this section instead of subsection (3)(b) of this section.

(B) The owner or operator must obtain and keep on file at the facility a written assessment of the drip pad, reviewed and certified by an independent, qualified registered professional engineer that attests to the results of the evaluation. The assessment must be reviewed, updated and recertified annually. The evaluation must document the extent to which the drip pad meets the design and operating standards of this subsection, except for (b) of this subsection.

(v) Be of sufficient structural strength and thickness to prevent failure due to physical contact, climatic conditions, the stress of daily operations, e.g., variable and moving loads such as vehicle traffic, movement of wood, etc.

Note: The department will generally consider applicable standards established by professional organizations generally recognized by the industry such as the American Concrete Institute (ACI) or the American Society of Testing and Materials (ASTM) in judging the structural integrity requirement of this subsection.

(b) If an owner/operator elects to comply with subsection (3)(b) of this section instead of subsection (3)(a) of this section, the drip pad must have:

(i) A synthetic liner installed below the drip pad that is designed, constructed, and installed to prevent leakage from the drip pad into the adjacent subsurface soil or ground water or surface water at any time during the active life (including the closure period) of the drip pad. The liner must be constructed of materials that will prevent waste from being absorbed into the liner and to prevent releases into the adjacent subsurface soil or ground water or surface water during the active life of the facility. The liner must be:

(A) Constructed of materials that have appropriate chemical properties and sufficient strength and thickness to prevent failure due to pressure gradients (including static head and external hydrogeologic forces), physical contact with the waste or drip pad leakage to which they are exposed, climatic conditions, the stress of installation, and the stress of daily operation (including stresses from vehicular traffic on the drip pad);

(B) Placed upon a foundation or base capable of providing support to the liner and resistance to pressure gradients above and below the liner to prevent failure of the liner due to settlement, compression or uplift; and

(C) Installed to cover all surrounding earth that could come in contact with the waste or leakage; and

(ii) A leakage detection system immediately above the liner that is designed, constructed, maintained and operated to detect leakage from the drip pad. The leakage detection system must be:

(A) Constructed of materials that are:

(I) Chemically resistant to the waste managed in the drip pad and the leakage that might be generated; and

(II) Of sufficient strength and thickness to prevent collapse under the pressures exerted by overlying materials and by any equipment used at the drip pad;

(B) Designed and operated to function without clogging through the scheduled closure of the drip pad; and

(C) Designed so that it will detect the failure of the drip pad or the presence of a release of hazardous waste or accumulated liquid at the earliest practicable time.

(iii) A leakage collection system immediately above the liner that is designed, constructed, maintained and operated to collect leakage from the drip pad such that it can be removed from below the drip pad. The date, time, and quantity of any leakage collected in this system and removed must be documented in the operating log.

(c) Drip pads must be maintained such that they remain free of cracks, gaps, corrosion, or other deterioration that could cause hazardous waste to be released from the drip pad.

Note: See subsection (4)(m) of this section for remedial action required if deterioration or leakage is detected.

(d) The drip pad and associated collection system must be designed and operated to convey, drain, and collect liquid resulting from drippage or precipitation in order to prevent run-off.

(e) Unless protected by a structure, as described in subsection (1)(b) of this section, the owner or operator must design, construct, operate and maintain a run-on control system capable of preventing flow onto the drip pad during peak discharge from at least a twenty-four-hour, twenty-five-year storm, unless the system has sufficient excess capacity to contain any run-off that might enter the system.

(f) Unless protected by a structure or cover as described in subsection (1)(b) of this section, the owner or operator must design, construct, operate and maintain a run-off management system to collect and control at least the water volume resulting from a twenty-four-hour, twenty-five-year storm.

(g) The drip pad must be evaluated to determine that it meets the requirements of (a) through (f) of this subsection and the owner or operator must obtain a statement from an independent, qualified registered professional engineer certifying that the drip pad design meets the requirements of this section.

(h) Drippage and accumulated precipitation must be removed from the associated collection system as necessary to prevent overflow onto the drip pad.

(i) The drip pad surface must be cleaned thoroughly in a manner and frequency such that accumulated residues of hazardous waste or other materials are removed, with residues being properly managed as hazardous waste, so as to allow weekly inspections of the entire drip pad surface without interference or hindrance from accumulated residues of hazardous waste or other materials on the drip pad. The owner or operator must document the date and time of each cleaning and the cleaning procedure used in the facility's operating log. The owner/operator must determine if the residues are dangerous under WAC 173-303-070 and, if so, must manage them under this chapter.

(j) Drip pads must be operated and maintained in a manner to minimize tracking of hazardous waste or hazardous waste constituents off the drip pad as a result of activities by personnel or equipment.

(k) After being removed from the treatment vessel, treated wood from pressure and nonpressure processes must be held on the drip pad until drippage has ceased. The owner or operator must maintain records sufficient to document that all treated wood is held on the drip pad following treatment in accordance with this requirement.

(l) Collection and holding units associated with run-on and run-off control systems must be emptied or otherwise managed as soon as possible after storms to maintain design capacity of the system.

(m) Throughout the active life of the drip pad and as specified in the permit, if the owner or operator detects a condition that may have caused or has caused a release of hazardous waste, the condition must be repaired within a reasonably prompt period of time following discovery, in accordance with the following procedures:

(i) Upon detection of a condition that may have caused or has caused a release of hazardous waste (e.g., upon detection of leakage in the leak detection system), the owner or operator must:

(A) Enter a record of the discovery in the facility operating log;

(B) Immediately remove the portion of the drip pad affected by the condition from service;

(C) Determine what steps must be taken to repair the drip pad and clean up any leakage from below the drip pad, and establish a schedule for accomplishing the repairs;

(D) Within twenty-four hours after discovery of the condition, notify the department of the condition and, within ten working days, provide written notice to the department with a description of the steps that will be taken to repair the drip pad and clean up any leakage, and the schedule for accomplishing this work.

(ii) The department will review the information submitted, make a determination regarding whether the pad must be removed from service completely or partially until repairs and clean up are complete and notify the owner or operator of the determination and the underlying rationale in writing.

(iii) Upon completing all repairs and clean up, the owner or operator must notify the department in writing and provide a certification signed by an independent, qualified registered professional engineer, that the repairs and clean up have been completed according to the written plan submitted in accordance with (m)(i)(D) of this subsection.

(n) Should a permit be necessary, the department will specify in the permit all design and operating practices that are necessary to ensure that the requirements of this section are satisfied.

(o) The owner or operator must maintain, as part of the facility operating log, documentation of past operating and waste handling practices. This must include identification of preservative formulations used in the past, a description of drippage management practices, and a description of treated wood storage and handling practices.

(5) Inspections.

(a) During construction or installation, liners and cover systems (e.g., membranes, sheets, or coatings) must be inspected for uniformity, damage and imperfections (e.g.,

holes, cracks, thin spots, or foreign materials). Immediately after construction or installation, liners must be inspected and certified as meeting the requirements of subsection (4) of this section by an independent qualified, registered professional engineer. This certification must be maintained at the facility as part of the facility operating record. After installation, liners and covers must be inspected to ensure tight seams and joints and the absence of tears, punctures, or blisters.

(b) While a drip pad is in operation, it must be inspected weekly and after storms to detect evidence of any of the following:

- (i) Deterioration, malfunctions or improper operation of run-on and run-off control systems;
- (ii) The presence of leakage in and proper functioning of leak detection system;
- (iii) Deterioration or cracking of the drip pad surface.

Note: See subsection (4)(m) of this section for remedial action required if deterioration or leakage is detected.

(6) Closure.

(a) At closure, the owner or operator must remove or decontaminate all waste residues, contaminated containment system components (pad, liners, etc.), contaminated subsoils, and structures and equipment contaminated with waste and leakage, and manage them as hazardous waste.

(b) If, after removing or decontaminating all residues and making all reasonable efforts to effect removal or decontamination of contaminated components, subsoils, structures, and equipment as required in (a) of this subsection, the owner or operator finds that not all contaminated subsoils can be practicably removed or decontaminated, he must close the facility and perform post-closure care in accordance with closure and post-closure care requirements that apply to landfills (WAC 173-303-665(6)). For permitted units, the requirement to have a permit continues throughout the post-closure period. In addition, for the purpose of closure, post-closure, and financial responsibility, such a drip pad is then considered to be landfill, and the owner or operator must meet all of the requirements for landfills specified in WAC 173-303-610 and 173-303-620.

(c)(i) The owner or operator of an existing drip pad, as defined in subsection (1) of this section, that does not comply with the liner requirements of subsection (4)(b)(i) of this section must:

(A) Include in the closure plan for the drip pad under WAC 173-303-610(3), both a plan for complying with (a) of this subsection and a contingent plan for complying with (b) of this subsection in case not all contaminated subsoils can be practicably removed at closure; and

(B) Prepare a contingent post-closure plan under WAC 173-303-610(8) for complying with (b) of this subsection in case not all contaminated subsoils can be practicably removed at closure.

(ii) The cost estimates calculated under WAC 173-303-610 and 173-303-620 for closure and post-closure care of a drip pad subject to this subsection must include the cost of complying with the contingent closure plan and the contingent post-closure plan, but are not required to include the cost of expected closure under (a) of this subsection.

AMENDATORY SECTION (Amending Order 94-30, filed 10/19/95, effective 11/19/95)

WAC 173-303-800 Permit requirements for dangerous waste management facilities. (1) The purpose of WAC 173-303-800 through 173-303-840 is to establish the requirements for permits which will allow a dangerous waste facility to operate without endangering the public health and the environment.

(2) The owner/operator of a dangerous waste facility that transfers, treats, stores, or disposes (TSD) or recycles dangerous waste must, when required by this chapter, obtain a permit in accordance with WAC 173-303-800 through 173-303-840 covering the active life, closure period, ground water protection compliance period, and for any regulated unit (as defined in WAC 173-303-040) or for any facility which at closure does not meet the removal or decontamination limits of WAC 173-303-610 (2)(b), post-closure care period, unless they demonstrate closure by removal or decontamination as provided under WAC 173-303-800 (9) and (10). If a post-closure permit is required, the permit must address applicable ground water monitoring, unsaturated zone monitoring, corrective action, and post-closure care requirements of this chapter. The denial of a permit for the active life of a dangerous waste management facility or unit does not affect the requirement to obtain a post-closure permit under this section.

(3) TSD facility permits will be granted only if the objectives of the siting and performance standards set forth in WAC 173-303-282 and 173-303-283 are met.

(4) Permits will be issued according to the requirements of all applicable TSD facility standards.

(5) The owner/operator of a TSD facility is responsible for obtaining all other applicable federal, state, and local permits authorizing the development and operation of the TSD facility.

(6) The terms used in regard to permits which are not defined in WAC 173-303-040 have the same meanings as set forth in 40 CFR 270.2.

(7) Exemptions.

(a) A permit for an on-site cleanup action may be exempted as provided in a consent decree or order signed by the department and issued pursuant to chapter 70.105D RCW.

(b) A permit is not required for an on-site cleanup action performed by the department pursuant to chapter 70.105D RCW.

(c) Further exemptions.

(i) A person is not required to obtain a dangerous waste permit for treatment or containment activities taken during immediate response to any of the following situations:

(A) A discharge of a dangerous waste;

(B) An imminent and substantial threat of a discharge of dangerous waste;

(ii) Any person who continues or initiates dangerous waste treatment or containment activities after the immediate response is over is subject to all applicable requirements of this chapter for those activities.

(iii) Universal waste handlers and universal waste transporters (as defined in WAC 173-303-040) handling the wastes listed below are not required to obtain a dangerous waste permit. These handlers are subject to regulation under

WAC 173-303-573, when handling the below listed universal wastes.

(A) Batteries as described in WAC 173-303-573(2); and

(B) Thermostats as described in WAC 173-303-573(3).

(8) Each permit issued under this chapter will contain terms and conditions as the department determines necessary to protect human health and the environment.

(9) Closure by removal. Owners/operators of surface impoundments, land treatment units, and waste piles closing by removal or decontamination under 40 CFR Part 265 standards as referenced by WAC 173-303-400 must obtain a post-closure permit unless they can demonstrate to the department that the closure met the standards for closure by removal or decontamination in WAC 173-303-650(6), 173-303-655(8), or 173-303-660(9), as appropriate, and such removal or decontamination must assure that the levels of dangerous waste or dangerous waste constituents or residues do not exceed standards for closure at 40 CFR Part 264.111, as appropriate. The demonstration may be made in the following ways:

(a) If the owner/operator has submitted a Part B application for a post-closure permit, the owner/operator may request a determination, based on information contained in the application, that 40 CFR Part 264.111 standards for closure by removal were met. If the department believes that 40 CFR Part 264.111 standards were met, the department will notify the public of this proposed decision, allow for public comment, and reach a final determination according to the procedures in subsection (10) of this section.

(b) If the owner/operator has not submitted a Part B application for a post-closure permit, the owner/operator may petition the department for a determination that a post-closure permit is not required because the closure met the applicable 40 CFR Part 264.111 closure standards.

(i) The petition must include data demonstrating that standards for closure by removal or decontamination were met, or it must demonstrate that the unit closed under chapter 173-303 WAC requirements that met or exceeded the applicable 40 CFR Part 264.111 closure-by-removal standard.

(ii) The department will approve or deny the petition according to the procedures outline in subsection (10) of this section.

(10) Procedures for closure equivalency determination.

(a) If a facility owner/operator seeks an equivalency demonstration under subsection (9) of this section, the department will provide the public, through a newspaper notice, the opportunity to submit written comments on the information submitted by the owner/operator within thirty days from the date of the notice. The department will also, in response to a request or at the discretion of the department, hold a public hearing whenever such a hearing might clarify one or more issues concerning the equivalence of the 40 CFR Part 265 closure, as referenced by WAC 173-303-400, to a 40 CFR Part 264.111 closure. The department will give public notice of the hearing at least thirty days before it occurs. (Public notice of the hearing may be given at the same time as notice of the opportunity for the public to submit written comments, and the two notices may be combined.)

(b) The department will determine whether the 40 CFR Part 265 closure met 40 CFR Part 264.111 closure by

removal or decontamination requirements within ninety days of its receipt. If the department finds that the closure did not meet the applicable 40 CFR Part 264.111 standards, the department will provide the owner/operator with a written statement of the reasons why the closure failed to meet 40 CFR Part 264.111 standards. The owner/operator may submit additional information in support of an equivalency demonstration within thirty days after receiving such written statement. The department will review any additional information submitted and make a final determination within sixty days.

(c) If the department determines that the facility did not close in accordance with 40 CFR Part 264.111 standards for closure by removal, the facility is subject to post-closure permitting requirements.

(11) The department may require a permittee or an applicant to submit information in order to establish permit conditions under subsection (8) of this section and WAC 173-303-806 (1)(d).

AMENDATORY SECTION (Amending Order 94-30, filed 10/19/95, effective 11/19/95)

WAC 173-303-802 Permits by rule. (1) Purpose and applicability. This section provides for permit by rule for particular facilities and activities managing dangerous wastes, provided that certain conditions are met. These facilities, activities, and conditions are listed in this section. Owners and operators of facilities with permits by rule are not required to submit an application for a dangerous waste facility permit.

(2) Ocean disposal barges or vessels. The owner or operator of a barge or other vessel which accepts dangerous waste for ocean disposal, will have a permit by rule if the owner or operator:

(a) Has a permit for ocean dumping issued under 40 CFR Part 220 (Ocean Dumping, authorized by the Marine Protection, Research, and Sanctuaries Act, as amended, 33 U.S.C. § 1420 et seq.);

(b) Complies with the conditions of that permit; and

(c) Complies with the following dangerous waste regulations:

(i) WAC 173-303-060, notification and identification numbers;

(ii) WAC 173-303-170 through 173-303-230 when initiating shipments of dangerous waste;

(iii) WAC 173-303-370, manifest system;

(iv) WAC 173-303-380 (1)(a), operating record;

(v) WAC 173-303-390(2), annual report; and

(vi) WAC 173-303-390(1), unmanifested waste report.

(3) Underground injection wells. Underground injection wells with an underground injection control (UIC) permit for underground injection will have a permit by rule if the owner or operator has a UIC permit issued by the department under a federally approved program for underground injection control, and complies with the conditions of the permit and requirements of 40 CFR 144.14 and applicable state waste discharge rules. For UIC permits issued after November 8, 1984, the owner or operator must comply with WAC 173-303-646(2), corrective action for solid waste management units; and where the UIC well is the only unit at a facility which requires a RCRA permit, complies with

WAC 173-303-806 (4)(a)(xxiii). All underground injection wells must comply with WAC 173-303-060, notification and identification numbers. However, underground injection wells disposing of EHW are prohibited.

(4) Publicly owned treatment works (POTW). The owner or operator of a POTW which accepts dangerous waste for treatment, will have a permit by rule if the owner or operator:

(a) Has a National Pollutant Discharge Elimination System (NPDES) permit;

(b) Complies with the conditions of that permit;

(c) Complies with the following regulations:

(i) WAC 173-303-060, notification and identification numbers;

(ii) WAC 173-303-170 through 173-303-230 when initiating shipments of dangerous waste;

(iii) WAC 173-303-283, performance standards;

(iv) WAC 173-303-370, manifest system;

(v) WAC 173-303-380 (1)(a), operating record;

(vi) WAC 173-303-390(2), annual report;

(vii) WAC 173-303-390(1), unmanifested waste reports; and

(viii) For NPDES permits issued after November 8, 1984, WAC 173-303-646(2), corrective action for solid waste management units;

(d) Accepts the waste only if it meets all federal, state, and local pretreatment requirements which would be applicable to the waste if it were being discharged into the POTW through a sewer, pipe, or similar conveyance; and

(e) Accepts no EHW for disposal at the POTW.

(5) Totally enclosed treatment facilities or elementary neutralization or wastewater treatment units.

(a) The owner or operator of a totally enclosed treatment facility or an elementary neutralization or wastewater treatment unit that treats state-only dangerous wastes generated on or off site, or federally regulated hazardous wastes generated on site will have a permit by rule, except as provided in ~~((b))~~ (c) of this subsection, if ~~((he))~~ they:

(i) ~~((Has))~~ Have an NPDES permit, state waste discharge permit, pretreatment permit (or written discharge authorization from the local sewerage authority) issued by the department, or pretreatment permit (or written discharge authorization) from a local sewage utility delegated pretreatment program responsibilities pursuant to RCW 90.48.165, and the permit or authorization covers the waste stream and constituents being discharged;

(ii) ~~((Complies))~~ Comply with the conditions of that permit;

(iii) ~~((Complies))~~ Comply with the following regulations:

(A) WAC 173-303-060, notification and identification numbers;

(B) WAC 173-303-070, designation of dangerous waste;

(C) WAC 173-303-283, performance standards;

(D) WAC 173-303-300, general waste analysis;

(E) WAC 173-303-310, security;

(F) WAC 173-303-350, contingency plan and emergency procedures;

(G) WAC 173-303-360, emergencies;

(H) WAC 173-303-370, manifest system;

(I) WAC 173-303-380 (1)(d), operating record;

(J) WAC 173-303-390, facility reporting.

(b) The owner or operator of a wastewater treatment unit that treats federally regulated hazardous wastes received from off site will have a permit by rule, except as provided in (c) of this subsection, if:

(i) The facility has received a permit (or interim status) for treatment, storage, or disposal of hazardous wastes in accordance with WAC 173-303-800, 173-303-801, and 173-303-804 through 173-303-840; and

(ii) The owner or operator complies with (a)(i) through (iii) of this subsection.

(c) The department may require the owner or operator of a totally enclosed treatment facility or an elementary neutralization or wastewater treatment unit subject to (a) or (b) of this subsection to apply for and obtain a final facility permit or a permit modification in accordance with WAC 173-303-800 through 173-303-840, if:

(i) The owner or operator violates the general facility or performance requirements specified in (a) of this subsection;

(ii) The owner or operator is conducting other activities which require him to obtain a final facility permit;

(iii) The department determines that the general facility or performance requirements specified in (a) of this subsection, are not sufficient to protect public health or the environment and that additional requirements under this chapter are necessary to provide such protection; or

(iv) The owner or operator does not comply with applicable local, state or federal requirements established pursuant to sections 402 or 307(b) of the Federal Clean Water Act, or chapter 90.48 RCW.

AMENDATORY SECTION (Amending Order 94-30, filed 10/19/95, effective 11/19/95)

WAC 173-303-804 Emergency permits. Requirements for an emergency permit. In the event the department finds that an imminent and substantial endangerment to human health or the environment exists, the department may issue a temporary emergency permit to a facility to allow treatment, storage, or disposal (TSD) of dangerous waste at a nonpermitted facility, or at a facility covered by an effective permit that does not otherwise allow treatment, storage, or disposal of such dangerous waste. Notice of the issuance of an emergency permit will be given to the fire marshal, police department, and other local emergency service agencies with jurisdiction near the location of the facility. The emergency permit:

(1) May be oral or written. If oral, it will be followed within five days by a written emergency permit;

(2) Will not exceed ninety days in duration for dangerous wastes;

(3) Will not exceed one hundred eighty days in duration for ~~((moderate risk wastes))~~ special waste;

(4) Will clearly specify the dangerous wastes to be received, and the manner and location of their treatment, storage, or disposal;

(5) May be terminated by the department at any time without following the decisionmaking procedures of WAC 173-303-840 if the department determines that termination is appropriate to protect public health and the environment;

(6)(a) Will be accompanied by a public notice that includes:

(i) The name and address of the department;

- (ii) The name and location of the permitted TSD facility;
- (iii) A brief description of the wastes involved;
- (iv) A brief description of the action authorized and reasons for authorizing it; and
- (v) The duration of the emergency permit; and
- (b) Will be given public notice by:
 - (i) Publication in a daily newspaper within the area affected;
 - (ii) By radio broadcast within the area affected;
 - (iii) By mailing a copy of the public notice to the persons described in WAC 173-303-840 (3)(e)(i); and
 - (iv) Any other method reasonably determined to give actual notice of the emergency permit to persons potentially affected by it; and
- (7) Will incorporate, to the extent possible and not inconsistent with the emergency situation, all applicable requirements of this chapter.

AMENDATORY SECTION (Amending Order 94-30, filed 10/19/95, effective 11/19/95)

WAC 173-303-805 Interim status permits. (1) Applicability. This section applies to all facilities eligible for an interim status permit. When a facility is owned by one person but is operated by another person, it is the operator's duty to qualify for interim status, except that the owner must also sign an interim status application. Prior to submittal of an interim status permit application the requirements of WAC 173-303-281 must be met.

(2) Failure to qualify for interim status. If the department has reason to believe upon examination of a Part A application that it fails to provide the required information, it will notify the owner or operator in writing of the apparent deficiency. Such notice will specify the grounds for the department's belief that the application is deficient. The owner or operator will have thirty days from receipt to respond to such a notification and to explain or cure the alleged deficiency in his Part A application. If, after such notification and opportunity for response, the department determines that the application is deficient it may take appropriate enforcement action.

(3) Interim status for facilities under RCRA interim status. Any existing facility operating under interim status gained under section 3005 of RCRA will be deemed to have an interim status permit under this chapter provided that the owner/operator complies with the applicable requirements of WAC 173-303-400 and this section.

(4) Interim status for facilities managing state-designated (non-RCRA) dangerous wastes. Any existing facility which does not satisfy subsection (3) of this section, but which is only managing dangerous wastes that are not hazardous wastes under 40 CFR Part 261, will be deemed to have an interim status permit provided that the owner/operator of the facility has complied with the notification requirements of WAC 173-303-060 by May 11, 1982 and has submitted Part A of his permit application by August 9, 1982. If an existing facility becomes subject to this chapter due to amendments to this chapter and the facility was not previously subject to this chapter, then the owner/operator of an existing facility may qualify for an interim status permit by complying with the notification requirements of WAC 173-

303-060 within three months, and submitting Part A of his permit application within six months, after the adoption date of the amendments which cause the facility to be subject to the requirements of this chapter. Facilities qualifying for interim status under this subsection will not be deemed to have interim status under section 3005 of RCRA, and may only manage non-RCRA wastes until they either qualify separately for interim status under section 3005 of RCRA or receive a final status facility permit allowing them to manage RCRA wastes.

(5) Maintaining the interim status permit.

(a) Timely notification and submission of a Part A application qualifies the owner/operator of the existing TSD facility for the interim status permit, until the department terminates interim status pursuant to subsection (8) of this section.

(b) Interim status for the existing TSD facility will be maintained while the department makes final administrative disposition of a final facility permit pursuant to WAC 173-303-806 if:

(i) The owner/operator has submitted his final facility permit application (as described in WAC 173-303-806) within six months of the written request by the department to submit such application; and

(ii) Grounds for terminating interim status (as described in subsection (8) of this section) do not exist.

(c) The owner/operator of an interim status facility must update his Part A whenever he is managing wastes that are newly regulated under this chapter, and as necessary to comply with subsection (7) of this section. Failure to comply with this updating requirement is a violation of interim status.

(6) Prohibitions for interim status permits. Facilities with an interim status permit must not:

(a) Treat, store, or dispose of dangerous waste not specified in Part A of the permit application;

(b) Employ processes not specified in Part A of the permit application; or

(c) Exceed the design capacities specified in Part A of the permit application.

(7) Changes during interim status.

(a) Except as provided in (b) of this subsection, the owner or operator of an interim status facility may make the following changes at the facility:

(i) Treatment, storage, or disposal of new dangerous wastes not previously identified in Part A of the permit application (and, in the case of newly listed or identified wastes, addition of the units being used to treat, store, or dispose of the dangerous wastes on the effective date of the listing or identification) if the owner or operator submits a revised Part A permit application prior to such treatment, storage, or disposal (along with a justification detailing the equipment and process or processes that the owner or operator will use to treat, store, or dispose of the new dangerous wastes) and if the department does not explicitly deny the changes within sixty days of receipt of the revised application;

(ii) Increases in the design capacity of processes used at the facility if the owner or operator submits a revised Part A permit application prior to such a change (along with a justification explaining the need for the change), the require-

ments of WAC 173-303-281 are met, and the department approves the changes because:

(A) There is a lack of available treatment, storage, or disposal capacity at other dangerous waste management facilities; or

(B) The change is necessary to comply with a federal, state, or local requirement.

(iii) Changes in the processes for the treatment, storage, or disposal of dangerous waste or addition of processes if the owner or operator submits a revised Part A permit application prior to such change (along with a justification explaining the need for the change) and the department approves the change because:

(A) The change is necessary to prevent a threat to human health and the environment because of an emergency situation; or

(B) The change is necessary to comply with a federal, state, or local requirement.

(iv) Changes in the ownership or operational control of a facility if the new owner or operator submits a revised Part A permit application no later than ninety days prior to the scheduled change. When a transfer of operational control of a facility occurs, the old owner or operator must comply with the interim status financial requirements of 40 CFR Part 265, Subpart H (as referenced in WAC 173-303-400), until the new owner or operator has demonstrated to the department that he is complying with the financial requirements. Upon demonstration to the department by the new owner or operator of compliance with the interim status financial requirements, the department will notify the old owner or operator in writing that he no longer needs to comply with the interim status financial requirements as of the date of demonstration. The new owner or operator must demonstrate compliance with the financial requirements within six months of the date of the change in ownership or operational control of the facility. All other interim status duties are transferred effective immediately upon the date of the change in ownership or operational control of the facility.

(v) Changes made in accordance with an interim status corrective action order issued by EPA under section 3008(h) of RCRA or other federal authority, including an order or consent decree issued pursuant to WAC 173-303-646 (2) or (3), by the department under chapter 70.105 RCW or other state authority, or by a court in a judicial action brought by EPA or by the department. Changes under this subsection (7)(a)(v) are limited to the treatment, storage, or disposal of solid waste from releases that originate within the boundary of the facility.

(vi) Addition of newly regulated units for the treatment, storage, or disposal of dangerous waste if the owner or operator submits a revised Part A permit application on or before the date on which the unit becomes subject to the new requirements.

(b) Except as specifically allowed under this subsection (7)(b), changes listed under (a) of this subsection may not be made if they amount to reconstruction of the dangerous waste management facility. Reconstruction occurs when the capital investment in the changes to the facility exceeds fifty percent of the capital cost of a comparable entirely new dangerous waste management facility. If all other requirements are met, the following changes may be made even if they amount to a reconstruction:

(i) Changes made solely for the purposes of complying with the requirements of WAC 173-303-640(4) for tanks and ancillary equipment.

(ii) If necessary to comply with federal, state, or local requirements, changes to an existing unit, changes solely involving tanks or containers, or addition of replacement surface impoundments that satisfy the standards of section 3004(o) of RCRA.

(iii) Changes that are necessary to allow owners or operators to continue handling newly listed or identified dangerous wastes that have been treated, stored, or disposed of at the facility prior to the effective date of the rule establishing the new listing or identification.

(iv) Changes during closure of a facility or of a unit within a facility made in accordance with an approved closure plan.

(v) Changes necessary to comply with an interim status corrective action order issued by EPA under section 3008(h) or other federal authority, by the department under chapter 70.105 RCW or other state authority, or by a court in a judicial proceeding brought by EPA or an authorized state, provided that such changes are limited to the treatment, storage, or disposal of solid waste from releases that originate within the boundary of the facility.

(vi) Changes to treat or store, in tanks, containers, or containment buildings hazardous wastes subject to land disposal restrictions imposed by 40 CFR Part 268 or RCRA section 3004, provided that such changes are made solely for the purpose of complying with 40 CFR Part 268 or RCRA section 3004.

(vii) Addition of newly regulated units under (a)(vi) of this subsection.

(8) Termination of interim status permit. The following are causes for terminating an interim status permit, or for denying a revised permit application:

(a) Final administrative disposition of a final facility permit application is made pursuant to WAC 173-303-806;

(b) When the department on examination or reexamination of a Part A application determines that it fails to meet the applicable standards of this chapter, it may notify the owner or operator that the application is deficient and that the interim status permit has been revoked. The owner or operator will then be subject to enforcement for operating without a permit;

(c) Failure to submit a requested Part B application on time, or to provide in full the information required in the Part B application;

(d) Violation of applicable interim status standards;

(e) A determination that the permit applicant has failed to satisfy the performance standards of WAC 173-303-283;

(f) For owners or operators of each land disposal facility which has been granted interim status prior to November 8, 1984, interim status terminated on November 8, 1985, unless:

(i) The owner or operator submits a Part B application for a permit for such facility prior to that date; and

(ii) The owner or operator certifies that such facility is in compliance with all applicable ground water monitoring and financial responsibility requirements.

(g) For owners or operators of each land disposal facility which is in existence on the effective date of statutory or regulatory amendments under the Hazardous

Waste Management Act that render the facility subject to the requirement to have a final facility permit and which is granted interim status, interim status terminates twelve months after the date on which the facility first becomes subject to such permit requirement unless the owner or operator of such facility:

(i) Submits a Part B application for a final facility permit for such facility before the date twelve months after the date on which the facility first becomes subject to such permit requirement; and

(ii) Certifies that such facility is in compliance with all applicable ground water monitoring and financial responsibility requirements.

(h) For owners or operators of any land disposal unit that is granted authority to operate under subsection (7)(a)(i), (ii) or (iii) of this section, interim status terminates on the date twelve months after the effective date of such requirement, unless the owner or operator certifies that such unit is in compliance with all applicable ground water monitoring and financial responsibility requirements;

(i) For owners and operators of each incinerator facility which achieved interim status prior to November 8, 1984, interim status terminated on November 8, 1989, unless the owner or operator of the facility submitted a Part B application for a final facility permit for an incinerator facility by November 8, 1986; or

(j) For owners or operators of any facility (other than a land disposal or an incinerator facility) which has achieved interim status prior to November 8, 1984, interim status terminated on November 8, 1992, unless the owner or operator of the facility submitted a Part B application for a final facility permit for the facility by November 8, 1988.

(9) Reserve.

AMENDATORY SECTION (Amending Order 94-30, filed 10/19/95, effective 11/19/95)

WAC 173-303-806 Final facility permits. (1) Applicability. This section applies to all dangerous waste facilities required to have a final facility permit. The final facility permit requirements are applicable to:

(a) Final status TSD facilities; and

(b) Certain recycling facilities that are not exempt from the permit requirements.

(2) Application. Any person subject to the permit requirements of this section who intends to operate a new TSD facility must comply with WAC 173-303-281 and apply for a final facility permit. The department may, at any time, require the owner or operator of an existing TSD facility to apply for a final facility permit. Such owner or operator will be allowed one hundred eighty days to submit his application; the department may extend the length of the application period if it finds that there are good reasons to do so. The owner or operator of an existing TSD facility may voluntarily apply for a final facility permit at any time. Any person seeking a final facility permit must complete, sign, and submit an application to the department. An application must consist of a Part A permit form (which can be obtained from the department), and the contents of Part B as specified in subsection (4) of this section.

(3) Effective regulations. A final facility permit will include all applicable requirements of this chapter which are

in effect on the date that the permit is issued by the department. WAC 173-303-840(7) provides a means for reopening permit proceedings at the discretion of the department where new requirements become effective during the permitting process and are of sufficient magnitude to make additional proceedings desirable. Any other changes to the final facility permit will be in accordance with the permit modification requirements of WAC 173-303-830.

(4) Contents of Part B. Part B of a permit application must consist of the information required in (a) through ((+)) (1) of this subsection.

(a) General requirements. Part B of the permit application consists of the general information requirements of this subsection, and the specific information requirements in (b) through (h) of this subsection as applicable to the facility. The Part B information requirements presented in (a) through (h) of this subsection, reflect the standards promulgated in WAC 173-303-600. These information requirements are necessary in order for the department to determine compliance with WAC 173-303-600 through 173-303-670. If owners and operators of TSD facilities can demonstrate that the information prescribed in Part B cannot be provided to the extent required, the department may make allowance for submission of such information on a case-by-case basis. Information required in Part B must be submitted to the department and signed in accordance with requirements in WAC 173-303-810(12). Certain technical data, such as design drawings and specifications, and engineering studies must be certified by a registered professional engineer. The following information is required for all TSD facilities, except as WAC 173-303-600(3) provides otherwise.

(i) A general description of the facility.

(ii) Chemical, biological, and physical analyses of the dangerous waste and hazardous debris to be handled at the facility. At a minimum, these analyses must contain all the information which must be known to treat, store, or dispose of the wastes properly in accordance with WAC 173-303-600.

(iii) A copy of the waste analysis plan required by WAC 173-303-300(5) and, if applicable WAC 173-303-300(5)(g).

(iv) A description of the security procedures and equipment required by WAC 173-303-310, or a justification demonstrating the reasons for requesting a waiver of this requirement.

(v) A copy of the general inspection schedule required by WAC 173-303-320(2): Include where applicable, as part of the inspection schedule, specific requirements in WAC 173-303-395 (1)(d), 173-303-630(6), 173-303-640 (4)(a)(i) and (6), 173-303-650(4), 173-303-655(4), 173-303-660 (4) and (5), 173-303-665(4), 173-303-670(7), and 173-303-680(3), and 40 CFR 264.1033, 264.1035, 264.1052, 264.1053, 264.1058, 264.1064, 264.1067, 264.1088, and 264.1091.

(vi) A justification of any request for a waiver(s) of the preparedness and prevention requirements of WAC 173-303-340, or a description of the procedures used to comply with these requirements.

(vii) A copy of the contingency plan required by WAC 173-303-350: Include, where applicable, as part of the contingency plan, specific requirements in WAC 173-303-640(7), 173-303-650(5) and 173-303-660(6).

(viii) A description of procedures, structures, or equipment used at the facility to:

(A) Prevent hazards and contain spills in unloading/loading operations (for example, ramps, berms, pavement, special forklifts);

(B) Prevent run-off from dangerous waste handling areas to other areas of the facility or environment, or to prevent flooding (for example, berms, dikes, trenches);

(C) Prevent contamination of water supplies;

(D) Mitigate effects of equipment failure and power outages;

(E) Prevent undue exposure of personnel to dangerous waste (for example, protective clothing); and

(F) Prevent releases to the atmosphere.

(ix) A description of precautions to prevent accidental ignition or reaction of ignitable, reactive, or incompatible wastes as required to demonstrate compliance with WAC 173-303-395 including documentation demonstrating compliance with WAC 173-303-395 (1)(c).

(x) Traffic pattern, estimated volume (number, types of vehicles) and control (for example, show turns across traffic lanes, and stacking lanes (if appropriate); describe access road surfacing and load bearing capacity; show traffic control signals).

(xi) Seismic risk consideration. The owner/operator of a proposed facility or expansion of an existing facility must identify the seismic risk zone in which the facility is intended to be located. Where state or local maps are not available, United States Geological Survey Open File Report number 82-1033 may be used to identify seismic risk zones. The owner/operator must demonstrate that the facility can and will be designed to resist seismic ground motion and that the design is sufficient to withstand the maximum horizontal acceleration of a design earthquake specified in the demonstration.

(xii) An outline of both the introductory and continuing training programs by owners or operators to prepare persons to operate or maintain the TSD facility in a safe manner as required to demonstrate compliance with WAC 173-303-330. A brief description of how training will be designed to meet actual job tasks in accordance with requirements in WAC 173-303-330 (1)(d).

(xiii) A copy of the closure plan and, where applicable, the post-closure plan required by WAC 173-303-610 (3) and (8). Include, where applicable, as part of the plans, specific requirements in WAC 173-303-630(10), 173-303-640(8), 173-303-650(6), 173-303-655(8), 173-303-660(9), 173-303-665(6), 173-303-670(8), and 173-303-680 (2) and (4).

(xiv) For dangerous waste disposal units that have been closed, documentation that notices required under WAC 173-303-610(10) have been filed.

(xv) The most recent closure cost estimate for the facility prepared in accordance with WAC 173-303-620(3) and a copy of the documentation required to demonstrate financial assurance under WAC 173-303-620(4). For a new facility, a copy of the required documentation may be submitted sixty days prior to the initial receipt of dangerous wastes, if that is later than the submission of the Part B.

(xvi) Where applicable, the most recent post-closure cost estimate for the facility prepared in accordance with WAC 173-303-620(5) plus a copy of the documentation required to demonstrate financial assurance under WAC 173-303-

620(6). For a new facility, a copy of the required documentation may be submitted sixty days prior to the initial receipt of dangerous wastes, if that is later than the submission of the Part B.

(xvii) Where applicable, a copy of the insurance policy or other documentation which comprises compliance with the requirements of WAC 173-303-620(8). For a new facility, documentation showing the amount of insurance meeting the specification of WAC 173-303-620 (8)(a) and, if applicable, WAC 173-303-620 (8)(b), that the owner or operator plans to have in effect before initial receipt of dangerous waste for treatment, storage, or disposal. A request for a variance in the amount of required coverage, for a new or existing facility, may be submitted as specified in WAC 173-303-620 (8)(c).

(xviii) A topographic map showing a distance of one thousand feet around the facility at a scale of 2.5 centimeters (1 inch) equal to not more than 61.0 meters (200 feet). Contours must be shown on the map. The contour interval must be sufficient to clearly show the pattern of surface water flow in the vicinity of and from each operational unit of the facility. For example, contours with an interval of 1.5 meters (5 feet), if relief is greater than 6.1 meters (20 feet), or an interval of 0.6 meters (2 feet), if relief is less than 6.1 meters (20 feet). Owners and operators of TSD facilities located in mountainous areas should use large contour intervals to adequately show topographic profiles of facilities. The map must clearly show the following:

(A) Map scale and date;

(B) One hundred-year floodplain area;

(C) Surface waters including intermittent streams;

(D) Surrounding land uses (residential, commercial, agricultural, recreational);

(E) A wind rose (i.e., prevailing windspeed and direction);

(F) Orientation of the map (north arrow);

(G) Legal boundaries of the TSD facility site;

(H) Access control (fences, gates);

(I) Injection and withdrawal wells both on-site and off-site;

(J) Buildings; treatment, storage, or disposal operations; or other structure (recreation areas, run-off control systems, access and internal roads, storm, sanitary, and process sewerage systems, loading and unloading areas, fire control facilities, etc.);

(K) Barriers for drainage or flood control;

(L) Location of operational units within the TSD facility site, where dangerous waste is (or will be) treated, stored, or disposed (include equipment clean-up areas); and

(M) For land disposal facilities, if a case-by-case extension has been approved under 40 CFR 268.5 or a petition has been approved under 40 CFR 268.6, a copy of the notice of approval for the extension or petition is required.

(Note - For large TSD facilities the department will allow the use of other scales on a case-by-case basis.)

(xix) Applicants may be required to submit such information as may be necessary to enable the department to carry out its duties under other state or federal laws as required.

(xx) Additional information requirements. The following additional information regarding protection of ground

water is required from owners or operators of dangerous waste facilities containing a regulated unit except as otherwise provided in WAC 173-303-645 (1)(b):

(A) A summary of the ground water monitoring data obtained during the interim status period under 40 CFR 265.90 through 265.94, where applicable;

(B) Identification of the uppermost aquifer and aquifers hydraulically interconnected beneath the facility property, including ground water flow direction and rate, and the basis for such identification (i.e., the information obtained from hydrogeologic investigations of the facility area);

(C) On the topographic map required under (a)(xviii) of this subsection, a delineation of the waste management area, the property boundary, the proposed "point of compliance" as defined under WAC 173-303-645(6), the proposed location of ground water monitoring wells as required under WAC 173-303-645(8), and, to the extent possible, the information required in (a)(xx)(B) of this subsection;

(D) A description of any plume of contamination that has entered the ground water from a regulated unit at the time that the application was submitted that:

(I) Delineates the extent of the plume on the topographic map required under (a)(xviii) of this subsection;

(II) Identifies the concentration of each constituent throughout the plume or identifies the maximum concentrations of each constituent in the plume. (Constituents are those listed in Appendix IX of 40 CFR Part 264, and any other constituents not listed there which have caused a managed waste to be regulated under this chapter.);

(E) Detailed plans and an engineering report describing the proposed ground water monitoring program to be implemented to meet the requirements of WAC 173-303-645(8);

(F) If the presence of dangerous constituents has not been detected in the ground water at the time of permit application, the owner or operator must submit sufficient information, supporting data, and analyses to establish a detection monitoring program which meets the requirements of WAC 173-303-645(9). This submission must address the following items specified under WAC 173-303-645(9):

(I) A proposed list of indicator parameters, waste constituents, or reaction products that can provide a reliable indication of the presence of dangerous constituents in the ground water;

(II) A proposed ground water monitoring system;

(III) Background values for each proposed monitoring parameter or constituent, or procedures to calculate such values; and

(IV) A description of proposed sampling, analysis and statistical comparison procedures to be utilized in evaluating ground water monitoring data;

(G) If the presence of dangerous constituents has been detected in the ground water at the point of compliance at the time of permit application, the owner or operator must submit sufficient information, supporting data, and analyses to establish a compliance monitoring program which meets the requirements of WAC 173-303-645(10). The owner or operator must also submit an engineering feasibility plan for a corrective action program necessary to meet the requirements of WAC 173-303-645(11) except as provided in WAC 173-303-645 (9)(h)(v). Alternatively, the owner or operator can obtain written authorization in advance from the depart-

ment to submit a proposed permit schedule for development and submittal of such information. To demonstrate compliance with WAC 173-303-645(10), the owner or operator must address the following items:

(I) A description of the wastes previously handled at the facility;

(II) A characterization of the contaminated ground water, including concentrations of dangerous constituents and parameters;

(III) A list of constituents and parameters for which compliance monitoring will be undertaken in accordance with WAC 173-303-645 (8) and (10);

(IV) Proposed concentration limits for each dangerous constituent and parameter, based on the criteria set forth in WAC 173-303-645 (5)(a), including a justification for establishing any alternate concentration limits;

(V) Detailed plans and an engineering report describing the proposed ground water monitoring system, in accordance with the requirements of WAC 173-303-645(8); and

(VI) A description of proposed sampling, analysis and statistical comparison procedures to be utilized in evaluating ground water monitoring data; and

(H) If dangerous constituents or parameters have been measured in the ground water which exceed the concentration limits established under WAC 173-303-645(5), Table 1, or if ground water monitoring conducted at the time of permit application under 40 CFR 265.90 through 265.94 at the waste boundary indicates the presence of dangerous constituents from the facility in ground water over background concentrations, the owner or operator must submit sufficient information, supporting data, and analyses to establish a corrective action program which meets the requirements of WAC 173-303-645(11). However, an owner or operator is not required to submit information to establish a corrective action program if he demonstrates to the department that alternate concentration limits will protect human health and the environment after considering the criteria listed in WAC 173-303-645(5). An owner or operator who is not required to establish a corrective action program for this reason must instead submit sufficient information to establish a compliance monitoring program which meets the requirements of WAC 173-303-645 (10) and (a)(xx)(F) of this subsection. To demonstrate compliance with WAC 173-303-645(11), the owner or operator must address, at a minimum, the following items:

(I) A characterization of the contaminated ground water, including concentrations of dangerous constituents and parameters;

(II) The concentration limit for each dangerous constituent and parameter found in the ground water as set forth in WAC 173-303-645(5);

(III) Detailed plans and an engineering report describing the corrective action to be taken;

(IV) A description of how the ground water monitoring program will demonstrate the adequacy of the corrective action; and

(V) The permit may contain a schedule for submittal of the information required in (a)(xx)(H)(III) and (IV) of this subsection, provided the owner or operator obtains written authorization from the department prior to submittal of the complete permit application.

(xxi) Contingent ground water protection program. The following actions are required for owners or operators of proposed land-based facilities and may be required for owners/operators of existing land-based facilities, except as provided in WAC 173-303-645 (1)(b).

(A) Contingent ground water protection program. The owner or operator must develop a contingent ground water protection program. The purpose of this program will be to prevent the migration of dangerous waste or dangerous waste constituents from waste management units to the nearest hydraulically downgradient receptor at any time during the life of the facility. For the purposes of this subsection, the downgradient receptor will be the facility property line, perennial surface water or domestic well, whichever is nearest to the dangerous waste management unit. The contingent ground water protection program must at a minimum:

(I) Define the local and regional hydrogeologic characteristics. The contingent ground water protection program must be based on a sufficient understanding of site geology, hydrology, and other factors to allow evaluation of its adequacy by the department. Site characterization must be performed in sufficient detail to provide, at a minimum, the following information: Site geostratigraphy; site hydrostratigraphy; identification of aquifers, aquitards, and aquicludes; flow models for each stratum (i.e., porous media or fracture flow); the distribution of vertical and horizontal hydraulic conductivity; effective porosity; horizontal and vertical hydraulic gradients; ground water travel time to receptors; and heterogeneity for each stratigraphic unit. Site interpretative models must include ranges of tested values: The provisions of WAC 173-303-806 (4)(a)(xx) and 173-303-645, must be used as guidance in the development of the contingent ground water protection program.

(II) Identify the range of potential release scenarios that could occur during facility operation and the postclosure care period. The scenarios must incorporate the intended design(s) of the dangerous waste management unit(s), wastes to be placed in the dangerous waste management unit(s), waste and leachate chemistry, waste, and soil and rock geochemical interactions, and the results of site characterization pursuant to WAC 173-303-806 (4)(a)(xx) and (xxi);

(III) Include specific physical action to be taken if dangerous waste or dangerous waste constituents are detected in one or more of the monitoring wells. The physical actions must be based upon engineering feasibility studies describing remedial actions established from site specific conditions and waste features. Such actions may include installation of a pump and treat system between the monitoring well and the receptor or installation of a section of slurry wall to decrease ground water travel times. The description of the systems must also provide how the remediation system will achieve cleanup, its efficiency, and the timeframes involved;

(IV) Incorporate the design, construction, and sampling methods outlined in WAC 173-303-645 (8)(c), (d), (e), (f), and (g);

(V) Demonstrate to the satisfaction of the department that the owner/operator of the dangerous waste management facility has the financial capability to implement the proposed ground water protection plan; and

(VI) Include reporting procedures to the department.

(B) The response actions identified in WAC 173-303-806 (4)(a)(xxi)(A)(III) must be activated if the presence of dangerous waste or dangerous waste constituents have been detected at the point of compliance in accordance with WAC 173-303-645 (9)(g), and must continue until the concentration of dangerous waste or dangerous waste constituents under WAC 173-303-645(4) are reduced to levels below their respective concentration limits specified in WAC 173-303-645(5).

(C) If the owner/operator does not demonstrate that the ground water protection program will prevent the migration of dangerous waste or its constituents to the nearest receptor, the department will require corrections to be made in the protection program, increase setbacks from the nearest receptor, or deny the permit.

(xxii) Additional requirements for incineration facilities. The following actions regarding the protection of human health and the environment must be taken by owners/operators of proposed hazardous waste incineration facilities and may be required for owners or operators of existing incineration facilities.

(A) Ambient monitoring program. The owner/operator will be required to develop an ambient monitoring program. The purpose of this ambient monitoring program will be to: Gather baseline environmental information characterizing on-site and off-site environmental conditions prior to facility operation; and, to identify and measure changes in the environment which may be linked to the construction and operation of the facility. The ambient monitoring program must, at a minimum:

(I) Include a characterization of facility emission sources and pathways of contaminant transport.

(II) Characterize local and regional ecosystems, including agricultural, and their sensitivity to the potential contaminants from the facility.

(III) Incorporate the findings of the environmental impact statement's health risk assessment and/or other assessments specific to the proposal or available to the scientific community regarding emissions from dangerous waste management facilities and their potential human health and environmental effects.

(IV) Identify sensitive indicator plants and animals for biomonitoring, identify specific chemical constituents of concern, sampling locations, sampling frequency, sampling and analytical methods, chain of custody procedures, quality assurance/quality control procedures, reporting times, recordkeeping procedures, and data evaluation procedures.

(B) Environmental review procedures. The owner/operator must establish procedures to allow for public review of facility operation and all monitoring data required by the facility's permit. In developing this process, the owner/operator must, at a minimum:

(I) Coordinate this effort with the public and interested local organizations;

(II) Identify the informational needs of the community and develop a public information process which meets these needs; and

(III) Develop procedures allowing full access by the public to all monitoring data required by the permit.

(C) Impact mitigation plan. Prior to the department issuing a permit, the owner/operator must submit an impact mitigation plan which demonstrates to the satisfaction of the

department that the owner/operator will mitigate all probable significant adverse impacts, including economic, due to facility location and operations. The owner/operator must use as a basis for identifying probable significant adverse economic impacts those probable economic impacts identified during a public review process, such as the environmental impact statement scoping process, if applicable.

The plan must include, but is not limited to, a description of what the owner/operator will do to reduce or prevent any probable significant impacts before they occur, to mitigate such impacts should they occur, and to ensure the owner/operator has and will have the financial capability to implement such preventative and mitigative measures. Mitigation measures may include, as an element, financial compensation to adversely affected parties.

This plan may be submitted with environmental reports the department requires for compliance with the State Environmental Policy Act, with the written citizen proponent negotiation report and agreements, or with the Part B permit application. If the plan does not demonstrate that the owner/operator is capable of adequately mitigating the identified probable significant adverse economic impacts, the department will require modification of the plan or of the proposed facility location, or will deny the permit application. The department must be satisfied with the plan prior to the issuance of the permit.

(xxiii) Information requirements for solid waste management units.

(A) The following information is required for each solid waste management unit:

(I) The location of the unit on the topographic map required under (a)(xviii) of this subsection.

(II) Designation of type of unit.

(III) General dimensions and structural description (supply any available drawings).

(IV) Time frame over which the unit was operated.

(V) Specification of all wastes that have been managed in the unit, to the extent available.

(B) The owner/operator of any facility containing one or more solid waste management units must submit all available information pertaining to any release of dangerous wastes or dangerous constituents from such unit or units.

(C) The owner/operator must conduct and provide the results of sampling and analysis of ground water, landsurface, and subsurface strata, surface water, or air, which may include the installation of wells, where the department determines it is necessary to complete a RCRA Facility Assessment that will determine if a more complete investigation is necessary.

WAC 173-303-806 (4)(a)(xxiv):

(xxiv) Information requirements for known releases.

(A) In order to provide for corrective action necessary to protect human health and the environment, the following information is required for all known significant releases of dangerous waste and dangerous constituents (as defined by WAC 173-303-646 (2)(c)) at, and from, the facility. A significant release is a release which has affected or has the potential to affect human health or the environment at or beyond the facility.

(I) The location of the release on the topographic map required under (a)(xviii) of this subsection.

(II) General dimensions of the release and any relevant structural description. For example, if the release is from a storage tank, provide a structural description of the tank. Supply any available drawings.

(III) Time frame over which the release occurred.

(IV) Specification of all dangerous waste or dangerous constituents (as defined by WAC 173-303-646 (2)(c)) present in the release, to the extent available.

(b) Specific Part B information requirements for containers. Except as otherwise provided in WAC 173-303-600(3), owners or operators of facilities that store containers of dangerous waste must provide the following additional information:

(i) A description of the containment system to demonstrate compliance with WAC 173-303-630(7). Show at least the following:

(A) Basic design parameters, dimensions, and materials of construction including allowance for a twenty-five-year, twenty-four-hour storm;

(B) How the design promotes positive drainage control or how containers are kept from contact with standing liquids in the containment system;

(C) Capacity of the containment system relative to the volume of the largest container to be stored;

(D) Provisions for preventing or managing run-on;

(E) How accumulated liquids can be analyzed and removed to prevent overflow; and

(F) A description of the building or other protective covering for EHW containers;

(ii) For storage areas that store containers holding wastes that do not contain free liquids, a demonstration of compliance with WAC 173-303-630 (7)(c), including:

(A) Test procedures and results or other documentation or information to show that the wastes do not contain free liquids; and

(B) A description of how the storage area is designed or operated to drain and remove liquids or how containers are kept from contact with standing liquids;

(iii) A description of the procedures for labeling containers;

(iv) Sketches, drawings, or data demonstrating compliance with WAC 173-303-630(8) (location of buffer zone and containers holding ignitable or reactive wastes) and WAC 173-303-630 (9)(c) (location of incompatible wastes), where applicable; and

(v) Where incompatible wastes are stored or otherwise managed in containers, a description of the procedures used to ensure compliance with WAC 173-303-630 (9)(a) and (b), and 173-303-395 (1)(b) and (c).

(c) Specific Part B information requirements for tanks. Except as otherwise provided in WAC 173-303-600(3), owners and operators of facilities that use tanks to store or treat dangerous waste must provide the following information:

(i) A written assessment that is reviewed and certified by an independent, qualified, registered professional engineer as to the structural integrity and suitability for handling dangerous waste of each tank system, as required under WAC 173-303-640 (2) and (3);

(ii) Dimensions and capacity of each tank;

(iii) Description of feed systems, safety cutoff, bypass systems, and pressure controls (e.g., vents);

(iv) A diagram of piping, instrumentation, and process flow for each tank system;

(v) A description of materials and equipment used to provide external corrosion protection, as required under WAC 173-303-640 (3)(a)(iii)(B);

(vi) For new tank systems, a detailed description of how the tank system(s) will be installed in compliance with WAC 173-303-640 (3)(b), (c), (d), and (e);

(vii) Detailed plans and a description of how the secondary containment system for each tank system is or will be designed, constructed, and operated to meet the requirements of WAC 173-303-640 (4)(a), (b), (c), (d), (e), and (f);

(viii) For tank systems for which a variance from the requirements of WAC 173-303-640(4) is sought (as provided by WAC 173-303-640 (4)(g)):

(A) Detailed plans and engineering and hydrogeologic reports, as appropriate, describing alternate design and operating practices that will, in conjunction with location aspects, prevent the migration of any dangerous waste or dangerous constituents into the ground water or surface water during the life of the facility; or

(B) A detailed assessment of the substantial present or potential hazards posed to human health or the environment should a release enter the environment.

(ix) Description of controls and practices to prevent spills and overflows, as required under WAC 173-303-640 (5)(b);

(x) For tank systems in which ignitable, reactive, or incompatible wastes are to be stored or treated, a description of how operating procedures and tank system and facility design will achieve compliance with the requirements of WAC 173-303-640 (9) and (10);

(xi) A description of the marking and/or labeling of tanks; and

(xii) Tank design to prevent escape of vapors and emissions of acutely or chronically toxic (upon inhalation) EHW.

(d) Specific Part B information requirements for surface impoundments. Except as otherwise provided in WAC 173-303-600(3), owners and operators of facilities that store, treat, or dispose of dangerous waste in surface impoundments must provide the following additional information:

(i) A list of the dangerous wastes placed or to be placed in each surface impoundment;

(ii) Detailed plans and an engineering report describing how the surface impoundment is designed, and is or will be constructed, operated and maintained to meet the requirements of WAC 173-303-650 (2)(j), (10), (11), and 173-303-335, addressing the following items:

(A) The liner system (except for an existing portion of a surface impoundment), including the certification required by WAC 173-303-650 (2)(a)(i)(D) for EHW management. If an exemption from the requirement for a liner is sought as provided by WAC 173-303-650 (2)(b), submit detailed plans and engineering and hydrogeologic reports, as appropriate, describing alternate design and operating practices that will, in conjunction with location aspects, prevent the migration of any dangerous constituents into the ground water or surface water at any future time;

(B) Prevention of overtopping;

(C) Structural integrity of dikes;

(D) The double liner and leak (leachate) detection, collection, and removal system, if the surface impoundment must meet the requirements of WAC 173-303-650 (2)(j). If an exemption from the requirements for double liners and a leak detection, collection, and removal system or alternative design is sought as provided by WAC 173-303-650 (2)(k), (l), or (m), submit appropriate information;

(E) If the leak detection system is located in a saturated zone, submit detailed plans and an engineering report explaining the leak detection system design and operation, and the location of the saturated zone in relation to the leak detection system;

(F) The construction quality assurance (CQA) plan if required under WAC 173-303-335; and

(G) Proposed action leakage rate, with rationale, if required under WAC 173-303-650(10), and response action plan, if required under WAC 173-303-650(11).

(iii) Reserve.

(iv) A description of how each surface impoundment, including the double liner system, leak detection system, cover systems and appurtenances for control of overtopping, will be inspected in order to meet the requirements of WAC 173-303-650 (4)(a), (b), and (d). This information should be included in the inspection plan submitted under (a)(v) of this subsection;

(v) A certification by a qualified engineer which attests to the structural integrity of each dike, as required under WAC 173-303-650 (4)(c). For new units, the owner or operator must submit a statement by a qualified engineer that he will provide such a certification upon completion of construction in accordance with the plans and specifications;

(vi) A description of the procedure to be used for removing a surface impoundment from service, as required under WAC 173-303-650 (5)(b) and (c). This information should be included in the contingency plan submitted under (a)(vii) of this subsection;

(vii) A description of how dangerous waste residues and contaminated materials will be removed from the unit at closure, as required under WAC 173-303-650 (6)(a)(i). For any wastes not to be removed from the unit upon closure, the owner or operator must submit detailed plans and an engineering report describing how WAC 173-303-650 (6)(a)(ii) and (b) will be complied with. This information should be included in the closure plan and, where applicable, the post-closure plan submitted under (a)(xiii) of this subsection;

(viii) If ignitable or reactive wastes are to be placed in a surface impoundment, an explanation of how WAC 173-303-650(7) will be complied with;

(ix) If incompatible wastes, or incompatible wastes and materials will be placed in a surface impoundment, an explanation of how WAC 173-303-650(8) will be complied with; and

(x) Where applicable, a waste management plan for Dangerous Waste Nos. F020, F021, F022, F023, F026, or F027 describing how the surface impoundment is or will be designed to meet the requirements of WAC 173-303-650(9).

(e) Specific Part B information requirements for waste piles. Except as otherwise provided in WAC 173-303-600(3), owners and operators of facilities that store or treat dangerous waste in waste piles must provide the following additional information:

(i) A list of dangerous wastes placed or to be placed in each waste pile;

(ii) If an exemption is sought to WAC 173-303-660(2), and 173-303-645 as provided by WAC 173-303-660 (1)(c), an explanation of how the standards of WAC 173-303-660 (1)(c) will be complied with;

(iii) Detailed plans and an engineering report describing how the waste pile is designed, and is or will be constructed, operated, and maintained to meet the requirements of WAC 173-303-335, 173-303-660 (2)(j), (11) and (12), addressing the following items:

(A)(I) The liner system (except for an existing portion of a pile) if the waste pile must meet the requirements of WAC 173-303-660(2), including the licensed engineer's certification when required by WAC 173-303-660 (2)(c). If an exemption from the requirement for a liner is sought, as provided by WAC 173-303-660 (2)(d), submit detailed plans and engineering and hydrogeologic reports, as applicable, describing alternate design and operating practices that will, in conjunction with location aspects, prevent the migration of any dangerous constituents into the ground water or surface water at any future time;

(II) The double liner and leak (leachate) detection, collection, and removal system, if the waste pile must meet the requirements of WAC 173-303-660 (2)(j). If an exemption from the requirements for double liners and a leak detection, collection, and removal system or alternative design is sought as provided by WAC 173-303-660 (2)(k), (l), or (m), submit appropriate information;

(III) If the leak detection system is located in a saturated zone, submit detailed plans and an engineering report explaining the leak detection system design and operation, and the location of the saturated zone in relation to the leak detection system;

(IV) The construction quality assurance (CQA) plan if required under WAC 173-303-335;

(V) Proposed action leakage rate, with rationale, if required under WAC 173-303-660(3), and response action plan, if required under WAC 173-303-660(4);

(B) Control of run-on;

(C) Control of run-off;

(D) Management of collection and holding units associated with run-on and run-off control systems; and

(E) Control of wind dispersal of particulate matter, where applicable;

(iv) Reserve.

(v) A description of how each waste pile, including the double liner system, leachate collection and removal system, leak detection system, cover system and appurtenances for control of run-on and run-off, will be inspected in order to meet the requirements of WAC 173-303-660(5). This information should be included in the inspection plan submitted under (a)(v) of this subsection. If an exemption is sought to WAC 173-303-645 pursuant to WAC 173-303-660(4), describe in the inspection plan how the inspection requirements of WAC 173-303-660 (4)(a)(iii) will be complied with;

(vi) If treatment is carried out on or in the pile, details of the process and equipment used, and the nature and quality of the residuals;

(vii) If ignitable or reactive wastes are to be placed in a waste pile, an explanation of how the requirements of WAC 173-303-660(7) will be complied with;

(viii) If incompatible wastes, or incompatible wastes and materials will be placed in a waste pile, an explanation of how WAC 173-303-660(8) will be complied with;

(ix) A description of how dangerous waste, waste residues and contaminated materials will be removed from the waste pile at closure, as required under WAC 173-303-660 (9)(a). For any waste not to be removed from the waste pile upon closure, the owner or operator must submit detailed plans and an engineering report describing how WAC 173-303-665 (6)(a) and (b) will be complied with. This information should be included in the closure plan and, where applicable, the post-closure plan submitted under (a)(xiii) of this subsection;

(x) Where applicable, a waste management plan for Dangerous Waste Nos. F020, F021, F022, F023, F026, or F027 describing how a waste pile that is not enclosed (as defined in WAC 173-303-660 (1)(c)) is or will be designed, constructed, operated, and maintained to meet the requirements of WAC 173-303-660(10).

(f) Specific Part B information requirements for incinerators. Except as WAC 173-303-670(1) provides otherwise, owners and operators of facilities that incinerate dangerous waste must fulfill the informational requirements of (f) of this subsection.

(i) When seeking an exemption under WAC 173-303-670 (1)(b) (ignitable or reactive wastes only):

(A) Documentation that the waste is listed as a dangerous waste in WAC 173-303-080, solely because it is ignitable; or

(B) Documentation that the waste is listed as a dangerous waste in WAC 173-303-080, solely because it is reactive for characteristics other than those listed in WAC 173-303-090 (7)(a)(iv) and (v), and will not be burned when other dangerous wastes are present in the combustion zone; or

(C) Documentation that the waste is a dangerous waste solely because it possesses the characteristic of ignitability, as determined by the tests for characteristics of dangerous waste under WAC 173-303-090; or

(D) Documentation that the waste is a dangerous waste solely because it possesses the reactivity characteristics listed in WAC 173-303-090 (7)(a)(i), (ii), (iii), (vi), (vii), and (viii), and that it will not be burned when other dangerous wastes are present in the combustion zone.

(ii) Submit a trial burn plan or the results of a trial burn, including all required determinations, in accordance with WAC 173-303-807.

(iii) In lieu of a trial burn, the applicant may submit the following information;

(A) An analysis of each waste or mixture of wastes to be burned including:

(I) Heating value of the waste in the form and composition in which it will be burned;

(II) Viscosity (if applicable), or description of physical form of the waste, and specific gravity of the waste;

(III) An identification of any dangerous organic constituents listed in WAC 173-303-9905 or, if not listed, which cause the waste(s) to be regulated, which are present in the waste to be burned, except that the applicant need not analyze for constituents which would reasonably not be

expected to be found in the waste. The constituents excluded from analysis must be identified and the basis for their exclusion stated. The waste analysis must rely on analytical techniques specified in WAC 173-303-110 (3)(a), or their equivalent;

(IV) An approximate quantification of the dangerous constituents identified in the waste, within the precision produced by the analytical methods specified in WAC 173-303-110 (3)(a); and

(V) A quantification of those dangerous constituents in the waste which may be designated as principal organic dangerous constituents (PODC's) based on data submitted from other trial or operational burns which demonstrate compliance with the performance standards in WAC 173-303-670(4);

(B) A detailed engineering description of the incinerator, including:

(I) Manufacturer's name and model number of incinerator;

(II) Type of incinerator;

(III) Linear dimension of incinerator unit including cross sectional area of combustion chamber;

(IV) Description of auxiliary fuel system (type/feed);

(V) Capacity of prime mover;

(VI) Description of automatic waste feed cutoff system(s);

(VII) Stack gas monitoring and pollution control monitoring system;

(VIII) Nozzle and burner design;

(IX) Construction materials; and

(X) Location and description of temperature, pressure, and flow indicating devices and control devices;

(C) A description and analysis of the waste to be burned compared with the waste for which data from operational or trial burns are provided to support the contention that a trial burn is not needed. The data should include those items listed in (f)(iii)(A) of this subsection. This analysis should specify the principal organic dangerous constituents (PODC's) which the applicant has identified in the waste for which a permit is sought, and any differences from the PODC's in the waste for which burn data are provided;

(D) The design and operating conditions of the incinerator unit to be used, compared with that for which comparative burn data are available;

(E) A description of the results submitted from any previously conducted trial burn(s) including:

(I) Sampling and analysis techniques used to calculate performance standards in WAC 173-303-670(4); and

(II) Methods and results of monitoring temperatures, waste feed rates, carbon monoxide, and an appropriate indicator of combustion gas velocity (including a statement concerning the precision and accuracy of this measurement);

(F) The expected incinerator operation information to demonstrate compliance with WAC 173-303-670 (4) and (6), including:

(I) Expected carbon monoxide (CO) level in the stack exhaust gas;

(II) Waste feed rate;

(III) Combustion zone temperature;

(IV) Indication of combustion gas velocity;

(V) Expected stack gas volume, flow rate, and temperature;

(VI) Computed residence time for waste in the combustion zone;

(VII) Expected hydrochloric acid removal efficiency;

(VIII) Expected fugitive emissions and their control procedures; and

(IX) Proposed waste feed cutoff limits based on the identified significant operating parameters;

(G) Such supplemental information as the department finds necessary to achieve the purposes of this subsection;

(H) Waste analysis data, including that submitted in (f)(iii)(A) of this subsection, sufficient to allow the department to specify as permit principal organic dangerous constituents (permit PODC's) those constituents for which destruction and removal efficiencies will be required; and

(I) Test protocols and sampling and analytical data to demonstrate the designation status under WAC 173-303-070 of:

(I) Incinerator ash residues, if any; and

(II) Residues from the air pollution control devices.

(iv) The department will approve a permit application without a trial burn if the department finds that:

(A) The wastes are sufficiently similar; and

(B) The incinerator units are sufficiently similar, and the data from other trial burns are adequate to specify (under WAC 173-303-670(6)) operating conditions that will ensure that the performance standards in WAC 173-303-670(4) will be met by the incinerator.

(g) Specific Part B information requirements for land treatment facilities. Except as otherwise provided in WAC 173-303-600(3), owners and operators of facilities that use land treatment to dispose of dangerous waste must provide the following additional information:

(i) A description of plans to conduct a treatment demonstration as required under WAC 173-303-655(3). The description must include the following information:

(A) The wastes for which the demonstration will be made and the potential dangerous constituents in the waste;

(B) The data sources to be used to make the demonstration (e.g., literature, laboratory data, field data, or operating data);

(C) Any specific laboratory or field test that will be conducted, including:

(I) The type of test (e.g., column leaching, degradation);

(II) Materials and methods, including analytical procedures;

(III) Expected time for completion; and

(IV) Characteristics of the unit that will be simulated in the demonstration, including treatment zone characteristics, climatic conditions, and operating practices;

(ii) A description of a land treatment program, as required under WAC 173-303-655(2). This information must be submitted with the plans for the treatment demonstration, and updated following the treatment demonstration. The land treatment program must address the following items:

(A) The wastes to be land treated;

(B) Design measures and operating practices necessary to maximize treatment in accordance with WAC 173-303-655 (4)(a) including:

(I) Waste application method and rate;

(II) Measures to control soil pH;

(III) Enhancement of microbial or chemical reactions; and

(IV) Control of moisture content;

(C) Provisions for unsaturated zone monitoring, including:

(I) Sampling equipment, procedures, and frequency;

(II) Procedures for selecting sampling locations;

(III) Analytical procedures;

(IV) Chain of custody control;

(V) Procedures for establishing background values;

(VI) Statistical methods for interpreting results; and

(VII) The justification for any dangerous constituents recommended for selection as principal dangerous constituents, in accordance with the criteria for such selection in WAC 173-303-655 (6)(a);

(D) A list of dangerous constituents reasonably expected to be in, or derived from, the wastes to be land treated based on waste analysis performed pursuant to WAC 173-303-300;

(E) The proposed dimensions of the treatment zone;

(iii) A description of how the unit is or will be designed, constructed, operated, and maintained in order to meet the requirements of WAC 173-303-655(4). This submission must address the following items:

(A) Control of run-on;

(B) Collection and control of run-off;

(C) Minimization of run-off of dangerous constituents from the treatment zone;

(D) Management of collection and holding facilities associated with run-on and run-off control systems;

(E) Periodic inspection of the unit. This information should be included in the inspection plan submitted under (a)(v) of this subsection; and

(F) Control of wind dispersal of particulate matter, if applicable;

(iv) If food-chain crops are to be grown in or on the treatment zone of the land treatment unit, a description of how the demonstration required under WAC 173-303-655(5) will be conducted including:

(A) Characteristics of the food-chain crop for which the demonstration will be made;

(B) Characteristics of the waste, treatment zone, and waste application method and rate to be used in the demonstration;

(C) Procedures for crop growth, sample collection, sample analysis, and data evaluation;

(D) Characteristics of the comparison crop including the location and conditions under which it was or will be grown; and

(E) If cadmium is present in the land treated waste, a description of how the requirements of WAC 173-303-655 (5)(b) will be complied with;

(v) A description of the vegetative cover to be applied to closed portions of the facility, and a plan for maintaining such cover during the post-closure care period, as required under WAC 173-303-655 (8)(a)(viii) and (c)(ii). This information should be included in the closure plan and, where applicable, the post-closure care plan submitted under (a)(xiii) of this subsection;

(vi) If ignitable or reactive wastes will be placed in or on the treatment zone, an explanation of how the requirements of WAC 173-303-655(9) will be complied with; and

(vii) If incompatible wastes, or incompatible wastes and materials, will be placed in or on the same treatment zone, an explanation of how WAC 173-303-655(10) will be complied with.

(viii) Where applicable, a waste management plan for Dangerous Waste Nos. F020, F021, F022, F023, F026, or F027 describing how a land treatment facility is or will be designed, constructed, operated, and maintained to meet the requirements of WAC 173-303-655(12).

(h) Specific Part B information requirements for landfills. Except as otherwise provided in WAC 173-303-600(3), owners and operators of facilities that dispose of dangerous waste in landfills must provide the following additional information;

(i) A list of the dangerous wastes placed or to be placed in each landfill or landfill cell;

(ii) Detailed plans and an engineering report describing how the landfill is designed, and is or will be constructed, operated and maintained to comply with the requirements of WAC 173-303-335, 173-303-665 (2), (8) and (9) addressing the following items:

(A)(I) The liner system (except for an existing portion of a landfill), if the landfill must meet the requirements of WAC 173-303-665 (2)(a), including the licensed engineer's certification required by WAC 173-303-665 (2)(a)(i). If an exemption from the requirements for a liner and a leachate collection and removal system is sought, as provided by WAC 173-303-665 (2)(b), submit detailed plans and engineering and hydrogeologic reports, as appropriate, describing alternate designs and operating practices that will, in conjunction with location aspects, prevent the migration of any dangerous constituent into the ground water or surface water at any future time;

(II) The double liner and leak (leachate) detection, collection, and removal system, if the landfill must meet the requirements of WAC 173-303-665 (2)(h). If an exemption from the requirements for double liners and a leak detection, collection, and removal system or alternative design is sought as provided by WAC 173-303-665 (2)(j), (k) or (l), submit appropriate information;

(III) If the leak detection system is located in a saturated zone, submit detailed plans and an engineering report explaining the leak detection system design and operation, and the location of the saturated zone in relation to the leak detection system;

(IV) The construction quality assurance (CQA) plan if required under WAC 173-303-335;

(V) Proposed action leakage rate, with rationale, if required under WAC 173-303-665(8), and response action plan, if required under 173-303-665(9);

(B) Control of run-on;

(C) Control of run-off;

(D) Management of collection and holding facilities associated with run-on and run-off control systems; and

(E) Control of wind dispersal of particulate matter, where applicable;

(iii) Reserve.

(iv) A description of how each landfill, including the double liner system, leachate collection and removal system, cover systems, and appurtenances for control for run-on and run-off will be inspected in order to meet the requirements of WAC 173-303-665(4). This information must be included

in the inspection plan submitted under (a)(v) of this subsection;

(v) Detailed plans and an engineering report describing the final cover which will be applied to each landfill or landfill cell at closure in accordance with WAC 173-303-665 (6)(a), and a description of how each landfill will be maintained and monitored after closure in accordance with WAC 173-303-665 (6)(b) and (c). This information should be included in the closure and post-closure plans submitted under (a)(xiii) of this subsection;

(vi) If incompatible wastes, or incompatible wastes and materials will be landfilled, an explanation of how WAC 173-303-665(7) will be complied with;

(vii) A description of how each landfill will be designed and operated in order to comply with WAC 173-303-140.

(i) Specific Part B information requirements for miscellaneous units. Except as otherwise provided in WAC 173-303-680(1), owners and operators of facilities that treat, store, or dispose of dangerous waste in miscellaneous units must provide the following additional information:

(i) A detailed description of the unit being used or proposed for use, including the following:

(A) Physical characteristics, materials of construction, and dimensions of the unit;

(B) Detailed plans and engineering reports describing how the unit will be located, designed, constructed, operated, maintained, monitored, inspected, and closed to comply with the requirements of WAC 173-303-680 (2) and (3); and

(C) For disposal units, a detailed description of the plans to comply with the postclosure requirements of WAC 173-303-680(4).

(ii) Detailed hydrologic, geologic, and meteorologic assessments and land-use maps for the region surrounding the site that address and ensure compliance of the unit with each factor in the environmental performance standards of WAC 173-303-680(2). If the applicant can demonstrate that he does not violate the environmental performance standards of WAC 173-303-680(2) and the department agrees with such demonstration, preliminary hydrologic, geologic, and meteorologic assessments will suffice.

(iii) Information on the potential pathways of exposure of humans or environmental receptors to dangerous waste or dangerous constituents and on the potential magnitude and nature of such exposures.

(iv) For any treatment unit, a report on a demonstration of the effectiveness of the treatment based on laboratory or field data.

(v) Any additional information determined by the department to be necessary for evaluation of compliance of the unit with the environmental performance standards of WAC 173-303-680(2).

(j) Specific Part B information requirements for process vents. Except as otherwise provided in WAC 173-303-600(3), owners and operators of facilities that have process vents to which WAC 173-303-690 applies must provide the following additional information:

(i) For facilities that cannot install a closed-vent system and control device to comply with the provisions of WAC 173-303-690 on the effective date that the facility becomes subject to the provisions of WAC 173-303-690 or 40 CFR 265 Subpart AA incorporated by reference at WAC 173-303-

400 (3)(a), an implementation schedule as specified in 40 CFR section 264.1033 (a)(2).

(ii) Documentation of compliance with the process vent standards in 40 CFR section 264.1032, including:

(A) Information and data identifying all affected process vents, annual throughput and operating hours of each affected unit, estimated emission rates for each affected vent and for the overall facility (i.e., the total emissions for all affected vents at the facility), and the approximate location within the facility of each affected unit (e.g., identify the dangerous waste management units on a facility plot plan).

(B) Information and data supporting estimates of vent emissions and emission reduction achieved by add-on control devices based on engineering calculations or source tests. For the purpose of determining compliance, estimates of vent emissions and emission reductions must be made using operating parameter values (e.g., temperatures, flow rates, or concentrations) that represent the conditions that exist when the waste management unit is operating at the highest load or capacity level reasonably expected to occur.

(C) Information and data used to determine whether or not a process vent is subject to the requirements of 40 CFR section 264.1032.

(iii) Where an owner or operator applies for permission to use a control device other than a thermal vapor incinerator, catalytic vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system to comply with the requirements of 40 CFR 264.1032, and chooses to use test data to determine the organic removal efficiency or the total organic compound concentration achieved by the control device, a performance test plan as specified in 40 CFR 264.1035 (b)(3).

(iv) Documentation of compliance with 40 CFR 264.1033, including:

(A) A list of all information references and sources used in preparing the documentation.

(B) Records, including the dates, of each compliance test required by 40 CFR 264.1033(k).

(C) A design analysis, specifications, drawings, schematics, and piping and instrumentation diagrams based on the appropriate sections of "APTI Course 415: Control of Gaseous Emissions" (WAC 173-303-110 (3)(g)(viii)) or other engineering texts acceptable to the department that present basic control device design information. The design analysis will address the vent stream characteristics and control device operation parameters as specified in 40 CFR 264.1035 (b)(4)(iii).

(D) A statement signed and dated by the owner or operator certifying that the operating parameters used in the design analysis reasonably represent the conditions that exist when the dangerous waste management unit is or would be operating at the highest load or capacity level reasonably expected to occur.

(E) A statement signed and dated by the owner or operator certifying that the control device is designed to operate at an efficiency of 95 weight percent or greater unless the total organic emission limits of 40 CFR 264.1032(a) for affected process vents at the facility can be attained by a control device involving vapor recovery at an efficiency less than 95 weight percent.

(k) Specific Part B information requirements for equipment leaks. Except as otherwise provided in WAC

173-303-600(3), owners and operators of facilities that have equipment to which WAC 173-303-691 applies must provide the following additional information:

(i) For each piece of equipment to which WAC 173-303-691 applies:

(A) Equipment identification number and dangerous waste management unit identification.

(B) Approximate locations within the facility (e.g., identify the dangerous waste management unit on a facility plot plan).

(C) Type of equipment (e.g., a pump or pipeline valve).

(D) Percent by weight total organics in the hazardous waste stream at the equipment.

(E) Hazardous waste state at the equipment (e.g., gas/vapor or liquid).

(F) Method of compliance with the standard (e.g., "monthly leak detection and repair" or "equipped with dual mechanical seals").

(ii) For facilities that cannot install a closed-vent system and control device to comply with the provisions of WAC 173-303-691 on the effective date that the facility becomes subject to the provisions of WAC 173-303-691 or 40 CFR Part 265 Subpart BB incorporated by reference at WAC 173-303-400 (3)(a), an implementation schedule as specified in 40 CFR 264.1033 (a)(2).

(iii) Where an owner or operator applies for permission to use a control device other than a thermal vapor incinerator, catalytic vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system and chooses to use test data to determine the organic removal efficiency or the total organic compound concentration achieved by the control device, a performance test plan as specified in 40 CFR section 264.1035 (b)(3).

(iv) Documentation that demonstrates compliance with the equipment standards in 40 CFR sections 264.1052 to 264.1059. This documentation will contain the records required under 40 CFR 264.1064. The department may request further documentation before deciding if compliance has been demonstrated.

(v) Documentation to demonstrate compliance with 40 CFR section 264.1060 will include the following information:

(A) A list of all information references and sources used in preparing the documentation.

(B) Records, including the dates, of each compliance test required by 40 CFR 264.1033(j).

(C) A design analysis, specifications, drawings, schematics, and piping and instrumentation diagrams based on the appropriate sections of "ATPI Course 415: Control of Gaseous Emissions" (incorporated by reference as specified in WAC 173-303-110 (3)(g)(viii)) or other engineering texts acceptable to the department that present basic control device design information. The design analysis will address the vent stream characteristics and control device operation parameters as specified in 40 CFR 264.1035(b)(4)(iii).

(D) A statement signed and dated by the owner or operator certifying that the operating parameters used in the design analysis reasonably represent the conditions that exist when the dangerous waste management unit is operating at the highest load or capacity level reasonably expected to occur.

(E) A statement signed and dated by the owner or operator certifying that the control device is designed to operate at an efficiency of 95 weight percent or greater.

(I) Special Part B information requirements for drip pads.

Except as otherwise provided by WAC 173-303-600(3), owners and operators of dangerous waste treatment, storage, or disposal facilities that collect, store, or treat hazardous waste on drip pads must provide the following additional information:

(i) A list of hazardous wastes placed or to be placed on each drip pad.

(ii) If an exemption is sought to WAC 173-303-645, as provided by WAC 173-303-645(1), detailed plans and an engineering report describing how the requirements of WAC 173-303-645 (1)(b) will be met.

(iii) Detailed plans and an engineering report describing how the drip pad is or will be designed, constructed, operated and maintained to meet the requirements of WAC 173-303-675(4), including the as-built drawings and specifications. This submission must address the following items as specified in WAC 173-303-675(2):

(A) The design characteristics of the drip pad;

(B) The liner system;

(C) The leakage detection system, including the leak detection system and how it is designed to detect the failure of the drip pad or the presence of any releases of hazardous waste or accumulated liquid at the earliest practicable time;

(D) Practices designed to maintain drip pads;

(E) The associated collection system;

(F) Control of run-on to the drip pad;

(G) Control of run-off from the drip pad;

(H) The interval at which drippage and other materials will be removed from the associated collection system and a statement demonstrating that the interval will be sufficient to prevent overflow onto the drip pad;

(I) Procedures for cleaning the drip pad at least once every seven days to ensure the removal of any accumulated residues of waste or other materials, including but not limited to rinsing, washing with detergents or other appropriate solvents, or steam cleaning and provisions for documenting the date, time, and cleaning procedure used each time the pad is cleaned.

(J) Operating practices and procedures that will be followed to ensure that tracking of hazardous waste or waste constituents off the drip pad due to activities by personnel or equipment is minimized;

(K) Procedures for ensuring that, after removal from the treatment vessel, treated wood from pressure and nonpressure processes is held on the drip pad until drippage has ceased, including recordkeeping practices;

(L) Provisions for ensuring that collection and holding units associated with the run-on and run-off control systems are emptied or otherwise managed as soon as possible after storms to maintain design capacity of the system;

(M) If treatment is carried out on the drip pad, details of the process equipment used, and the nature and quality of the residuals.

(N) A description of how each drip pad, including appurtenances for control of run-on and run-off, will be inspected in order to meet the requirements of WAC 173-

303-675(4). This information should be included in the inspection plan submitted under (a)(v) of this subsection.

(O) A certification signed by an independent qualified, registered professional engineer, stating that the drip pad design meets the requirements of WAC 173-303-675 (4)(a) through (f).

(P) A description of how hazardous waste residues and contaminated materials will be removed from the drip pad at closure, as required under WAC 173-303-675 (6)(a). For any waste not to be removed from the drip pad upon closure, the owner or operator must submit detailed plans and an engineering report describing how WAC 173-303-665(6) will be complied with. This information should be included in the closure plan and, where applicable, the post-closure plan submitted under (a)(xiii) of this subsection.

(5) Construction. A person may begin physical construction of a new facility, or of new portions of an existing facility if the new portions would amount to reconstruction under interim status (WAC 173-303-805(7)), only after complying with WAC 173-303-281, submitting Part A and Part B of the permit application and receiving a final facility permit. All permit applications must be submitted at least one hundred eighty days before physical construction is expected to begin.

(6) Reapplications. Any dangerous waste facility with an effective final facility permit must submit a new application one hundred eighty days prior to the expiration date of the effective permit, unless the department grants a later date provided that such date will never be later than the expiration date of the effective permit.

(7) Continuation of expiring permits.

(a) When the owner/operator submits a timely application for a final facility permit and the application is determined by the department to be complete pursuant to subsection (8) of this section, the facility is allowed to continue operating under the expiring or expired permit until the effective date of the new permit.

(b) When the facility is not in compliance with the conditions of the expiring or expired permit, the department may choose to do any of the following:

(i) Initiate enforcement action based upon the permit which has been continued;

(ii) Issue a notice of intent to deny the new permit. If the permit is denied, the owner or operator would then be required to cease the activities authorized by the continued permit or be subject to enforcement action for operating without a permit;

(iii) Issue a new permit with appropriate conditions; and/or

(iv) Take other actions authorized by this chapter.

(8) Completeness. The department will not issue a final facility permit before receiving a complete application, except for permits by rule or emergency permits. An application for a permit is complete when the application form and any supplemental information has been submitted to the department's satisfaction. The completeness of any application for a permit will be judged independently of the status of any other permit application or permit for the same facility or activity. The department may deny a permit for the active life of a dangerous waste management facility or unit before receiving a complete application for a permit.

(9) Recordkeeping. Applicants must keep records of all data used to complete the permit applications, and any supplemental information submitted to the department for a period of at least three years from the date the application is signed.

(10) General permit conditions. All final facility permits will contain general permit conditions described in WAC 173-303-810.

(11) Permit duration.

(a) Final facility permits will be effective for a fixed term not to exceed ten years.

(b) The department may issue any final facility permit for a duration that is less than the full allowable term.

(c) The term of a final facility permit will not be extended beyond ten years, unless otherwise authorized under subsection (7) of this section.

(d) Each permit for a land disposal facility (~~may~~) will be reviewed by the department five years after the date of permit issuance or reissuance and will be modified as necessary, as provided in WAC 173-303-830(3).

(12) (~~Grounds for termination. The following are causes for terminating a final facility permit during its term:~~

(a) ~~Noncompliance by the permittee with any condition of the permit;~~

(b) ~~The permittee's failure in the application or during the permit issuance process to disclose fully all relevant facts, or the permittee's misrepresentation of any relevant facts at any time; or~~

(c) ~~A determination that the permitted activity endangers public health or the environment and the hazard can only be controlled by permit modification or termination)) Reserve.~~

(13) Grounds for denial. A permit application will be denied pursuant to the procedures in WAC 173-303-840 if it is determined that the proposed location and/or activity endangers public health and the environment as demonstrated by the permit applicant's failure to satisfy the performance standards of WAC 173-303-283.

(14) Permit changes. All final facility permits will be subject to the requirements of permit changes, WAC 173-303-830.

(15) Procedures for decision making. Issuance of final facility permits will be subject to the procedures for decision making described in WAC 173-303-840.

(16) Other requirements for final recycling facility permits. In lieu of issuing a final recycling facility permit, the department may, after providing opportunity for public comment in accordance with WAC 173-303-840, defer to a permit already issued under other statutory authority administered by the department (such as the State Water Pollution Control Act, chapter 90.48 RCW, the State Clean Air Act, chapter 70.94 RCW, etc.) which incorporates the requirements of this section, and WAC 173-303-500 through 173-303-525 for recycling facilities.

AMENDATORY SECTION (Amending Order 94-30, filed 10/19/95, effective 11/19/95)

WAC 173-303-807 Trial burns for dangerous waste incinerator final facility permits. (1) Purpose and applicability. For purposes of determining operational readiness and establishing conditions in final facility permits for dangerous waste incinerators, the department may approve

trial burns. Trial burns may not exceed seven hundred twenty hours operating time, except that the department may extend the duration of this operational period once, up to seven hundred twenty additional hours, at the request of the owner/operator of the incinerator when good cause is shown. The permit may be modified to reflect the extension according to WAC 173-303-830(4). The procedures for requesting and approving trial burns are described in:

(a) Subsection (10) of this section for existing incinerators with interim status permits; and

(b) Subsection (11) of this section for new incinerators and for incinerators with final facility permits in which the owner/operator wishes to burn new wastes not currently included in the permit.

(2) Trial burn plan. The trial burn must be conducted in accordance with a trial burn plan prepared by the applicant and approved by the department. The trial burn plan will then become a condition of the permit and will include the following information:

(a) An analysis of each waste or mixture of waste to be burned which includes:

(i) Heating value of the waste in the form and composition in which it will be burned;

(ii) Viscosity (if applicable), or description of physical form of the waste, and specific gravity of the waste;

(iii) An analysis identifying any dangerous organic constituents listed in WAC 173-303-9905, and any other dangerous constituents which, although not listed, caused the waste to be regulated as a dangerous waste, which are reasonably expected to be present in the waste to be burned. The constituents excluded from analysis must be identified and the basis for their exclusion stated. The waste analysis must rely on analytical techniques specified or referenced in WAC 173-303-110 (3)(a), or their equivalent;

(iv) An approximate quantification of the dangerous constituents identified in the waste, within the precision produced by the analytical methods specified or referenced in WAC 173-303-110 (3)(a); and

(v) A quantification of those dangerous constituents in the waste which may be designated as principal organic dangerous constituents (PODC) based on data submitted from other trial or operational burns which demonstrate compliance with the performance standard in WAC 173-303-670(4);

(b) A detailed engineering description of the incinerator for which the trial burn permit is sought including:

(i) Manufacturer's name and model number of incinerator (if available);

(ii) Type of incinerator;

(iii) Linear dimensions of the incinerator unit including the cross sectional area of the combustion chamber;

(iv) Description of the auxiliary fuel system (type/feed);

(v) Capacity of the prime air mover;

(vi) Description of automatic waste feed cutoff system(s);

(vii) Stack gas monitoring and pollution control equipment;

(viii) Nozzle and burner design;

(ix) Construction materials; and

(x) Location and description of temperature, pressure, and flow indicating and control devices;

(c) A detailed description of sampling and monitoring procedures, including sampling and monitoring locations in the system, the equipment to be used, sampling and monitoring frequency, and planned analytical procedures for sample analysis;

(d) A detailed test schedule for each waste for which the trial burn is planned including date(s), duration, quantity of waste to be burned, and other factors relevant to the department's decision under subsection (5) of this section;

(e) A detailed test protocol, including, for each waste identified, the ranges of temperature, waste feed rate, air feed rate, use of auxiliary fuel, and other relevant parameters that will be varied to affect the destruction and removal efficiency of the incinerator;

(f) A description of, and planned operating conditions for, any emission control equipment which will be used;

(g) Procedures for rapidly stopping waste feed, shutting down the incinerator, and controlling emissions in the event of an equipment malfunction;

(h) A detailed test protocol to sample and analyze the following for designation under WAC 173-303-070:

(i) Any incinerator ash residue collected in the incinerator; and

(ii) Any residues collected in the air pollution control devices; and

(i) Such other information as the department reasonably finds necessary to determine whether to approve the trial burn plan in light of the purposes of this section.

(3) Additional information required. The department, in reviewing the trial burn plan, will evaluate the adequacy of the information provided and may require the applicant to supplement this information, if necessary, to achieve the purposes of this section.

(4) Trial PODCs. Based on the waste analysis data in the trial burn plan, the department will specify as trial principal organic dangerous constituents (trial PODCs) those constituents for which destruction and removal efficiencies must be calculated during the trial burn. These trial PODCs will be specified by the department based on its estimate of the difficulty of incineration of the constituents identified in the waste analysis, the concentration or mass in the waste feed, and the dangerous waste constituent or constituents identified in WAC 173-303-9905, or identified as causing the waste to be regulated as a dangerous waste.

(5) Approval of the plan. The department will approve a trial burn plan if it finds that:

(a) The trial burn is likely to determine whether the incinerator performance standard required by WAC 173-303-670(4) can be met;

(b) The trial burn itself will not present an imminent hazard to public health or the environment;

(c) The trial burn will help the department to determine operating requirements to be specified under WAC 173-303-670(6); and

(d) The information sought in (a), (b), and (c) of this subsection cannot reasonably be developed through other means.

(6) Trial burns. During each approved trial burn (or as soon after the burn as is practicable), the applicant must make the following determinations:

(a) A quantitative analysis of the trial PODCs in the waste feed to the incinerator;

(b) A quantitative analysis of the exhaust gas for the concentration and mass emissions of the trial PODCs, O₂, hydrogen chloride (HCl), carbon monoxide (CO) and dangerous combustion byproducts, including the total mass emission rate of byproducts as a percent of the total mass feed rate of PODCs fed to the incinerator;

(c) A quantitative analysis of the scrubber water (if any), ash residues, and other residues, for the purpose of estimating the fate of the trial PODCs and whether they are designated according to WAC 173-303-070;

(d) A total mass balance of the trial PODCs in the waste;

(e) A computation of destruction and removal efficiency (DRE), in accordance with the DRE formula specified in WAC 173-303-670 (4)(a);

(f) If the HCl emission rate exceeds 1.8 kilograms of HCl per hour (4 pounds per hour), a computation of HCl removal efficiency in accordance with WAC 173-303-670 (4)(c)(i);

(g) A computation of particulate emissions, in accordance with WAC 173-303-670 (4)(c)(ii);

(h) An identification of sources of fugitive emissions and their means of control;

(i) A measurement of average, maximum, and minimum temperatures, and combustion gas velocity;

(j) A continuous measurement of carbon monoxide in the exhaust gas;

(k) An identification of any existing air emission standards where a state or local air pollution control authority has established emission standards and such standards are applicable to the incinerator; and

(l) Such other information as the department may specify as necessary to ensure that the trial burn will determine compliance with the performance standard of WAC 173-303-670(4), and to establish the operating conditions required by WAC 173-303-670(6).

(9) Certification. The applicant must submit to the department a certification that the trial burn has been carried out in accordance with the approved trial burn plan, and must submit the results of all determinations required by subsection (6) of this section. This submission must be made within thirty days of the completion of the trial burn, or later if approved by the department.

(8) Submission of data. All data collected during any trial burn must be submitted to the department following the completion of the trial burn.

(9) Signatures required. All submissions required under this section must be certified on behalf of the applicant by the signature of a person authorized to sign a permit application under WAC 173-303-810(12).

(10) Existing incinerators with interim status permits.

(a) The owner/operator of an existing incinerator currently operating under an interim status permit may, when required by the department (or when he chooses) to apply for a final facility permit, request the department to approve of a trial burn. The trial burn may be requested for the purposes of determining feasibility of compliance with the performance standards of WAC 173-303-670(4) and the operating conditions of WAC 173-303-670(6). If a trial burn is requested, the owner/operator must prepare and submit a trial burn plan and, upon approval by the department,

perform a trial burn in accordance with subsections (2) through (9) of this section.

(b) If the department approves the trial burn, it will issue a notice of interim status modification granting such approval and specifying the conditions applicable to the trial burn. The notice of modification will be a condition of the interim status permit. Note: The national emission standards for hazardous air pollutants may require review for a notice of construction. Owners and operators should consult chapter 173-400 WAC or local air pollution control agency regulations for applicability.

(c) If the trial burn is approved before submitting a final facility permit application, the owner/operator must complete the trial burn and submit the information described in subsection (6) of this section, with Part B of the permit application. If completion of this process conflicts with the date set for submission of Part B of the final facility permit application, the owner/operator must contact the department to extend the date for submitting the Part B or the trial burn results. If the applicant submits a trial burn plan with Part B of the final facility permit application, the department will specify in the notice of interim status modification issued under (b) of this subsection, a time period for conducting the trial burn and submitting the results. Trial burn results must be submitted prior to the issuance of the permit.

(11) New incinerators and new wastes.

(a)(i) The owner/operator of a new incinerator may submit with Part B of a final facility permit application a request for approval of a trial burn. This request must include a statement of why the trial burn is desirable, and a trial burn plan prepared in accordance with subsection (2) of this section.

(ii) The department will proceed to issue a final facility permit in accordance with WAC 173-303-806. The permit will include the trial burn plan, and will establish operating conditions for the trial burn including but not limited to those described in WAC 173-303-670(6). The time period for conducting the trial burn and submitting the results will also be specified in the permit.

(iii) After the trial burn has been completed and the results submitted to the department, the final facility permit will be modified in accordance with WAC 173-303-830(4) to establish the final operating requirements and performance standards for the incinerator.

(b) The owner/operator of an incinerator with a final facility permit who wishes to burn new wastes not currently included in his permit may request approval of a trial burn for the new wastes. The request and approval will be handled in the same way as described in (a) of this subsection, except that in lieu of issuing an entirely new final facility permit the department will modify the existing final facility permit in accordance with WAC 173-303-830.

AMENDATORY SECTION (Amending Order 94-30, filed 10/19/95, effective 11/19/95)

WAC 173-303-810 General permit conditions. (1) Purpose and applicability. This section sets forth the general permit conditions that are applicable to all permits, except interim status permits and permits by rule, to assure compliance with this chapter. If the conditions of this section are

incorporated in a permit by reference, a specific citation to this section must be given in the permit.

(2) Duty to comply. The permittee must comply with all conditions of his permit. Any permit noncompliance constitutes a violation and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. The permittee need not comply with the conditions of his permit to the extent and for the duration such noncompliance is authorized in an emergency permit.

(3) Duty to reapply. If the permittee wishes to continue an activity regulated by the permit after its expiration date, the permittee must apply for and obtain a new permit.

(4) Duty to halt or reduce activity. A permittee who has not complied with his permit, and who subsequently is subject to enforcement actions, may not argue that it would have been necessary to halt or reduce the permitted activities in order to maintain compliance with the conditions of the permit.

(5) Duty to mitigate. The permittee must take all steps required by the department to minimize or correct any adverse impact on the environment resulting from noncompliance with the permit.

(6) Proper operation and maintenance. The permittee must at all times properly operate and maintain all facilities and systems of treatment and control which are installed or used by the permittee to achieve compliance with the conditions of the permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of the permit.

(7) Permit actions. The permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, termination, notification of planned changes, or anticipated noncompliance, does not stay any permit condition.

(8) Effect of a permit.

(a) Compliance with a final facility permit during its term constitutes compliance for the purpose of enforcement with chapter 173-303 WAC except for permit modifications and those requirements not included in the permit which:

- (i) Become effective by statute;
- (ii) Are promulgated under 40 CFR Part 268 restricting the placement of dangerous waste in or on the land; or
- (iii) Are promulgated under WAC 173-303-650 through 173-303-665 regarding leak detection systems for new and replacement surface impoundment, waste pile, and landfill units, and lateral expansions of surface impoundment, waste pile, and landfill units. The leak detection system requirements include double liners, CQA programs, monitoring, action leakage rates, and response action plans, and will be implemented through the procedures of WAC 173-303-830 Class *1 permit modifications.

(b) The issuance of a permit does not convey any property rights of any sort, or any exclusive privilege.

(c) The issuance of a permit does not authorize any injury to persons or property or invasion of other private

rights, or any infringement of state or local laws or regulations.

(9) Duty to provide information. The permittee must furnish to the department, within a reasonable time, any information which it may request to determine whether cause exists for modifying, revoking and reissuing, or terminating a permit, or to determine compliance with a permit. The permittee must also furnish to the department, upon request, copies of records required to be kept by the permit.

(10) Inspection and entry. The permittee must allow representatives of the department, upon the presentation of proper credentials, to:

(a) Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of the permit;

(b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;

(c) Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under the permit; and

(d) Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by chapter 173-303 WAC, any substances or parameters at any location.

(11) Monitoring and monitoring records.

(a) ~~((All permits will specify:~~

~~(i) Requirements concerning the proper use, maintenance, and installation, when appropriate, of monitoring equipment or methods; and~~

~~(ii) Required monitoring including type, intervals, and frequency sufficient to yield data which are representative of the monitored activity including, when appropriate, continuous monitoring-)) Reserve.~~

(b) Samples and measurements taken for the purpose of monitoring must be representative of the monitored activity.

(c) The permittee must retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least three years from the date of the sample, measurement, report, or application. This period may be extended by request of the department at any time.

(d) Records of monitoring information must include:

(i) The date, exact place, and time of sampling or measurements;

(ii) The individual(s) who performed the sampling or measurements;

(iii) The date(s) analyses were performed;

(iv) The individual(s) who performed the analyses;

(v) The analytical techniques or methods used; and

(vi) The results of such analyses.

(e) The permittee must maintain ~~((all))~~ records ~~((of))~~ from all ground water ((quality and)) monitoring wells and associated ground water surface elevations for the active life of the facility, and for disposal facilities for the post-closure period as well.

(12) Signatory requirement. All applications, reports, or information submitted to the department must be signed in

accordance with this subsection and must be certified according to subsection (13) of this section.

(a) Applications. When a dangerous waste facility is owned by one person, but is operated by another person, then the operator will be the permit applicant and responsible for developing the permit application and all accompanying materials, except that the owner must also sign and certify the permit application. Permit applications must be signed as follows:

(i) For a corporation: By a responsible corporate officer. For the purposes of this subsection, a responsible corporate officer means:

(A) A president, secretary, treasurer, or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or

(B) The manager of one or more manufacturing, production or operating facilities employing more than two hundred fifty persons or having gross annual sales or expenditures exceeding twenty-five million dollars (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;

(ii) For a partnership or sole proprietorship: By a general partner or the proprietor, respectively; or

(iii) For a municipality, state, federal, or other public agency: By either a principal executive officer or ranking elected official. For purposes of this subsection, a principal executive officer of a federal agency includes:

(A) The chief executive officer of the agency; or

(B) A senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.

(b) Reports. All reports required by permits and other information requested by the department must be signed by a person described in (a) of this subsection, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

(i) The authorization is made in writing by a person described in (a) of this subsection;

(ii) The authorization specifies either an individual or a position having responsibility for overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, or position of equivalent responsibility. (A duly authorized representative may thus be either a named individual or any individual occupying a named position); and

(iii) The written authorization is submitted to the department.

(c) Changes to authorization. If an authorization under (b) of this subsection is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of (b) of this subsection must be submitted to the department prior to or together with any reports, information, or applications to be signed by an authorized representative.

(13) Certification.

(a) Except as provided in (b) of this subsection, any person signing the documents required under (a) or (b) of subsection (12) of this section must make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

(b) When a dangerous waste facility is owned by one person, but is operated by another person, then the permit application must be certified as follows:

(i) The operator must make the certification described under (a) of this subsection; and

(ii) The owner must make the following certification:

"I certify under penalty of law that I own the real property described in, and am aware of the contents of, this permit application, and that I have received a copy of this application. As owner of the real property, I understand that I am responsible for complying with any requirements of chapter 173-303 WAC with which only I am able to comply, and that there are significant penalties for failure to comply with such requirements."

(14) Reporting. The following reports must be provided:

(a) Planned changes. The permittee must give notice to the department as soon as possible of any planned physical alterations or additions to the permitted facility. For a new TSD facility and for a facility being modified, the permittee may not treat, store, or dispose of dangerous waste in the new or modified portion of the facility until:

(i) The permittee has submitted to the department by certified mail or hand delivery a letter signed by the permittee and a registered professional engineer stating that the facility has been constructed or modified in compliance with the permit; and either

(Note: In certifying construction or modification, the independent qualified registered professional engineer is responsible only for certifying those portions of the facility which are identified in chapter 173-303 WAC as specifically requiring certification by an independent registered professional engineer.)

~~((and either))~~

(ii) The department has inspected the modified or newly constructed facility and finds it is in compliance with the conditions of the permit; or

(iii) Within fifteen days of the date of submission of the letter, the permittee has not received notice from the department of its intent to inspect, prior inspection is waived and the permittee may commence treatment, storage, or disposal of dangerous waste.

(b) Anticipated noncompliance. The permittee must give advance notice to the department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements. For a new facility, the permittee may not treat, store, or dispose of dangerous waste; and for a facility being modified, the permittee may not treat, store, or dispose of dangerous waste in the modified portion of the facility except as provided in WAC 173-303-830(4).

(c) Transfers. The permit is not transferable to any person except after notice to the department. The department may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary.

(d) Monitoring reports. Monitoring results (including monitoring of the facility's impacts as required by the applicable sections of this chapter) must be reported at the intervals specified elsewhere in the permit.

(e) Compliance schedules. Reports of permit compliance or noncompliance or any progress reports on interim and final permit requirements contained in any compliance schedule must be submitted no later than fourteen days following each scheduled date.

(f) Immediate reporting. The permittee must immediately report any noncompliance which may endanger health or the environment. Information must be provided orally to the department as soon as the permittee becomes aware of the circumstances. A written submission must also be provided within five days of the time the permittee becomes aware of the circumstances provided that the department may waive the written submission requirement in favor of a written report, to be submitted within fifteen days. The written submission must contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

Information which must be reported immediately must include:

(i) Release of dangerous waste that may cause an endangerment to drinking water supplies or ground or surface waters;

(ii) Any information of a release or discharge of dangerous waste, fire, or explosion from the permitted facility which could threaten the environment or human health outside the facility;

(iii) The following description of any such occurrence:

(A) Name, address, and telephone number of the owner or operator;

(B) Name, address, and telephone number of the facility;

(C) Date, time, and type of incident;

(D) Name and quantity of material(s) involved;

(E) The extent of injuries, if any;

(F) An assessment of actual or potential hazards to the environment and human health outside the facility, where this is applicable; and

(G) Estimated quantity and disposition of recovered material that resulted from the incident.

(g) Other noncompliance. The permittee must report all instances of noncompliance not reported under (d), (e), and (f) of this subsection, at the time monitoring reports are submitted. The reports shall contain the information listed in (f) of this subsection.

(h) Other information. Where the permittee becomes aware that he failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the department, he must promptly submit this information.

(i) Other reports. In addition, the following reports are required when appropriate:

(i) Manifest discrepancy report as required by WAC 173-303-370(4);

(ii) Unmanifested waste report as required by WAC 173-303-390(1); and

(iii) Annual report as required by WAC 173-303-390(2).

(15) Confidentiality.

(a) Information submitted by the owner/operator of a facility identified as confidential will be treated in accordance with chapter 42.17 RCW and RCW 43.21A.160.

(b) Proprietary information can be held confidential if:

(i) The processes are unique to the owner/operator's business or the owner/operator's competitive position may be adversely affected if the information is released to the public or to a competitor; and

(ii) The director determines that granting the owner/operator's request is not detrimental to the public interest and is in accord with the policies and purposes of chapter 43.21A RCW.

(c) Claims of confidentiality for permit application information must be substantiated at the time the application is submitted and in the manner prescribed in the application instructions. Claims of confidentiality for the name and address of any permit applicant will be denied.

(d) If a submitter does not provide substantiation, the department will notify the owner/operator by certified mail of the requirement to do so. If the department does not receive the substantiation within ten days after the submitter receives the notice, the department will place the unsubstantiated information in the public file.

(e) The department will determine if the owner/operator's request meets the confidential information criteria.

AMENDATORY SECTION (Amending Order DE 83-36, filed 4/18/84)

WAC 173-303-815 ((Reserved)) Facility-specific permit conditions. (1) Requirements for recording and reporting of monitoring results.

All permits must specify:

(a) Requirements concerning the proper use, maintenance, and installation, when appropriate, of monitoring equipment or methods (including biological monitoring methods when appropriate);

(b) Required monitoring including type, intervals, and frequency sufficient to yield data which are representative of the monitored activity including, when appropriate, continuous monitoring;

(c) Applicable reporting requirements based upon the impact of the regulated activity and as specified in this chapter. Reporting must be no less frequent than specified in this chapter.

(2) Establishing permit conditions.

(a) In addition to conditions required in all permits (WAC 173-303-810(1) through (14)), the director will establish conditions, as required on a case-by-case basis, in permits under WAC 173-303-806(11) (duration of permits), WAC 173-303-815(3) (Schedules of compliance), and WAC 173-303-815(1) (monitoring).

(b)(i) Each permit must include permit conditions necessary to achieve compliance with the Hazardous Waste

Management Act chapter 70.105 RCW, this chapter and RCRA Subtitle C. In satisfying this provision, the director may incorporate applicable requirements of this chapter directly into the permit or establish other permit conditions that are based on this chapter.

(ii) Each permit issued under this chapter must contain terms and conditions as the director determines necessary to protect human health and the environment.

(iii) For a state-issued permit, an applicable requirement is a state statutory or regulatory requirement that takes effect prior to final administrative disposition of a permit. (Note: For a permit issued by EPA, an applicable requirement is a statutory or regulatory requirement (including any interim final regulation) which takes effect prior to the issuance of the permit (except as provided in 40 CFR Section 124.86(c) for RCRA permits being processed under Subpart E or F of part 124). 40 CFR Section 124.14 (reopening of comment period) provides a means for reopening EPA permit proceedings at the discretion of the director where new requirements become effective during the permitting process and are of sufficient magnitude to make additional proceedings desirable). For state and EPA administered programs, an applicable requirement is also any requirement that takes effect prior to the modification or revocation and reissuance of a permit, to the extent allowed in WAC 173-303-830(3).

(iv) New or reissued permits, and to the extent allowed under WAC 173-303-830(3), modified or revoked and reissued permits, must incorporate each of the applicable requirements referenced in this subsection and in WAC 173-303-810(11).

(v) Incorporation. All permit conditions must be incorporated either expressly or by reference. If incorporated by reference, a specific citation to the applicable regulations or requirements must be given in the permit.

(3) Schedules of compliance.

(a) The permit may, when appropriate, specify a schedule of compliance leading to compliance with this chapter.

(i) Time for compliance. Any schedules of compliance under this section require compliance as soon as possible.

(ii) Interim dates. Except as provided in (b)(i)(B) of this subsection, if a permit establishes a schedule of compliance which exceeds one year from the date of permit issuance, the schedule must set forth interim requirements and the dates for their achievement.

(A) The time between interim dates must not exceed one year.

(B) If the time necessary for completion of any interim requirement is more than one year and is not readily divisible into stages for completion, the permit must specify interim dates for the submission of reports of progress toward completion of the interim requirements and indicate a projected completion date.

(iii) Reporting. The permit must be written to require that no later than fourteen days following each interim date and the final date of compliance, the permittee must notify the director in writing, of its compliance or noncompliance with the interim or final requirements.

(b) Alternative schedules of compliance. A dangerous waste permit applicant or permittee may cease conducting regulated activities (by receiving a terminal volume of hazardous waste and, for treatment and storage dangerous

waste management facilities, closing pursuant to applicable requirements; and, for disposal dangerous waste management facilities, closing and conducting post-closure care pursuant to applicable requirements) rather than continue to operate and meet permit requirements as follows:

(i) If the permittee decides to cease conducting regulated activities at a given time within the term of a permit which has already been issued:

(A) The permit may be modified to contain a new or additional schedule leading to timely cessation of activities; or

(B) The permittee shall cease conducting permitted activities before noncompliance with any interim or final compliance schedule requirement already specified in the permit.

(ii) If the decision to cease conducting regulated activities is made before issuance of a permit whose term will include the termination date, the permit shall contain a schedule leading to termination which will ensure timely compliance with applicable requirements.

(iii) If the permittee is undecided whether to cease conducting regulated activities, the director may issue or modify a permit to contain two schedules as follows:

(A) Both schedules shall contain an identical interim deadline requiring a final decision on whether to cease conducting regulated activities no later than a date which ensures sufficient time to comply with applicable requirements in a timely manner if the decision is to continue conducting regulated activities;

(B) One schedule shall lead to timely compliance with applicable requirements;

(C) The second schedule shall lead to cessation of regulated activities by a date which will ensure timely compliance with applicable requirements;

(D) Each permit containing two schedules shall include a requirement that after the permittee has made a final decision under (b)(iii)(A) of this subsection it shall follow the schedule leading to compliance if the decision is to continue conducting regulated activities, and follow the schedule leading to termination if the decision is to cease conducting regulated activities.

(iv) The applicant's or permittee's decision to cease conducting regulated activities shall be evidenced by a firm public commitment satisfactory to the director, such as resolution of the board of directors of a corporation.

AMENDATORY SECTION (Amending Order 94-30, filed 10/19/95, effective 11/19/95)

WAC 173-303-830 Permit changes. (1) Purpose and applicability. This section describes the types of permit changes that may be made to all permits issued by the ((department)) director. This section does not apply to permits by rule or interim status permits.

(2) Transfer of permits.

(a) A permit may be transferred by the permittee to a new owner or operator only if the permit has been modified or revoked and reissued (under (b) of this subsection or subsection (3) of this section) to identify the new permittee and incorporate such other requirements as may be necessary under the appropriate act.

(b) Changes in the ownership or operational control of a facility may be made as a Class 1 modification with prior written approval of the ((department)) director in accordance with subsection (4) of this section. The new owner or operator must submit a revised permit application no later than ninety days prior to the scheduled change. A written agreement containing a specific date for transfer of permit responsibility between the current and new permittees must also be submitted to the ((department)) director. When a transfer of ownership or operational control occurs, the old owner or operator must comply with the requirements of WAC 173-303-620 (Financial requirements) until the new owner or operator has demonstrated that he or she is complying with the financial requirements. The new owner or operator must demonstrate compliance with the financial requirements within six months of the date of the change of ownership or operational control of the facility. Upon demonstration to the ((department)) director by the new owner or operator of compliance with the financial requirements, the ((department)) director will notify the old owner or operator that he or she no longer needs to comply with the financial requirements as of the date of demonstration.

(3) Modification or revocation and reissuance of permits. When the ((department)) director receives any information (for example, inspects the facility, receives information submitted by the permittee as required in the permit, receives a request for revocation and reissuance, or conducts a review of the permit file), the ((department)) director may determine whether or not one or more of the causes listed in (a) and (b) of this subsection for modification or revocation and reissuance or both exist. If cause exists, the ((department)) director may modify or revoke and reissue the permit accordingly, subject to the limitations of (c) of this subsection, and may request an updated application if necessary. When a permit is modified, only the conditions subject to modification are reopened. All other aspects of the existing permit remain in effect for the duration of the unmodified permit. If a permit is revoked and reissued, the entire permit is reopened and subject to revision and the permit is reissued for a new term. During any revocation and reissuance proceeding, the permittee must comply with all conditions of the existing permit until a new final permit is reissued. If cause does not exist under this subsection, the ((department)) director will not modify or revoke and reissue the permit, except on request of the permittee. If a permit modification is requested by the permittee, the ((department)) director will approve or deny the request according to the procedures of subsection (4) of this section. Otherwise, a draft permit must be prepared and public review provided in accordance with WAC 173-303-840.

(a) Causes for modification. The following are causes for modification, but not revocation and reissuance, of permits ~~(, unless agreed to or requested by the permittee);~~ the following may be causes for revocation and reissuance, as well as modification, when the permittee requests or agrees:

(i) Alterations. There are material and substantial alterations or additions to the permitted facility or activity which occurred after permit issuance which justify the application of permit conditions that are different or absent in the existing permit;

(ii) Information. Permits may be modified during their terms if the ((department)) director receives information that was not available at the time of permit issuance (other than revised regulations, guidance, or test methods) and which would have justified the application of different permit conditions at the time of issuance;

(iii) New statutory requirements or regulations. The standards or regulations on which the permit was based have been changed by statute, through ~~((promulgation))~~ adoption of new or amended standards or regulations or by judicial decision after the permit was issued. ~~((Permits may be modified during their terms for this cause as follows:~~

~~(A) The department may modify the permit when the standards or regulations on which the permit was based have been changed by statute or amended standards or regulations.~~

~~(B) Permittee may request modification when:~~

~~(I) The permit condition requested to be modified was based on an effective regulation; and~~

~~(II) The department has revised, withdrawn, or modified that portion of the regulation on which the permit condition was based; and either~~

~~a. The department decides to modify the permit because there would be a potential threat to public health or the environment if the permit does not incorporate the requirements of the amended regulation; or~~

~~b. A permittee requests modification within ninety days after the date the regulation amendments are adopted;))~~

(iv) Compliance schedules. The ((department)) director determines good cause exists for modification of a compliance schedule, such as an act of God, strike, flood, or materials shortage, or other events over which the permittee has little or no control and for which there is no reasonably available remedy;

~~(v) ((Closure plans or postclosure. When modification of a closure or postclosure plan is required under WAC 173-303-610 (3) or (8);~~

~~(vi) Revocation of changes approved prior to notice of closure. After the department receives the notification of expected closure under WAC 173-303-610(3), the department may determine that previously approved changes are no longer warranted. These include:~~

~~(A) Extension of the ninety or one hundred eighty day periods under WAC 173-303-610(4);~~

~~(B) Modification of the thirty year postclosure period under WAC 173-303-610(7);~~

~~(C) Continuation of security requirements under WAC 173-303-610(7); or~~

~~(D) Permission to disturb the integrity of the containment system under WAC 173-303-610(7);~~

~~(vii) When the permittee has filed a request under WAC 173-303-620 for a variance to the level of financial responsibility or when the department demonstrates under WAC 173-303-620 that an upward adjustment of the level of financial responsibility is required;~~

~~(viii) When the corrective action program specified in the permit under WAC 173-303-645 has not brought the regulated unit into compliance with the ground water protection standard within a reasonable period of time;~~

~~(ix) To include a detection monitoring program meeting the requirements of WAC 173-303-645, when the owner or operator has been conducting a compliance monitoring program under WAC 173-303-645 or a corrective action~~

program under WAC 173-303-645 and compliance period ends before the end of the postclosure care period for the unit;

~~(x) When a permit requires a compliance monitoring program under WAC 173-303-645, but monitoring data collected prior to permit issuance indicate that the facility is exceeding the ground water protection standard;~~

~~(xi) To include conditions applicable to units at a facility that were not previously included in the facility's permit;~~

~~(xii) When a land treatment unit is not achieving complete treatment of dangerous constituents under its current permit conditions; or~~

~~(xiii)) Notwithstanding any other provision in this section, when a permit for a land disposal facility is reviewed by the ((department)) director under 173-303-806 (11)(d), the ((department)) director will modify the permit as necessary to assure that the facility continues to comply with the currently applicable requirements in this chapter.~~

(b) Causes for modification or revocation and reissuance. The following are causes to modify, or alternatively, revoke and reissue a permit:

(i) Cause exists for termination under WAC ((473-303-806(12))) 173-303-830(5) for final facility permits, and the ((department)) director determines that modification or revocation and reissuance is appropriate; or

(ii) The ((department)) director has received notification of a proposed transfer of the permit.

~~(c) ((Facility siting.—Suitability of the facility location will not be considered at the time of permit modification or revocation and reissuance unless new information or standards indicate that a threat to human health or the environment exists which was unknown at the time of permit issuance.)) Reserve.~~

(4) Permit modification at the request of the permittee.

(a) Class 1 modifications.

(i) Except as provided in (a)(ii) of this subsection, the permittee may put into effect Class 1 modifications listed in Appendix I of this section under the following conditions:

(A) The permittee must notify the ((department)) director concerning the modification by certified mail or other means that establish proof of delivery within seven calendar days after the change is put into effect. This notice must specify the changes being made to permit conditions or supporting documents referenced by the permit and must explain why they are necessary. Along with the notice, the permittee must provide the applicable information required by WAC 173-303-805, 173-303-806, 173-303-807, and 173-303-808.

(B) The permittee must send a notice of the modification to all persons on the facility mailing list, maintained by the ((department)) director in accordance with WAC 173-303-840 (3)(e)(i)(D), and the appropriate units of state and local government, as specified in WAC 173-303-840 (3)(e)(i)(E). This notification must be made within ninety calendar days after the change is put into effect. For the Class 1 modifications that require prior ((department)) director approval, the notification must be made within ninety calendar days after the ((department)) director approves the request.

(C) Any person may request the ((department)) director to review, and the ((department)) director may for cause

reject, any Class 1 modification. The ((department)) director must inform the permittee by certified mail that a Class 1 modification has been rejected, explaining the reasons for the rejection. If a Class 1 modification has been rejected, the permittee must comply with the original permit conditions.

(ii) Class 1 permit modifications identified in Appendix I by an asterisk may be made only with the prior written approval of the ((department)) director.

(iii) For a Class 1 permit modification, the permittee may elect to follow the procedures in (b) of this subsection for Class 2 modifications instead of the Class 1 procedures. The permittee must inform the ((department)) director of this decision in the notice required in (b)(i) of this subsection.

(b) Class 2 modifications.

(i) For Class 2 modifications, listed in Appendix I of this section, the permittee must submit a modification request to the ((department)) director that:

(A) Describes the exact change to be made to the permit conditions and supporting documents referenced by the permit;

(B) Identifies that the modification is a Class 2 modification;

(C) Explains why the modification is needed; and

(D) Provides the applicable information required by WAC 173-303-805, 173-303-806, 173-303-807, and 173-303-808.

(ii) The permittee must send a notice of the modification request to all persons on the facility mailing list maintained by the ((department)) director and to the appropriate units of state and local government as specified in WAC 173-303-840 (3)(e)(i)((D)) (E) and must publish this notice in a major local newspaper of general circulation. This notice must be mailed and published within seven days before or after the date of submission of the modification request, and the permittee must provide to the ((department)) director evidence of the mailing and publication. The notice must include:

(A) Announcement of a sixty-day comment period, in accordance with (b)(v) of this subsection, and the name and address of a departmental contact to whom comments must be sent;

(B) Announcement of the date, time, and place for a public meeting held in accordance with (b)(iv) of this subsection;

(C) Name and telephone number of the permittee's contact person;

(D) Name and telephone number of a departmental contact person;

(E) Location where copies of the modification request and any supporting documents can be viewed and copied; and

(F) The following statement: "The permittee's compliance history during the life of the permit being modified is available from the department of ecology contact person."

(iii) The permittee must place a copy of the permit modification request and supporting documents in a location accessible to the public in the vicinity of the permitted facility.

(iv) The permittee must hold a public meeting no earlier than fifteen days after the publication of the notice required in (b)(ii) of this subsection and no later than fifteen days before the close of the sixty-day comment period. The

meeting must be held to the extent practicable in the vicinity of the permitted facility.

(v) The public will be provided sixty days to comment on the modification request. The comment period will begin on the date the permittee publishes the notice in the local newspaper. Comments should be submitted to the department of ecology contact identified in the public notice.

(vi)(A) No later than ninety days after receipt of the notification request, the ((department)) director must:

(I) Approve the modification request, with or without changes, and modify the permit accordingly;

(II) Deny the request;

(III) Determine that the modification request must follow the procedures in (c) of this subsection for Class 3 modifications for the following reasons:

(AA) There is significant public concern about the proposed modification; or

(BB) The complex nature of the change requires the more extensive procedures of Class 3;

(IV) Approve the request, with or without changes, as a temporary authorization having a term of up to one hundred eighty days; or

(V) Notify the permittee that he or she will decide on the request within the next thirty days.

(B) If the ((department)) director notifies the permittee of a thirty-day extension for a decision, the ((department)) director must, no later than one hundred twenty days after receipt of the modification request:

(I) Approve the modification request, with or without changes, and modify the permit accordingly;

(II) Deny the request; or

(III) Determine that the modification request must follow the procedures in (c) of this subsection for Class 3 modifications for the following reasons:

(AA) There is significant public concern about the proposed modification; or

(BB) The complex nature of the change requires the more extensive procedures of Class 3.

(IV) Approve the request, with or without changes, as a temporary authorization having a term of up to one hundred eighty days.

(C) If the ((department)) director fails to make one of the decisions specified in (b)(vi)(B) of this subsection by the one hundred twentieth day after receipt of the modification request, the permittee is automatically authorized to conduct the activities described in the modification request for up to one hundred eighty days, without formal departmental action. The authorized activities must be conducted as described in the permit modification request and must be in compliance with all appropriate standards of 40 CFR Part 265 (as referenced by WAC 173-303-400). If the ((department)) director approves, with or without changes, or denies the modification request during the term of the temporary or automatic authorization provided for in (b)(vi)(A), (B), or (C) of this subsection, such action cancels the temporary or automatic authorization.

(D)(I) In the case of an automatic authorization under (b)(vi)(C) of this subsection, or a temporary authorization under (b)(vi)(A)(IV) or (B)(IV) of this subsection, if the ((department)) director has not made a final approval or denial of the modification request by the date fifty days prior to the end of the temporary or automatic authorization, the

permittee must within seven days of that time send a notification to persons on the facility mailing list, and make a reasonable effort to notify other persons who submitted written comments on the modification request, that:

(AA) The permittee has been authorized temporarily to conduct the activities described in the permit modification request; and

(BB) Unless the ((department)) director acts to give final approval or denial of the request by the end of the authorization period, the permittee will receive authorization to conduct such activities for the life of the permit.

(II) If the owner/operator fails to notify the public by the date specified in (b)(vi)(D)(I) of this subsection, the effective date of the permanent authorization will be deferred until fifty days after the owner/operator notifies the public.

(E) Except as provided in (b)(vi)(G) of this subsection, if the ((department)) director does not finally approve or deny a modification request before the end of the automatic or temporary authorization period or reclassify the modification as a Class 3, the permittee is authorized to conduct the activities described in the permit modification request for the life of the permit unless modified later under subsection (3) or (4) of this section. The activities authorized under this subsection (b)(vi)(E) must be conducted as described in the permit modification request and must be in compliance with all appropriate standards of 40 CFR Part 265 (as referenced by WAC 173-303-400).

(F) In making a decision to approve or deny a modification request, including a decision to issue a temporary authorization or to reclassify a modification as a Class 3, the ((department)) director must consider all written comments submitted during the public comment period and must respond in writing to all significant comments in his or her decision.

(G) With the written consent of the permittee, the ((department)) director may extend indefinitely or for a specified period the time periods for final approval or denial of a modification request or for reclassifying a modification as a Class 3.

(vii) The ((department)) director may deny or change the terms of a Class 2 permit modification request under (b)(6)(i) through (iii) of this subsection for the following reasons:

(A) The modification request is incomplete;

(B) The requested modification does not comply with the appropriate requirements of WAC 173-303-280 through 173-303-395 and 173-303-600 through 173-303-680 or other applicable requirements; or

(C) The conditions of the modification fail to protect human health and the environment.

(viii) The permittee may perform any construction associated with a Class 2 permit modification request beginning sixty days after the submission of the request unless the ((department)) director establishes a later date for commencing construction and informs the permittee in writing before day sixty.

(c) Class 3 modifications.

(i) For Class 3 modifications listed in Appendix I of this section, the permittee must submit a modification request to the ((department)) director that:

(A) Describes the exact change to be made to the permit conditions and supporting documents referenced by the permit;

(B) Identifies that the modification is a Class 3 modification;

(C) Explains why the modification is needed; and

(D) Provides the applicable information required by WAC 173-303-805, 173-303-806, 173-303-807, and 173-303-808.

(ii) The permittee must send a notice of the modification request to all persons on the facility mailing list maintained by the ((department)) director and to the appropriate units of state and local government as specified in WAC 173-303-840 (3)(e)(i)(D) and must publish this notice in a major local newspaper of general circulation. This notice must be mailed and published within seven days before or after the date of submission of the modification request, and the permittee must provide to the ((department)) director evidence of the mailing and publication. The notice must include:

(A) Announcement of a sixty-day comment period, and a name and address of an agency contact to whom comments must be sent;

(B) Announcement of the date, time, and place for a public meeting on the modification request, in accordance with (c)(4) of this subsection;

(C) Name and telephone number of the permittee's contact person;

(D) Name and telephone number of a departmental contact person;

(E) Location where copies of the modification request and any supporting documents can be viewed and copied; and

(F) The following statement: "The permittee's compliance history during the life of the permit being modified is available from the department of ecology contact person."

(iii) The permittee must place a copy of the permit modification request and supporting documents in a location accessible to the public in the vicinity of the permitted facility.

(iv) The permittee must hold a public meeting no earlier than fifteen days after the publication of the notice required in (c)(ii) of this subsection and no later than fifteen days before the close of the sixty-day comment period. The meeting must be held to the extent practicable in the vicinity of the permitted facility.

(v) The public will be provided at least sixty days to comment on the modification request. The comment period will begin on the date the permittee publishes the notice in the local newspaper. Comments should be submitted to the department of ecology contact identified in the notice.

(vi) After the conclusion of the sixty-day comment period, the ((department)) director must grant or deny the permit modification request according to the permit modification procedures of WAC 173-303-840. In addition, the ((department)) director must consider and respond to all significant written comments received during the sixty-day comment period.

(d) Other modifications.

(i) In the case of modifications not explicitly listed in Appendix I of this section, the permittee may submit a Class 3 modification request to the department, or he or she may

request a determination by the ((department)) director that the modification should be reviewed and approved as a Class 1 or Class 2 modification. If the permittee requests that the modification be classified as a Class 1 or 2 modification, he or she must provide the department with the necessary information to support the requested classification.

(ii) The ((department)) director will make the determination described in (d)(i) of this subsection as promptly as practicable. In determining the appropriate class for a specific modification, the ((department)) director will consider the similarity of the modification to other modifications codified in Appendix I and the following criteria:

(A) Class 1 modifications apply to minor changes that keep the permit current with routine changes to the facility or its operation. These changes do not substantially alter the permit conditions or reduce the capacity of the facility to protect human health or the environment. In the case of Class 1 modifications, the ((department)) director may require prior approval.

(B) Class 2 modifications apply to changes that are necessary to enable a permittee to respond, in a timely manner, to:

(I) Common variations in the types and quantities of the wastes managed under the facility permit;

(II) Technological advancements; and

(III) Changes necessary to comply with new regulations, where these changes can be implemented without substantially changing design specifications or management practices in the permit.

(C) Class 3 modifications substantially alter the facility or its operation.

(e) Temporary authorizations.

(i) Upon request of the permittee, the ((department)) director may, without prior public notice and comment, grant the permittee a temporary authorization in accordance with this subsection. Temporary authorizations must have a term of not more than one hundred eighty days.

(ii)(A) The permittee may request a temporary authorization for:

(I) Any Class 2 modification meeting the criteria in (e)(iii)(B) of this subsection; and

(II) Any Class 3 modification that meets the criteria in (e)(iii)(B)(I) or (II) of this subsection; or that meets the criteria in (e)(iii)(B)(III) through (V) of this subsection and provides improved management or treatment of a dangerous waste already listed in the facility permit.

(B) The temporary authorization request must include:

(I) A description of the activities to be conducted under the temporary authorization;

(II) An explanation of why the temporary authorization is necessary; and

(III) Sufficient information to ensure compliance with the standards in WAC 173-303-280 through 173-303-395 and 173-303-600 through 173-303-680.

(C) The permittee must send a notice about the temporary authorization request to all persons on the facility mailing list maintained by the ((department)) director and to appropriate units of state and local governments as specified in WAC 173-303-840 (3)(e)(i)(D). This notification must be made within seven days of submission of the authorization request.

(iii) The ((department)) director will approve or deny the temporary authorization as quickly as practical. To issue a temporary authorization, the ((department)) director must find:

(A) The authorized activities are in compliance with the standards of WAC 173-303-280 through 173-303-395 and 173-303-600 through 173-303-680.

(B) The temporary authorization is necessary to achieve one of the following objectives before action is likely to be taken on a modification request:

(I) To facilitate timely implementation of closure or corrective action activities;

(II) To allow treatment or storage in tanks, containers, or in containment buildings in accordance with 40 CFR Part 268;

(III) To prevent disruption of ongoing waste management activities;

(IV) To enable the permittee to respond to sudden changes in the types or quantities of the wastes managed under the facility permit; or

(V) To facilitate other changes to protect human health and the environment.

(iv) A temporary authorization may be reissued for one additional term of up to one hundred eighty days provided that the permittee has requested a Class 2 or 3 permit modification for the activity covered in the temporary authorization, and:

(A) The reissued temporary authorization constitutes the ((department's)) director's decision on a Class 2 permit modification in accordance with (b)(vi)(A)(IV) or (B)(IV) of this subsection; or

(B) The ((department)) director determines that the reissued temporary authorization involving a Class 3 permit modification request is warranted to allow the authorized activities to continue while the modification procedures of (c) of this subsection are conducted.

(f) Public notice and appeals of permit modification decisions.

(i) The ((department)) director will notify persons on the facility mailing list and appropriate units of state and local government within ten days of any decision under this section to grant or deny a Class 2 or 3 permit modification request. The ((department)) director will also notify such persons within ten days after an automatic authorization for a Class 2 modification goes into effect under (b)(vi)(C) or (E) of this subsection.

(ii) The ((department's)) director's decision to grant or deny a Class 2 or 3 permit modification request under this section may be appealed under the permit appeal procedures of WAC 173-303-845.

(iii) An automatic authorization that goes into effect under (b)(vi)(C) or (E) of this subsection may be appealed under the permit appeal procedures of WAC 173-303-845; however, the permittee may continue to conduct the activities pursuant to the automatic authorization until the appeal has been granted pursuant to WAC 173-303-845, notwithstanding the provisions of WAC 173-303-840 (8)(b).

(g) Newly regulated wastes and units.

(i) The permittee is authorized to continue to manage wastes listed or identified as dangerous under WAC 173-303-070, or to continue to manage dangerous waste in units newly regulated as dangerous waste management units, if:

(A) The unit was in existence as a dangerous waste facility with respect to the newly listed or identified waste or newly regulated waste management unit on the effective date of the final rule listing or identifying the waste, or regulating the unit;

(B) The permittee submits a Class 1 modification request on or before the date on which the waste or unit becomes subject to the new requirements;

(C) The permittee is in compliance with the applicable standards of 40 CFR Part 265 (as referenced in WAC 173-303-400) and Part 266 (as referenced in WAC 173-303-510);

(D) The permittee also submits a complete Class 2 or 3 permit modification request within one hundred eighty days of the effective date of the rule listing or identifying the waste, or subjecting the unit to management standards under this chapter; and

(E) In the case of land disposal units, the permittee certifies that each such unit is in compliance with all applicable requirements of 40 CFR Part 265 for ground water monitoring and financial responsibility (as referenced in WAC 173-303-400) on the date twelve months after the effective date of the rule identifying or listing the waste as dangerous, or regulating the unit as a dangerous waste management unit. If the owner or operator fails to certify compliance with all these requirements, he or she will lose authority to operate under this section.

(ii) New wastes or units added to a facility's permit under this subsection do not constitute expansions for the purpose of the twenty-five percent capacity expansion limit for Class 2 modifications.

(h) Permit modification list. The ((department)) director must maintain a list of all approved permit modifications and must publish a notice once a year in a state-wide newspaper that an updated list is available for review.

APPENDIX I

Modifications	Class
A. General Permit Provisions	
1. Administrative and informational changes	1
2. Correction of typographical errors	1
3. Equipment replacement or upgrading with functionally equivalent components (e.g., pipes, valves, pumps, conveyors, controls)	1
4. Changes in the frequency of or procedures for monitoring, reporting, sampling, or maintenance activities by the permittee:	
a. To provide for more frequent monitoring, reporting, sampling, or maintenance	1
b. Other changes	2
5. Schedule of compliance:	
a. Changes in interim compliance dates, with prior approval of the director	11
b. Extension of final compliance date	3
6. Changes in expiration date of permit to allow earlier permit termination, with prior approval of the director	11
7. Changes in ownership or operational control of a facility, provided the procedures of subsection (2)(b) of this section are followed	11

PERMANENT

B. General Facility Standards

- 1. Changes to waste sampling or analysis methods:
 - a. To conform with agency guidance or regulations 1
 - b. To incorporate changes associated with F039 (multi-source leachate) sampling or analysis methods 11
 - c. To incorporate changes associated with underlying dangerous constituents in ignitable or corrosive wastes . 11
 - d. Other changes 2
- 2. Changes to analytical quality assurance/control plan:
 - a. To conform with agency guidance or regulations 1
 - b. Other changes 2
- 3. Changes in procedures for maintaining the operating record 1
- 4. Changes in frequency or content of inspection schedules 2
- 5. Changes in the training plan:
 - a. That affect the type or decrease the amount of training given to employees 2
 - b. Other changes 1
- 6. Contingency plan:
 - a. Changes in emergency procedures (i.e., spill or release response procedures) 2
 - b. Replacement with functionally equivalent equipment, upgrade, or relocate emergency equipment listed 1
 - c. Removal of equipment from emergency equipment list 2
 - d. Changes in name, address, or phone number of coordinators or other persons or agencies identified in the plan 1
- 7. Construction quality assurance plan:
 - a. Changes that the CQA officer certifies in the operating record will provide equivalent or better certainty that the unit components meet the design specification 1
 - b. Other changes 2

Note: When a permit modification (such as introduction of a new unit) requires a change in facility plans or other general facility standards, that change will be reviewed under the same procedures as the permit modification.

C. Ground Water Protection

- 1. Changes to wells:
 - a. Changes in the number, location, depth, or design of upgradient or downgradient wells of permitted ground water monitoring system 2
 - b. Replacement of an existing well that has been damaged or rendered inoperable, without change to location, design, or depth of the well 1
- 2. Changes in ground water sampling or analysis procedures or monitoring schedule, with prior approval of the director 11
- 3. Changes in statistical procedure for determining whether a statistically significant change in ground water quality between upgradient and downgradient wells has occurred, with prior approval of the director 11
- 4. Changes in point of compliance 12
- 5. Changes in indicator parameters, hazardous constituents, or concentration limits (including ACLs):
 - a. As specified in the ground water protection standard 3
 - b. As specified in the detection monitoring program 2

- 6. Changes to a detection monitoring program as required by WAC 173-303-645 (9)(j), unless otherwise specified in this appendix 2
- 7. Compliance monitoring program:
 - a. Addition of compliance monitoring program as required by WAC 173-303-645 (9)(h)(iv) and (10) 3
 - b. Changes to a compliance monitoring program as required by WAC 173-303-645 (10)(k), unless otherwise specified in this appendix 2
- 8. Corrective action program:
 - a. Addition of a corrective action program as required by WAC 173-303-645 (10)(i)(ii) and (11) 3
 - b. Changes to a corrective action program as required by WAC 173-303-645 (11)(h), unless otherwise specified in this appendix 2
- D. Closure
 - 1. Changes to the closure plan:
 - a. Changes in estimate of maximum extent of operations or maximum inventory of waste on-site at any time during the active life of the facility, with prior approval of the director 11
 - b. Changes in the closure schedule for any unit, changes in the final closure schedule for the facility, or extension of the closure period, with prior approval of the director 11
 - c. Changes in the expected year of final closure, where other permit conditions are not changed, with prior approval of the director 11
 - d. Changes in procedures for decontamination of facility equipment or structures, with prior approval of the director 11
 - e. Changes in approved closure plan resulting from unexpected events occurring during partial or final closure, unless otherwise specified in this appendix 2
 - f. Extension of the closure period to allow a landfill, surface impoundment, or land treatment unit to receive nondangerous wastes after final receipt of dangerous wastes under WAC 173-303-610 (4)(d) and (e) 2
 - 2. Creation of a new landfill unit as part of closure 3
 - 3. Addition of the following new units to be used temporarily for closure activities:
 - a. Surface impoundments 3
 - b. Incinerators 3
 - c. Waste piles that do not comply with WAC 173-303-660 (1)(c) 3
 - d. Waste piles that comply with WAC 173-303-660 (1)(c) 2
 - e. Tanks or containers (other than specified below) 2
 - f. Tanks used for neutralization, dewatering, phase separation, or component separation, with prior approval of the director 11
- E. Post-Closure
 - 1. Changes in name, address, or phone number of contact in post-closure plan 1
 - 2. Extension of post-closure care period 2
 - 3. Reduction in the post-closure care period 3
 - 4. Changes to the expected year of final closure, where other permit conditions are not changed 1
 - 5. Changes in post-closure plan necessitated by events occurring during the active life of the facility, including partial and final closure 2

PERMANENT

F. Containers

1. Modification or addition of container units:

a. Resulting in greater than 25% increase in the facility's container storage capacity, except as provided in F (1)(c) and F (4)(a) below 3

b. Resulting in up to 25% increase in the facility's container storage capacity, except as provided in F (1)(c) and F (4)(a) below 2

c. Or treatment processes necessary to treat wastes that are restricted from land disposal to meet some or all of the applicable treatment standards or to treat wastes to satisfy (in whole or in part) the standard of "use of practically available technology that yields the greatest environmental benefit" contained in 40 CFR 268.8 (a)(2)(ii), with prior approval of the ((department)) director. This modification may also involve addition of new waste codes or narrative descriptions of wastes. It is not applicable to dioxin-containing wastes (F020, 021, 022, 023, 026, 027, and 028) 1

2:

a. Modification of a container unit without increasing the capacity of the unit 2

b. Addition of a roof to a container unit without alteration of the containment system 1

3. Storage of different wastes in containers:

a. That require additional or different management practices from those authorized in the permit, except as provided in F(4) below 3

b. That do not require additional or different management practices from those authorized in the permit 2

Note: See (g) of this subsection for modification procedures to be used for the management of newly listed or identified wastes.

4. Storage ((~~of~~)) or treatment of different wastes in containers:

a. That require addition of units or change in treatment process or management standards, provided that the wastes are restricted from land disposal and are to be treated to meet some or all of the applicable treatment standards, or that are to be treated to satisfy (in whole or in part) the standard of "use of practically available technology that yields the greatest environmental benefit" contained in 40 CFR 268.8 (a)(2)(ii). This modification is not applicable to dioxin-containing wastes (F020, 021, 022, 023, 026, 027, and 028) 1

b. That do not require the addition of units or a change in the treatment process or management standards, and provided that the units have previously received wastes of the same type (e.g., incinerator scrubber water). This modification is not applicable to dioxin-containing wastes (F020, 021, 022, 023, 026, 027, and 028) ((+))1

G. Tanks

1:

a. Modification or addition of tank units resulting in greater than 25% increase in the facility's tank capacity, except as provided in G (1)(c), G (1)(d), and G (1)(e) below 3

b. Modification or addition of tank units resulting in up to 25% increase in the facility's tank capacity, except as provided in G (1)(d) and G (1)(e) below 2

c. Addition of a new tank that will operate for more than 90 days using any of the following physical or chemical

treatment technologies: neutralization, dewatering, phase separation, or component separation 2

d. After prior approval of the ((department)) director, addition of a new tank that will operate for up to 90 days using any of the following physical or chemical treatment technologies: neutralization, dewatering, phase separation, or component separation 1

e. Modification or addition of tank units or treatment processes necessary to treat wastes that are restricted from land disposal to meet some or all of the applicable treatment standards or to treat wastes to satisfy (in whole or in part) the standard of "use of practically available technology that yields the greatest environmental benefit" contained in 40 CFR 268.8 (a)(2)(ii), with prior approval of the ((department)) director. This modification may also involve addition of new waste codes. It is not applicable to dioxin-containing wastes (F020, 021, 022, 023, 026, 027, and 028) 1

2. Modification of a tank unit or secondary containment system without increasing the capacity of the unit 2

3. Replacement of a tank with a tank that meets the same design standards and has a capacity within +/- 10% of the replaced tank provided 1

-The capacity difference is no more than 1500 gallons, and

-The facility's permitted tank capacity is not increased, and

-The replacement tank meets the same conditions in the permit.

4. Modification of a tank management practice 2

5. Management of different wastes in tanks:

a. That require additional or different management practices, tank design, different fire protection specifications, or significantly different tank treatment process from that authorized in the permit, except as provided in G (5)(c) below 3

b. That do not require additional or different management practices, tank design, different fire protection specifications, or significantly different tank treatment process than authorized in the permit, except as provided in G (5)(d) 2

c. That require addition of units or change in treatment processes or management standards, provided that the wastes are restricted from land disposal and are to be treated to meet some or all of the applicable treatment standards or that are to be treated to satisfy (in whole or in part) the standard of "use of practically available technology that yields the greatest environmental benefit" contained in 40 CFR 268.8 (a)(2)(ii). The modification is not applicable to dioxin-containing wastes (F020, 021, 022, 023, 026, 027, and 028) 1

(d) That do not require the addition of units or a change in the treatment process or management standards, and provided that the units have previously received waste of the same type (e.g., incinerator scrubber water). This modification is not applicable to dioxin-containing wastes (F020, 021, 022, 023, 026, 027, and 028) 1

Note: See (g) of this subsection for modification procedures to be used for the management of newly listed or identified wastes.

H. Surface Impoundments

1. Modification or addition of surface impoundment units that result in increasing the facility's surface impoundment storage or treatment capacity 3

2. Replacement of a surface impoundment unit 3

PERMANENT

3. Modification of a surface impoundment unit without increasing the facility's surface impoundment storage or treatment capacity and without modifying the unit's liner, leak detection system, or leachate collection system . . . 2

4. Modification of a surface impoundment management practice 2

5. Treatment, storage, or disposal of different wastes in surface impoundments:

a. That require additional or different management practices or different design of the liner or leak detection system than authorized in the permit 3

b. That do not require additional or different management practices or different design of the liner or leak detection system than authorized in the permit 2

c. That are wastes restricted from land disposal that meet the applicable treatment standards or that are treated to satisfy the standard of "use of practically available technology that yields the greatest environmental benefit" contained in 40 CFR 268.8 (a)(2)(ii), and provided that the unit meets the minimum technological requirements stated in 40 CFR 268.5 (h)(2). This modification is not applicable to dioxin-containing wastes (F020, 021, 022, 023, 026, 027, and 028) 1

d. That are residues from wastewater treatment or incineration, provided that disposal occurs in a unit that meets the minimum technological requirements stated in 40 CFR 268.5 (h)(2), and provided further that the surface impoundment has previously received wastes of the same type (for example, incinerator scrubber water). This modification is not applicable to dioxin-containing wastes (F020, 021, 022, 023, 026, 027, and 028) 1

6. Modifications of unconstructed units to comply with WAC 173-303-650 (2)(j), (10), (11), and (4)(d) *1

7. Changes in response action plan:

a. Increase in action leakage rate 3

b. Change in a specific response reducing its frequency or effectiveness 3

c. Other changes 2

Note: See (g) of this subsection for modification procedures to be used for the management of newly listed or identified wastes.

I. Enclosed Waste Piles. For all waste piles except those complying with WAC 173-303-660 (1)(c), modifications are treated the same as for a landfill. The following modifications are applicable only to waste piles complying with WAC 173-303-660 (1)(c).

1. Modification or addition of waste pile units:

a. Resulting in greater than 25% increase in the facility's waste pile storage or treatment capacity 3

b. Resulting in up to 25% increase in the facility's waste pile storage or treatment capacity 2

2. Modification of waste pile unit without increasing the capacity of the unit 2

3. Replacement of a waste pile unit with another waste pile unit of the same design and capacity and meeting all waste pile conditions in the permit 1

4. Modification of a waste pile management practice 2

5. Storage or treatment of different wastes in waste piles:

a. That require additional or different management practices or different design of the unit 3

b. That do not require additional or different management practices or different design of the unit 2

6. Conversion of an enclosed waste pile to a containment building unit 2

Note: See (g) of this subsection for modification procedures to be used for the management of newly listed or identified wastes.

J. Landfills and Unenclosed Waste Piles

1. Modification or addition of landfill units that result in increasing the facility's disposal capacity 3

2. Replacement of a landfill 3

3. Addition or modification of a liner, leachate collection system, leachate detection system, run-off control, or final cover system 3

4. Modification of a landfill unit without changing a liner, leachate collection system, leachate detection system, run-off control, or final cover system 2

5. Modification of a landfill management practice 2

6. Landfill different wastes:

a. That require additional or different management practices, different design of the liner, leachate collection system, or leachate detection system 3

b. That do not require additional or different management practices, different design of the liner, leachate collection system, or leachate detection system 2

c. That are wastes restricted from land disposal that meet the applicable treatment standards or that are treated to satisfy the standard of "use of practically available technology that yields the greatest environmental benefit" contained in 40 CFR 268.8 (a)(2)(ii), and provided that the landfill unit meets the minimum technological requirements stated in 40 CFR 268.5 (h)(2). This modification is not applicable to dioxin-containing wastes (F020, 021, 022, 023, 026, 027, and 028) 1

d. That are residues from wastewater treatment or incineration, provided that disposal occurs in a landfill unit that meets the minimum technological requirements stated in 40 CFR 268.5 (h)(2), and provided further that the landfill has previously received wastes of the same type (for example, incinerator ash). This modification is not applicable to dioxin-containing wastes (F020, 021, 022, 023, 026, 027, and 028) 1

7. Modifications of unconstructed units to comply with WAC 173-303-660 (2)(j), (11), (12), (5)(c), 173-303-665 (2)(h), (8), (4)(c), and (9). *1

8. Changes in response action plan:

a. Increase in action leakage rate 3

b. Change in a specific response reducing its frequency or effectiveness. 3

c. Other changes 2

Note: See (g) of this subsection for modification procedures to be used for the management of newly listed or identified wastes.

K. Land Treatment

1. Lateral expansion of or other modification of a land treatment unit to increase areal extent 3

2. Modification of run-on control system 2

3. Modify run-off control system 3

4. Other modifications of land treatment unit component specifications or standards required in permit 2

5. Management of different wastes in land treatment units:

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- a. That require a change in permit operating conditions or unit design specifications 3
- b. That do not require a change in permit operating conditions or unit design specifications 2

Note: See (g) of this subsection for modification procedures to be used for the management of newly listed or identified wastes.

6. Modification of a land treatment unit management practice to:

- a. Increase rate or change method of waste application 3
- b. Decrease rate of waste application 2

7. Modification of a land treatment unit management practice to change measures of pH or moisture content, or to enhance microbial or chemical reactions 2

8. Modification of a land treatment unit management practice to grow food chain crops, to add to or replace existing permitted crops with different food chain crops, or to modify operating plans for distribution of animal feeds resulting from such crops 3

9. Modification of operating practice due to detection of releases from the land treatment unit pursuant to WAC 173-303-655 (6)(g)(ii) 3

10. Changes in the unsaturated zone monitoring system, resulting in a change to the location, depth, number of sampling points, or replace unsaturated zone monitoring devices or components of devices with devices or components that have specifications different from permit requirements 3

11. Changes in the unsaturated zone monitoring system that do not result in a change to the location, depth, number of sampling points, or that replace unsaturated zone monitoring devices or components of devices with devices or components having specifications different from permit requirements 2

12. Changes in background values for hazardous constituents in soil and soil-pore liquid 2

13. Changes in sampling, analysis, or statistical procedure 2

14. Changes in land treatment demonstration program prior to or during the demonstration 2

15. Changes in any condition specified in the permit for a land treatment unit to reflect results of the land treatment demonstration, provided performance standards are met, and the director's prior approval has been received 2

16. Changes to allow a second land treatment demonstration to be conducted when the results of the first demonstration have not shown the conditions under which the wastes can be treated completely, provided the conditions for the second demonstration are substantially the same as the conditions for the first demonstration and have received the prior approval of the director 2

17. Changes to allow a second land treatment demonstration to be conducted when the results of the first demonstration have not shown the conditions under which the wastes can be treated completely, where the conditions for the second demonstration are not substantially the same as the conditions for the first demonstration 3

18. Changes in vegetative cover requirements for closure 2

L. Incinerators, Boilers, and Industrial Furnaces

1. Changes to increase by more than 25% any of the following limits authorized in the permit: A thermal feed rate limit, a feedstream feed rate limit, a chlorine/chloride feed rate limit, a metal feed rate limit, or an ash feed rate limit. The ((department)) director will require a new trial burn to substantiate compliance with the regulatory performance standards unless this demonstration can be made through other means 3

2. Changes to increase by up to 25% any of the following limits authorized in the permit: A thermal feed rate limit, a feedstream feed rate limit, a chlorine/chloride feed rate limit, a metal feed rate limit, or an ash feed rate limit. The ((department)) director will require a new trial burn to substantiate compliance with the regulatory performance standards unless this demonstration can be made through other means 2

3. Modification of an incinerator, boiler, or industrial furnace unit by changing the internal size or geometry of the primary or secondary combustion units, by adding a primary or secondary combustion unit, by substantially changing the design of any component used to remove HCl/Cl₂, metals, or particulate from the combustion gases, or by changing other features of the incinerator, boiler, or industrial furnace that could affect its capability to meet the regulatory performance standards. The ((department)) director will require a new trial burn to substantiate compliance with the regulatory performance standards unless this demonstration can be made through other means 3

4. Modification of an incinerator, boiler, or industrial furnace unit in a manner that would not likely affect the capability of the unit to meet the regulatory performance standards but which would change the operating conditions or monitoring requirements specified in the permit. The ((department)) director may require a new trial burn to demonstrate compliance with the regulatory performance standards 2

5. Operating requirements:

a. Modification of the limits specified in the permit for minimum or maximum combustion gas temperature, minimum combustion gas residence time, oxygen concentration in the secondary combustion chamber flue gas carbon monoxide and hydrocarbon concentration, maximum temperature at the inlet to the particulate matter emission control system, or operating parameters for the air pollution control system. The ((department)) director will require a new trial burn to substantiate compliance with the regulatory performance standards unless this demonstration can be made through other means 3

b. Modification of any stack gas emission limits specified in the permit, or modification of any conditions in the permit concerning emergency shutdown or automatic waste feed cutoff procedures or controls 3

c. Modification of any other operating condition or any inspection or recordkeeping requirement specified in the permit 2

PERMANENT

6. Burning different wastes:

a. If the waste contains a POHC that is more difficult to burn than authorized by the permit or if burning of the waste requires compliance with different regulatory performance standards than specified in the permit. The ((department)) director will require a new trial burn to substantiate compliance with the regulatory performance standards unless this demonstration can be made through other means 3

b. If the waste does not contain a POHC that is more difficult to burn than authorized by the permit and if burning of the waste does not require compliance with different regulatory performance standards than specified in the permit 2

Note: See (g) of this subsection for modification procedures to be used for the management of newly listed or identified wastes.

7. Shakedown and trial burn:

a. Modification of the trial burn plan or any of the permit conditions applicable during the shakedown period for determining operational readiness after construction, the trial burn period, or the period immediately following the trial burn 2

b. Authorization of up to an additional 720 hours of waste burning during the shakedown period for determining operational readiness after construction, with the prior approval of the ((department)) director 1

c. Changes in the operating requirements set in the permit for conducting a trial burn, provided the change is minor and has received the prior approval of the ((department)) director 1

d. Changes in the ranges of the operating requirements set in the permit to reflect the results of the trial burn, provided the change is minor and has received the prior approval of the ((department)) director 1

8. Substitution of an alternate type of nondangerous fuel that is not specified in the permit 1

M. Containment Buildings

1. Modification or addition of containment building units:

a. Resulting in greater than 25% increase in the facility's containment building storage or treatment capacity. 3

b. Resulting in up to 25% increase in the facility's containment building storage or treatment capacity. 2

2. Modification of a containment building unit or secondary containment system without increasing the capacity of the unit. 2

3. Replacement of a containment building with a containment building that meets the same design standards provided:

a. The unit capacity is not increased. 1
b. The replacement containment building meets the same conditions in the permit. 1

4. Modification of a containment building management practice. 2

5. Storage or treatment of different wastes in containment buildings:

a. That require additional or different management practices. 3

b. That do not require additional or different management practices. 2

N. Corrective Action

- 1. Approval of a corrective action management unit pursuant to WAC 173-303-646 (4), (5), and (6) 3
- 2. Approval of a temporary unit or time extension for a temporary unit pursuant to WAC 173-303-646(7) 2
- 3. Modification to incorporate a corrective action order issued pursuant to MTCA 3
- 4. Modification or amendment of a corrective action order issued pursuant to MTCA when the MTCA public participation requirements are met and order has already been incorporated by reference into the permit 1

¹ Class 1 modifications requiring prior Agency approval.

(5) Permit termination. The ((department)) director will follow the applicable procedures in WAC 173-303-840, procedures for decision making, in terminating any permit. The following are causes for terminating a permit during its term or for denying a permit renewal application:

(a) Noncompliance by the permittee with any condition of the permit;

(b) The permittee's failure in the application or during the permit issuance process to disclose fully all relevant facts, or the permittee's misrepresentation of any relevant facts at any time; or

(c) A determination that the permitted activity endangers public health or the environment and can only be regulated to acceptable levels by permit modification or termination.

~~((6) Schedules of compliance.~~

~~(a) General. The permit may, when appropriate, specify a schedule of compliance leading to compliance with chapter 173-303 WAC.~~

~~(b) Time for compliance. Any schedules of compliance under this section will require compliance as soon as possible.~~

~~(c) Interim dates. If a permit establishes a schedule of compliance which exceeds one year from the date of permit issuance, the schedule will set forth interim requirements and the dates for their achievement as follows:~~

~~(i) The time between interim dates will not exceed one year; or~~

~~(ii) If the time necessary for completion of any interim requirement (such as the construction of a control facility) is more than one year and is not readily divisible into stages for completion, the permit will specify interim dates for the submission of reports of progress toward completion of the interim requirements and indicate a projected completion date.~~

~~(d) Reporting. The permit will be written to require that no later than fourteen days following each interim date and the final date of compliance, the permittee must notify the department in writing of its compliance or noncompliance with the interim or final requirements.)~~

AMENDATORY SECTION (Amending Order 94-30, filed 10/19/95, effective 11/19/95)

WAC 173-303-840 Procedures for decision making.

(1) Application and completeness.

(a) The department will not begin the processing of a permit until the applicant has fully complied with the application requirements for the permit. Permit applications must comply with the signature and certification requirements of WAC 173-303-810 (12) and (13).

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(b) The department will review for completeness each application for a permit under this chapter. Each application for a permit should be reviewed for completeness within sixty days of its receipt. Upon completing the review, the department will notify the applicant in writing whether or not the application is complete. If the application is incomplete, the department will list the information necessary to make the application complete, and will specify in the notice of deficiency a date for submitting the necessary information. After the application is completed, the department may request additional information from an applicant but only when necessary to clarify, modify, or supplement previously submitted material. Requests for such additional information will not render an application incomplete.

(c) If an applicant fails or refuses to correct deficiencies in the application, the permit may be denied and appropriate enforcement actions may be taken under chapter 70.105 RCW.

(d) If the department decides that a site visit is necessary for any reason in conjunction with the processing of an application, then the department will notify the applicant and a date will be scheduled.

(e) The effective date of an application is the date on which the department notifies the applicant that the application is complete as provided in (b) of this subsection.

(2) Draft permits.

(a) A draft permit is a document prepared by the department indicating the tentative decision to issue, deny, modify, revoke and reissue, or terminate a permit.

(b) When an application is complete, the department will tentatively decide whether to prepare a draft permit, or to deny the application.

(c) If the department tentatively decides to deny the permit application, then the department will issue a notice of intent to deny. A notice of intent to deny the permit application is a type of draft permit which follows the same procedures as any draft permit prepared under this subsection. If the department's final decision is that the tentative decision to deny was incorrect, then the department will withdraw the notice of intent to deny and proceed to prepare a draft permit under this subsection.

(d) If the department decides to prepare a draft permit, it will contain the following information:

(i) All conditions applicable to permits under WAC 173-303-810 and 173-303-815 including compliance and monitoring requirements;

(ii) Applicable conditions under WAC 173-303-830 and 173-303-815; and

(iii) All applicable standards for storage, treatment and disposal, and other permit conditions.

(e) All draft permits must be accompanied by a fact sheet that is supported by administrative record and made available for public comment.

(f) Fact sheet; statement of basis.

(i) A fact sheet will be prepared for every draft permit for a major dangerous waste management facility, and for every draft permit which the department finds is the subject of wide-spread public interest or raises major issues.

(ii) The fact sheet will briefly set forth the principal facts and the significant factual, legal, methodological, and policy questions considered in preparing the draft permit.

The department will send this fact sheet to the applicant and, on request, to any other person.

(iii) The fact sheet will include, when applicable:

(A) A brief description of the type of facility or activity which is the subject of the draft permit;

(B) The type and quantity of wastes, fluids, or pollutants which are proposed to be or are being treated, stored, disposed, injected, emitted, or discharged;

(C) A brief summary of the basis for the draft permit conditions including supporting references;

(D) Reasons why any requested variances or alternatives to required standards do or do not appear justified; and

(E) A description of the procedures for reaching a final decision on the draft permit including:

(I) The beginning and ending dates of the comment period and the address where comments will be received;

(II) Procedures for requesting a hearing and the nature of that hearing;

(III) Any other procedures by which the public may participate in the final decision; and

(IV) Name and telephone number of a person to contact for additional information.

(iv) The department will prepare a statement of basis for every draft permit for which a fact sheet is not prepared. The statement of basis will briefly describe the derivation of the conditions of the draft permit and the reasons for them or, in the case of notices of intent to deny or terminate, reasons supporting the tentative decision. The statement of basis will be sent to the applicant and, on request, to any other person.

(3) Public notice and involvement.

(a) The department will give public notice that the following actions have occurred:

(i) A draft permit has been prepared or an application is tentatively being denied;

(ii) A hearing on a permit has been scheduled; or

(iii) An appeal on a permit has been filed with the pollution control hearings board.

(b) No public notice is required when a request for permit modification, revocation and reissuance, or termination is denied. A written notice of the denial will be given to the person who requested the permit change and to the permittee.

(c) The public notice may describe more than one permit or permit action.

(d) Public notice of the preparation of a draft permit, including a notice of intent to deny a permit application will allow at least forty-five days for public comment. Public notice of a public hearing will be given at least thirty days before the hearing.

(e) Public notice of activities described in this subsection will be given by the following methods:

(i) By mailing a copy of a notice to the following persons (any person otherwise entitled to receive notice under this paragraph may waive his or her rights to receive notice for any classes and categories of permits):

(A) The applicant;

(B) Any other agency which the department knows has issued or is required to issue a permit for the same activity or facility;

(C) Federal and state agencies with jurisdiction over fish, shellfish, and wildlife resources and over coastal zone

management plans, the advisory council on historic preservation, state historic preservation officers, ~~((and other appropriate government authorities,))~~ including any affected states (Indian tribes) (for purposes of this paragraph and in the context of the Underground Injection Control Program only, the term state includes Indian tribes treated as states);

(D) Persons on the mailing list developed by:

(I) Including those who request in writing to be on the list;

(II) Soliciting persons for an area list from participants in past permit proceedings in that area; and

(III) Notifying the public of the opportunity to be put on the mailing list through periodic publications in the public press and in appropriate publications of the department;

(E) Any unit of local government having jurisdiction over the area where the facility is proposed to be located, and each state agency having any authority under state law with respect to construction or operation of such facility;

(ii) For major permits, by publication of a notice in a daily or weekly newspaper within the area affected by the facility;

(iii) For all permits, by publication of notice in a daily or weekly major local newspaper of general circulation, and local radio broadcast of the public notice; and

(iv) By any other method reasonably calculated to give notice of the action in question to the persons potentially affected by it, including press releases or any other forum or medium to elicit public participation.

(4) Contents of the public notice.

(a) All public notices issued will contain the following minimum information:

(i) Name and address of the office processing the permit action for which notice is being given;

(ii) Name and address of the permittee or permit applicant and, if different, of the facility or activity regulated by the permit;

(iii) A brief description of the business conducted at the facility or activity described in the permit application or the draft permit;

(iv) Name, address, and telephone number of a person from whom interested persons may obtain further information, including copies of the draft permit, fact sheet or statement of basis, and the application;

(v) A brief description of the comment procedures and the time and place of any hearing that will be held, including a statement of procedures to request a hearing (unless a hearing has already been scheduled) and other procedures by which the public may participate in the final permit decision;

(vi) And any additional information considered necessary or proper.

(b) In addition to the general public notice described in (a) of this subsection, public notice of a hearing under subsection (5) of this section will contain the following information:

(i) Date, time, and place of the hearing;

(ii) Reference to the date of the previous public notice relating to the permit; and

(iii) A brief description of the nature and purpose of the hearing including the applicable rules and procedures.

(c) In addition to the general public notice all persons identified in WAC 173-303-840 (3)(e)(i)(A), (B), and (C)

will be mailed a copy of the fact sheet, the permit application (if any), and the draft permit (if any).

(d) Public comments and request for public hearings. During the public comment period any interested person may submit written comments on the draft permit and may request a public hearing, if no hearing has already been scheduled. A request for a public hearing must be in writing and must state the nature of the issues proposed to be raised in the hearing. All comments will be considered in making the final decision and will be answered according to WAC 173-303-840(9).

(5) Public hearings.

(a) The department will hold a public hearing whenever, on the basis of requests, there is a significant degree of public interest in a draft permit or there is written notice of opposition and the director receives a request for a hearing during the forty-five day comment period. The department also may hold a public hearing at its discretion, whenever, for instance, such a hearing might clarify one or more issues involved in the permit decision. Public notice of the hearing will be given as specified in WAC 173-303-840(3). Whenever possible, the department will schedule a public hearing under this subsection at a location convenient to the nearest population center to the proposed facility.

(b) Any person may submit oral or written statements and data concerning the draft permit. Reasonable limits may be set upon the time allowed for oral statements, and the submission of statements in writing may be required. The public comment period under WAC 173-303-840(3) will automatically be extended to the close of any public hearing under this subsection. The hearing officer may also extend the comment period by so stating at the hearing.

(c) A tape recording or written transcript of the hearing will be made available to the public.

(6) Obligation to raise issues and provide information during the public comment period.

(a) All persons, including applicants, who believe any condition of a draft permit is inappropriate, or that the department's tentative decision to deny an application, terminate a permit, or prepare a draft permit is inappropriate, must raise all reasonably ascertainable issues and submit all reasonably available arguments and factual grounds supporting their position, including all supporting material, by the close of the public comment period (including any public hearing) under WAC 173-303-840(3).

(b) All supporting materials will be included in full and may not be incorporated by reference, unless they are already part of the administrative record in the same proceeding, or consist of state or federal statutes and regulations, documents of general applicability, or other generally available reference materials. Commenters must make supporting material not already included in the administrative record available to the department. A comment period longer than ~~((thirty))~~ forty-five days will often be necessary in complicated proceedings to give commenters a reasonable opportunity to comply with the requirements of this subsection. Commenters may request a longer comment period.

(7) Reopening of the public comment period. If any data, information, or arguments submitted during the public comment period, including information or arguments required under subsection (6) of this section, appear to raise

substantial new questions concerning a permit, the department may take one or more of the following actions:

- (a) Prepare a new draft permit, appropriately modified;
- (b) Prepare a revised statement of basis, a fact sheet or revised fact sheet, and reopen the comment period; or
- (c) Reopen or extend the comment period to give interested persons an opportunity to comment on the information or arguments submitted.

Comments filed during the reopened comment period will be limited to the substantial new questions that caused its reopening. The public notice will define the scope of the reopening.

- (8) Issuance and effective date of permit.

(a) After the close of the public comment period under WAC 173-303-840(5) on a draft permit, the department will issue a final permit decision (or a decision to deny a permit for the active life of a RCRA dangerous waste facility or unit under WAC 173-303-840). The department will notify the applicant and each person who has submitted written comments or requested notice of the final permit decision. For purposes of this section, a final permit means a final decision to issue, deny, modify, revoke and reissue, or terminate a permit.

(b) A final permit decision will become effective thirty days after the service of notice of the decision, unless:

- (i) A later effective date is specified in the decision; or
- (ii) No comments requested a change in the draft permit, in which case the permit will become effective immediately upon issuance; or

(iii) Review is requested under chapter 43.21B RCW or an evidentiary hearing is requested under RCW 43.21B.160.

(9) Response to comments. At the time that any final permit is issued, the department will issue a response to comments. This response will specify which provisions, if any, of the draft permit have been changed in the final permit decision and the reason for the change, and briefly describe and respond to all significant comments of the draft permit raised during the public comment period or during any hearing. The response to comments shall be available to the public.

(10) Decision-making procedure for modification, revocation and reissuance, or termination of permits.

(a) Permits may be modified, revoked and reissued, or terminated either at the request of any interested person (including the permittee) or upon the department's initiative. However, permits may only be modified or revoked and reissued for the reasons specified in WAC 173-303-830(3) (~~and (4)~~), or terminated for the reasons specified in WAC 173-303-805 or (~~173-303-806~~) 173-303-830(5). All requests must be in writing and must contain facts or reasons supporting the request.

(b) If the department tentatively decides to modify or revoke and reissue a permit under WAC 173-303-830 (3) or (4)(c), it will prepare the draft permit under WAC 173-303-840(2), incorporating the proposed changes. The department may request additional information and, in the case of a modified permit, may require the submission of an updated permit application. In the case of revoked and reissued permits, the department will require the submission of a new application.

(c) In a permit modification under this (~~section~~) subsection, only those conditions to be modified will be

reopened when a new draft permit is prepared. All other aspects of the existing permit will remain in effect for the duration of the unmodified permit. When a permit is revoked and reissued under this section, the entire permit is reopened just as if the permit had expired and was being reissued. During any revocation and reissuance proceeding the permittee must comply with all conditions of the existing permit until a new final permit is reissued.

(d) (~~"Minor modifications"~~) "Class 1 and class 2 modifications" as defined in WAC 173-303-830 (4)(a) and (b) are not subject to the requirements of this (~~section~~) subsection.

(e) If the department tentatively decides to terminate an interim status permit under WAC 173-303-805 or a final permit under WAC 173-303-806, it will issue a notice of intent to terminate. A notice of intent to terminate is a type of draft permit which follows the same procedures as any draft permit prepared under WAC 173-303-840(2).

AMENDATORY SECTION (Amending Order 92-33, filed 12/8/93, effective 1/8/94)

WAC 173-303-900 Public involvement and participation. (1) Intent. Public involvement and participation plays a significant role in the decision making process. The department intends to foster public awareness, information and consultation, and to respond actively to public concerns. The department will inform the public of major issues, proposed projects, and regulatory changes, and will consult interested and affected segments of the public before making important decisions. The overall goal of the department is to provide knowledge to the public about dangerous waste issues that vitally affect the state, to encourage broader understanding of the public role in dangerous wastes and their proper management, and to promote an open dialogue between the public, industry, and government.

(2) Applicable requirements. In fulfilling the intent of public involvement and participation in the decision making process, the department will refer to and, where applicable, follow the requirements and guidance set forth in the following:

- (a) Chapter 34.04 RCW, Administrative Procedure Act;
- (b) Chapter 34.08 RCW, Washington State Register Act of 1977;
- (c) Chapter 42.17 RCW, Public Records Act;
- (d) Chapter 197-11 WAC, Guidelines interpreting and implementing the State Environmental Policy Act;
- (e) 40 CFR Part 25, Public Participation in Programs Under the Resource Conservation and Recovery Act, the Safe Drinking Water Act, and the Clean Water Act; and
- (f) (~~The Washington state solid waste management plan, December 1980.~~) Reserve.

AMENDATORY SECTION (Amending Order 94-30, filed 10/19/95, effective 11/19/95)

WAC 173-303-910 Petitions. (1) General petitions.

(a) Any person may petition the department to modify or revoke any provision in this chapter. This subsection sets forth general requirements which apply to all such petitions. The remaining subsections of this section describe additional requirements for specific types of petitions.

(b) Each petition must be submitted to the department by certified mail and must include:

- (i) The petitioner's name and address;
- (ii) A statement of the petitioner's interest in the proposed action;
- (iii) A description of the proposed action, including (where appropriate) suggested regulatory language; and
- (iv) A statement of the need and justification for the proposed action, including any supporting tests, studies, or other information.

(c) The department will make a tentative decision to grant or deny the petition and give public notice of the tentative decision in writing. The notice will be distributed to interested persons on a mailing list developed specifically for petitions and persons expressing interest in amendments to this chapter. The public comment period will be a minimum of forty-five days.

(d) Upon the written request of any interested person, the director may, at his discretion, hold a conference to consider oral comments on the action proposed in the petition. A person requesting a conference must state the issues to be raised and explain why written comments would not suffice to communicate the person's views. The director may in any case decide on his own motion to hold a conference.

(e) After evaluating all public comments the department will make a final decision in accordance with RCW 34.05.330 or 34.05.240. The department will either deny the petition in writing (stating its reasons for denial), or grant the petition and, when appropriate, initiate rule-making proceedings in accordance with RCW 34.05.330.

(2) Petitions for equivalent testing or analytical methods.

(a) Any person seeking to add a testing or analytical method to WAC 173-303-110 may petition for a regulatory amendment under this section. To be successful, the person must demonstrate to the satisfaction of the department that the proposed method is equal to or superior to the corresponding method prescribed in WAC 173-303-110, in terms of its sensitivity, accuracy, and precision (i.e., reproducibility).

(b) Each petition must include, in addition to the information required by subsection (1) of this section:

- (i) A full description of the proposed method, including all procedural steps and equipment used in the method;
- (ii) A description of the types of wastes or waste matrices for which the proposed method may be used;
- (iii) Comparative results obtained from using the proposed method with those obtained from using the relevant or corresponding methods prescribed in WAC 173-303-110;
- (iv) An assessment of any factors which may interfere with, or limit the use of, the proposed method; and
- (v) A description of the quality control procedures necessary to ensure the sensitivity, accuracy and precision of the proposed method.

(c) After receiving a petition for an equivalent testing or analytical method, the department may request any additional information on the proposed method which it may reasonably require to evaluate the proposal.

(d) If the department amends the regulations to permit use of a new testing method, the method will be incorporated in a document which will be available from the department.

(3) Petitions for exempting dangerous wastes from a particular generator.

(a) Any generator seeking to exempt his dangerous waste may petition the department for exemption from the requirements of WAC 173-303-070 through 173-303-100.

(b) To be successful, the generator must make the demonstrations required in WAC 173-303-072(3) and, where applicable, (4) ~~((and (5)))~~.

(c) Each petition must include, in addition to the information required by subsection (1) of this section:

- (i) The name and address of the laboratory facility performing the sampling or tests of the waste;
- (ii) The names and qualifications of the persons sampling and testing the waste;
- (iii) The dates of sampling and testing;
- (iv) The location of the generating facility;
- (v) A description of the manufacturing processes or other operations and feed materials producing the waste and an assessment of whether such processes, operations, or feed materials can or might produce a waste that is not covered by the demonstration;
- (vi) A description of the waste and an estimate of the average and maximum monthly and annual quantities of waste covered by the demonstration;
- (vii) Pertinent data on and discussion of the factors delineated in WAC 173-303-072(3) and, where applicable, (4) ~~((and (5)))~~;
- (viii) A description of the methodologies and equipment used to obtain the representative samples;
- (ix) A description of the sample handling and preparation techniques, including techniques used for extraction, containerization and preservation of the samples;
- (x) A description of the tests performed (including results);
- (xi) The names and model numbers of the instruments used in performing the tests and the date of the last calibration for instruments which must be calibrated according to manufacturer's instructions; and
- (xii) The following statement signed by the generator of the waste or his authorized representative:

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this demonstration and all attached documents, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

(d) After receiving a petition for a dangerous waste exemption, the department may request any additional information which it may reasonably require to evaluate the petition.

(e) An exemption will only apply to the waste generated by the particular generator covered by the demonstration and will not apply to waste from any other generator.

(f) The department may exempt only part of the waste for which the demonstration is submitted where there is reason to believe that variability of the waste justifies a partial exemption.

(g) The department may (but will not be required to) grant a temporary exemption before making a final decision under subsection (1) of this section, whenever it finds that there is a substantial likelihood that an exemption will be finally granted.

(h) Any waste for which an exemption is sought will remain designated and be subject to the applicable requirements of this chapter until the generator of the waste is notified by the department that his waste is exempt.

(4) Petition for exclusion.

(a) Any generators seeking exclusion of a class of similar or identical wastes under WAC 173-303-071, excluded categories of waste, may petition the department for exclusion. To be successful, the generator(s) must make the demonstrations required in WAC 173-303-072(6) for all those wastes generated in the state which might be excluded pursuant to granting a petition submitted under this subsection. No class of wastes will be excluded if any of the wastes are regulated as hazardous waste under 40 CFR Part 261.

(b) Each petition for exclusion must include the information required by subsections (1) and (3)(c) of this section and any other information required by the department.

(c) After receiving a petition for exclusion, the department may request any additional information it deems necessary to evaluate the petition.

(5) Petition for designation change. The provisions of (a)(i) of this subsection do not apply to any dangerous waste which is also designated as a hazardous waste under 40 CFR Part 261 Subpart D.

(a) A generator may petition the department to change the designation of his waste as follows:

(i) A waste which is designated only for toxicity pursuant to WAC 173-303-100 but which is toxic solely because it is highly acidic or basic (i.e., due to high or low pH) may be subject only to the requirements for corrosive dangerous wastes, provided that the generator can demonstrate this fact to the department's satisfaction through information provided under (b) of this subsection; and

(ii) A waste which is designated EHW may be redesignated DW, provided that the generator can demonstrate that such redesignation is appropriate through information provided under (b) of this subsection.

(b) A petition under this subsection must include:

(i) The information required by subsections (1) and (3)(c) of this section; and

(ii) Such other information as required by the department.

(c) A designation change under this subsection will become effective only after the department has approved the change and notified the generator of such approval.

(6) Petitions to allow land disposal of a waste restricted under WAC 173-303-140.

(a) Any person seeking a land disposal restriction exemption allowed under WAC 173-303-140(6) must submit a petition to the department. The petition must include the following general information:

(i) The petitioner's name and address;

(ii) A statement of the petitioner's interest in the proposed action;

(iii) A description of the proposed action;

(iv) A statement of the need and justification for the proposed action;

(v) An identification of the specific waste and the specific land disposal unit for which the exemption is desired;

(vi) A waste analysis to describe fully the chemical and physical characteristics of the subject waste. All waste and environmental sampling, test, and analysis data must be accurate and reproducible to the extent that state-of-the-art techniques allow; and

(vii) A quality assurance and quality control plan that addresses all sampling and testing aspects of the information provided in the petition.

(b) In addition to the general information requirements in subsection (a) of this section, the following specific information must be provided in the petition for individual case-by-case exemptions.

(i) Petition for land disposal exemption for treatment residuals. Petitions for exemption of treatment residuals, as allowed under WAC 173-303-140 (6)(a), must:

(A) Provide the type of waste management or treatment method applied to the waste and the rationale for selecting this method as the best achievable management method; and

(B) Document that the land disposal of the treatment residual would not pose a greater risk to public health and the environment than land disposal of the original wastes, including an analysis of the treatment residuals to fully describe their chemical and physical characteristics; and

(C) Provide the management alternatives for the treatment residuals and the factors which, if an exemption is not granted, would prevent the utilization of the best achievable management method for the original dangerous waste.

(ii) Petition for economic hardship exemption. Petitions for exemption on the basis of economic hardship, as allowed under WAC 173-303-140 (6)(b), must:

(A) Supply the current management costs and the projected management costs to comply with the requirements of WAC 173-303-140; and

(B) Provide the source of information utilized in determining the economic estimates; and

(C) Provide a discussion of how the projected compliance costs would impose an unreasonable economic burden.

(iii) Petition for leachable inorganic waste exemption. Petitions for exemption of leachable inorganic wastes, as allowed under WAC 173-303-140 (6)(c), must:

(A) Provide information demonstrating that the stabilization of the dangerous waste is less protective of public health and the environment than landfilling; or

(B) Provide a list of stabilization facilities that could accept the dangerous waste and information demonstrating that they do not have available capacity to stabilize the waste; or

(C) Provide information describing the types of stabilization utilized which did not reduce the solubility and mobility of the dangerous waste constituents and describe any other stabilization methods that have been considered but not utilized.

(iv) Petition for organic/carbonaceous waste exemption. Petitions for exemption of organic/carbonaceous wastes, as allowed under WAC 173-303-140 (6)(~~(d)~~) (c), must:

(A) Provide information demonstrating that recycling, treatment and incineration facilities are unavailable for the

waste, including a map marked both with the point of waste generation and the point(s) of the nearest treatment, recycling and incineration facility(s) that could manage the dangerous waste; or

(B) Provide information demonstrating that the alternative management methods for organic/carbonaceous waste are less protective of public health and the environment than stabilization and landfilling; or

(C) Provide information demonstrating that:

(I) Recycling and treatment facilities are unavailable for the waste, including a map marked both with the point of waste generation and the point(s) of the nearest treatment, recycling and incineration facility(s) that could manage the dangerous waste; and

(II) The organic/carbonaceous waste has a heat content less than 3,000 BTU/LB or a moisture content greater than sixty-five percent.

(c) Each petition must include the following statement signed by the petitioner or an authorized representative:

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this petition and all attached documents, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

(d) Each petition must be submitted to:

Department of Ecology
HWTR Program
ATTN Land Disposal Exemption
PO BOX 47600
Olympia, WA 98504-7600

(e) After receiving a petition, the department may request any additional information that reasonably may be required to evaluate the petition and accompanying demonstration, such as a comprehensive characterization of the disposal unit site including an analysis of background air, soil, and water quality. Simulation models must be calibrated for the specific waste and site conditions, and verified for accuracy by comparison with actual measurements.

(f)(i) The department will make a tentative decision to grant or deny the petition and give public notice of the tentative decision in writing. The notice will be distributed to interested persons on a mailing list developed specifically for petitions and persons expressing interest in amendments to this chapter. The public comment period will be a minimum of forty-five days.

(ii) Upon the written request of any interested person, the department may, at its discretion, hold a conference to consider oral comments on the action proposed in the petition. A person requesting a conference must state the issues to be raised and explain why written comments would not suffice to communicate the person's views. The department may in any case decide on its own motion to hold a conference.

(iii) After evaluating all public comments the department will make a final decision in accordance with RCW

34.04.060 or 34.04.080. The department will either deny the petition in writing (stating its reasons for denial), or grant the petition.

(g) Prior to the department's decision, the applicant is required to comply with all restrictions on land disposal under WAC 173-303-140. The department should respond to a petition within ninety days.

(h) If an exemption is granted, the department may include specific conditions as deemed necessary by the department to protect public health and the environment.

(i) If granted, the exemption will apply to land disposal of the specific restricted waste at the individual disposal unit described in the petition and accompanying demonstration. The exemption will not apply to any other restricted waste at that disposal unit, nor will it apply to that specific restricted waste at any other disposal unit.

(j) If an exemption is granted, the department may withdraw the exemption on the following bases:

(i) If there is a threat to public health and the environment; or

(ii) If there is migration of dangerous waste constituents from the land disposal unit or site for as long as the waste remains dangerous; or

(iii) If the department finds reason to believe that the information submitted in a petition is inaccurate or has been falsified such that the petition should have been denied.

(k) The term of an exemption granted under this subsection will be established by the department at the time of issuance.

(l) Any exemption granted by the department does not relieve the petitioner of his responsibilities in the management of dangerous waste under chapter 173-303 WAC.

(m) The department may (but will not be required to) grant a temporary exemption before making a final decision, whenever it finds that there is a substantial likelihood that an exemption will be finally granted. Temporary exemptions will not be subject to the procedures of (f) of this subsection. Temporary exemptions will not be a cause of delaying final decision making on the petition request.

(7) Petitions to amend WAC 173-303-573 to include additional dangerous wastes.

(a) Any person seeking to add a dangerous waste or a category of dangerous waste to the universal waste regulations of WAC 173-303-573 may petition for a regulatory amendment under this section and WAC 173-303-573 (39) and (40).

(b) To be successful, the petitioner must demonstrate to the satisfaction of the department that regulation under the universal waste regulations of WAC 173-303-573: Is appropriate for the waste or category of waste; will improve management practices for the waste or category of waste; and will improve implementation of the dangerous waste program. The petition must include the information required by subsection (1) of this section. The petition should also address as many of the factors listed in WAC 173-303-573(40) as are appropriate for the waste or category of waste addressed in the petition.

(c) The department will grant or deny a petition using the factors listed in WAC 173-303-573(40). The decision will be based on the weight of evidence showing that regulation under WAC 173-303-573 is appropriate for the waste or category of waste, will improve management

practices for the waste or category of waste, and will improve implementation of the dangerous waste program.

(d) The department may request additional information needed to evaluate the merits of the petition.

AMENDATORY SECTION (Amending Order 94-30, filed 10/19/95, effective 11/19/95)

WAC 173-303-9903 Discarded chemical products list.

Discarded Chemical Products List

"P" Chemical Products

Comment: For the convenience of the regulated community, the primary hazardous properties of these materials have been indicated by the letters T (Toxicity), and R (Reactivity). Absence of a letter indicates that the compound is only listed for acute toxicity.

The "P" wastes and their corresponding Dangerous Waste Numbers are:

Dangerous Waste No.	Chemical Abstracts No.	Substance
P023	107-20-0	Acetaldehyde, chloro-
P002	591-08-2	Acetamide, N-(aminothioxomethyl)-
P057	640-19-7	Acetamide, 2-fluoro-
P058	62-74-8	Acetic acid, fluoro-, sodium salt
P002	591-08-2	1-Acetyl-2-thiourea
P003	107-02-8	Acrolein
P070	116-06-3	Aldicarb
P203	1646-88-4	<u>Aldicarb sulfone</u>
P004	309-00-2	Aldrin
P005	107-18-6	Allyl alcohol
P006	20859-73-8	Aluminum phosphide (R,T)
P007	2763-96-4	5-(Aminomethyl)-3-isoxazolol
P008	504-24-5	4-Aminopyridine
P009	131-74-8	Ammonium picrate (R)
P119	7803-55-6	Ammonium vanadate
P099	506-61-6	Argentate(1-), bis(cyano-C)-, potassium
P010	7778-39-4	Arsenic acid H ₃ AsO ₄
P012	1327-53-3	Arsenic oxide As ₂ O ₃
P011	1303-28-2	Arsenic oxide As ₂ O ₅
P011	1303-28-2	Arsenic pentoxide
P012	1327-53-3	Arsenic trioxide
P038	692-42-2	Arsine, diethyl-
P036	696-28-6	Arsonous dichloride, phenyl-
P054	151-56-4	Aziridine
P067	75-55-8	Aziridine, 2-methyl-
P013	542-62-1	Barium cyanide
P024	106-47-8	Benzenamine, 4-chloro-
P077	100-01-6	Benzenamine, 4-nitro-
P028	100-44-7	Benzene, (chloromethyl)-
P042	51-43-4	1,2-Benzenediol, 4-[1-hydroxy-2-(methylamino)ethyl]-, (R)-
P046	122-09-8	Benzeneethanamine, alpha,alpha-dimethyl-
P014	108-98-5	Benzenethiol
P127	1563-66-2	<u>7-Benzofuranol, 2,3-dihydro-2,2-dimethyl-, methylcarbamate</u>
P188	57-64-7	<u>Benzoic acid, 2-hydroxy-, compd. with (3aS-cis)-1,2,3,3a,8,8a-hexahydro-1,3a,8-trimethylpyrrolo[2,3-b]indol-5-yl methylcarbamate ester (1:1)</u>
P001	181-81-2	2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenylbutyl)-, & salts, when present at concentrations greater than 0.3%

P028	100-44-7
P015	7440-41-7
P017	598-31-2
P018	357-57-3
P045	39196-18-4
P021	592-01-8
P189	55285-14-8
P191	644-64-4
P192	119-38-0
P190	1129-41-5
P127	1563-66-2
P021	592-01-8
P022	75-15-0
P189	55285-14-8
P095	75-44-5
P023	107-20-0
P024	106-47-8
P026	5344-82-1
P027	542-76-7
P029	544-92-3
P029	544-92-3
P202	64-00-6
P030	
P031	460-19-5
P033	506-77-4
P033	506-77-4
P034	131-89-5
P016	542-88-1
P036	696-28-6
P037	60-57-1
P038	692-42-2
P041	311-45-5
P040	297-97-2
P043	55-91-4
P191	644-64-4
P004	309-00-2
P060	465-73-6
P037	60-57-1
P051	172-20-8
P044	60-51-5
P046	122-09-8
P047	1534-52-1
P048	51-28-5
P020	88-85-7
P085	152-16-9
P111	107-49-3

Benzyl chloride
Beryllium powder
Bromoacetone
Brucine
2-Butanone, 3,3-dimethyl-1-(methylthio)-, O-
[methylamino]carbonyl oxime
Calcium cyanide
<u>Carbamic acid, [(dibutylamino)-thio]methyl-, 2,3-dihydro-2,2-dimethyl-, 7-benzofuranyl ester</u>
<u>Carbamic acid, dimethyl-, 1-[(dimethyl-amino)carbonyl]- 5-methyl- 1H-pyrazol-3-yl ester</u>
<u>Carbamic acid, dimethyl-, 3-methyl- 1-(1-methylethyl)-1H-pyrazol-5-yl ester</u>
<u>Carbamic acid, methyl-, 3-methylphenyl ester</u>
Carbofuran
Calcium cyanide Ca(CN) ₂
Carbon disulfide
Carbosulfan
Carbonic dichloride
Chloroacetaldehyde
p-Chloroaniline
1-(o-Chlorophenyl)thiourea
3-Chloropropionitrile
Copper cyanide
Copper cyanide Cu(CN)
<u>m-Cumenyl methylcarbamate</u>
Cyanides (soluble cyanide salts), not otherwise specified
Cyanogen
Cyanogen chloride
Cyanogen chloride (CN)Cl
2-Cyclohexyl-4,6-dinitrophenol
Dichloromethyl ether
Dichlorophenylarsine
Dieldrin
Diethylarsine
Diethyl-p-nitrophenyl phosphate
O,O-Diethyl O-pyrazinyl phosphorothioate
Diisopropylfluorophosphate (DFP)
<u>Dimetilan</u>
1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexa-chloro-1,4,4a,5,8,8a,-hexahydro-, (1alpha,4alpha,4beta,5alpha,8alpha,8beta)-
1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexa-chloro-1,4,4a,5,8,8a,-hexahydro-, (1alpha,4alpha,4beta,5beta,8beta,8beta)-
2,7:3,6-Dimethanonaphth[2,3-b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1alpha,2beta,2alpha,3beta,6beta,6alpha,7beta, 7alpha)-
2,7:3,6-Dimethanonaphth [2,3-b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1alpha,2beta,2beta,3alpha,6alpha,6beta,7beta, 7alpha)-, & metabolites
Dimethoate
alpha,alpha-Dimethylphenethylamine
4,6-Dinitro-o-cresol, & salts
2,4-Dinitrophenol
Dinoseb
Diphosphoramidate, octamethyl-
Diphosphoric acid, tetraethyl ester

PERMANENT

P039	298-04-4	Disulfoton	P073	13463-39-3	Nickel carbonyl Ni(CO) ₄ , (T-4)-
P049	541-53-7	Dithiobiuret	P074	557-19-7	Nickel cyanide
P185	<u>26419-73-8</u>	<u>1,3-Dithiolane-2-carboxaldehyde,</u> <u>2,4-dimethyl-, O- [(methylamino)-</u> <u>carbonyl]oxime</u>	P074	557-19-7	Nickel cyanide Ni(CN) ₂
P050	115-29-7	Endosulfan	P075	154-11-5	Nicotine, & salts
P088	145-73-3	Endothall	P076	10102-43-9	Nitric oxide
P051	72-20-8	Endrin	P077	100-01-6	p-Nitroaniline
P051	72-20-8	Endrin, & metabolites	P078	10102-44-0	Nitrogen dioxide
P042	51-43-4	Epinephrine	P076	10102-43-9	Nitrogen oxide NO
P031	460-19-5	Ethanedinitrile	P078	10102-44-0	Nitrogen oxide NO ₂
P194	<u>23135-22-0</u>	<u>Ethanimidothioic acid, 2-</u> <u>(dimethylamino)-N-[(methylamino)</u> <u>carbonyl]oxy]-2-oxo-, methyl ester</u>	P081	55-63-0	Nitroglycerine (R)
P066	16752-77-5	Ethanimidothioic acid, N- [[[(methylamino)carbonyl]oxy]-, methyl ester	P082	62-75-9	N-Nitrosodimethylamine
P101	107-12-0	Ethyl cyanide	P084	4549-40-0	N-Nitrosomethylvinylamine
P054	151-56-4	Ethyleneimine	P085	152-16-9	Octamethylpyrophosphoramidate
P097	52-85-7	Famphur	P087	20816-12-0	Osmium oxide OsO ₄ , (T-4)-
P056	7782-41-4	Fluorine	P087	20816-12-0	Osmium tetroxide
P057	640-19-7	Fluoroacetamide	P088	145-73-3	7-Oxabicyclo[2.2.1]heptane-2,3- dicarboxylic acid
P058	62-74-8	Fluoroacetic acid, sodium salt	P194	<u>23135-22-0</u>	<u>Oxamyl</u>
P198	<u>23422-53-9</u>	<u>Formetanate hydrochloride</u>	P089	<u>56-38-2</u>	<u>Parathion</u>
P197	<u>17702-57-7</u>	<u>Formparanate</u>	P034	<u>131-89-5</u>	<u>Phenol, 2-cyclohexyl-4,6-dinitro-</u>
P065	628-86-4	Fulminic acid, mercury(2+) salt (R,T)	P128	<u>315-18-4</u>	<u>Phenol, 4-(dimethylamino)-3,5-</u> <u>dimethyl-, methylcarbamate (ester)</u>
P059	76-44-8	Heptachlor	P199	<u>2032-65-7</u>	<u>Phenol, (3,5-dimethyl-4-</u> <u>(methylthio)-, methylcarbamate</u>
P062	757-58-4	Hexaethyl tetraphosphate	P048	51-28-5	Phenol, 2,4-dinitro-
P116	79-19-6	Hydrazinecarbothioamide	P047	1534-52-1	Phenol, 2-methyl-4,6-dinitro-, & salts
P068	60-34-4	Hydrazine, methyl-	P202	<u>64-00-6</u>	<u>Phenol, 3-(1-methylethyl)-, methyl</u> <u>carbamate</u>
P063	74-90-8	Hydrocyanic acid	P201	<u>2631-37-0</u>	<u>Phenol, 3-methyl-5-(1-methylethyl)-,</u> <u>methyl carbamate</u>
P063	74-90-8	Hydrogen cyanide	P020	88-85-7	Phenol, 2-(1-methylpropyl)-4,6- dinitro-
P096	7803-51-2	Hydrogen phosphide	P009	131-74-8	Phenol, 2,4,6-trinitro-, ammonium salt (R)
P060	465-73-6	Isodrin	P092	62-38-4	Phenylmercury acetate
P192	119-38-0	Isolan	P093	103-85-5	Phenylthiourea
P202	<u>64-00-6</u>	<u>3-Isopropylphenyl N-</u> <u>methylcarbamate</u>	P094	298-02-2	Phorate
P007	2763-96-4	3(2H)-Isoxazolone, 5- (aminomethyl)-	P095	75-44-5	Phosgene
P196	<u>15339-36-3</u>	<u>Manganese,</u> <u>bis(dimethylcarbamodithioato-S,S')</u> <u>Manganese dimethyldithiocarbamate</u>	P096	7803-51-2	Phosphine
P196	<u>15339-36-3</u>	<u>Manganese dimethyldithiocarbamate</u>	P041	311-45-5	Phosphoric acid, diethyl 4- nitrophenyl ester
P092	62-38-4	Mercury, (acetato-O)phenyl-	P039	298-04-4	Phosphorodithioic acid, O,O- diethyl S-[2-(ethylthio)ethyl] ester
P065	628-86-4	Mercury fulminate (R,T)	P094	298-02-2	Phosphorodithioic acid, O,O- diethyl S-[(ethylthio)methyl] ester
P198	<u>23422-53-9</u>	<u>Methanimidamide, N,N-dimethyl-</u> <u>N'-[3-[[[(methylamino)-</u> <u>carbonyl]oxy]phenyl]-,</u> <u>monohydrochloride</u>	P044	60-51-5	Phosphorodithioic acid, O,O- dimethyl S-[2-(methylamino)-2- oxoethyl] ester
P197	<u>17702-57-7</u>	<u>Methanimidamide, N,N-dimethyl-</u> <u>N'-[2-methyl-4-</u> <u>[[[(methylamino)carbonyl]oxy]</u> <u>phenyl]-</u>	P043	55-91-4	Phosphorofluoridic acid, bis(1- methylethyl) ester
P082	62-75-9	Methanamine, N-methyl-N- nitroso-	P089	56-38-2	Phosphorothioic acid, O,O-diethyl O-(4-nitrophenyl) ester
P064	624-83-9	Methane, isocyanato-	P040	297-97-2	Phosphorothioic acid, O,O-diethyl O-pyrazinyl ester
P016	542-88-1	Methane, oxybis[chloro-	P097	52-85-7	Phosphorothioic acid, O-[4- [[dimethylamino)sulfonyl]phenyl] O,O-dimethyl ester
P112	509-14-8	Methane, tetranitro- (R)	P071	298-00-0	Phosphorothioic acid, O,O- dimethyl O-(4-nitrophenyl) ester
P118	75-70-7	Methanethiol, trichloro-	P204	<u>57-47-6</u>	<u>Physostigmine</u>
P050	115-29-7	6,9-Methano-2,4,3- benzodioxathiepin, 6,7,8,9,10,10- hexachloro-1,5,5a,6,9,9a- hexahydro-, 3-oxide	P188	<u>57-64-7</u>	<u>Physostigmine salicylate</u>
P059	76-44-8	4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro- 3a,4,7,7a-tetrahydro-	P110	<u>78-00-2</u>	Plumbane, tetraethyl-
P199	<u>2032-65-7</u>	<u>Methiocarb</u>	P098	151-50-8	Potassium cyanide
P066	<u>16752-77-5</u>	<u>Methomyl</u>	P098	151-50-8	Potassium cyanide K(CN)
P068	60-34-4	Methyl hydrazine	P099	506-61-6	Potassium silver cyanide
P064	624-83-9	Methyl isocyanate	P201	<u>2631-37-0</u>	<u>Promecarb</u>
P069	75-86-5	2-Methylactonitrile	P203	<u>1646-88-4</u>	<u>Propanal, 2-methyl-2-(methyl-</u> <u>sulfonyl)-, O-</u> <u>[(methylamino)carbonyl] oxime</u>
P071	298-00-0	Methyl parathion	P070	116-06-3	Propanal, 2-methyl-2- (methylthio)-, O- [(methylamino)carbonyl]oxime
P190	<u>1129-41-5</u>	<u>Metolcarb</u>	P101	107-12-0	Propanenitrile
P128	<u>315-18-4</u>	<u>Mexacarbate</u>	P027	542-76-7	Propanenitrile, 3-chloro-
P072	86-88-4	alpha-Naphthylthiourea			
P073	13463-39-3	Nickel carbonyl			

P069	75-86-5	Propanenitrile, 2-hydroxy-2-methyl-
P081	55-63-0	1,2,3-Propanetriol, trinitrate (R)
P017	598-31-2	2-Propanone, 1-bromo-
P102	107-19-7	Propargyl alcohol
P003	107-02-8	2-Propenal
P005	107-18-6	2-Propen-1-ol
P067	75-55-8	1,2-Propylenimine
P102	107-19-7	2-Propyn-1-ol
P008	504-24-5	4-Pyridinamine
P075	¹ 54-11-5	Pyridine, 3-(1-methyl-2-pyrrolidinyl)-, (S)-, & salts
<u>P204</u>	<u>57-47-6</u>	<u>Pyrrolo[2,3-b]indol-5-ol, 1,2,3,3a,8,8a-hexahydro-1,3a,8-trimethyl-, methylcarbamate (ester), (3aS-cis)-</u>
P114	12039-52-0	Selenious acid, dithallium(1+) salt
P103	630-10-4	Selenourea
P104	506-64-9	Silver cyanide
P104	506-64-9	Silver cyanide Ag(CN)
P105	26628-22-8	Sodium azide
P106	143-33-9	Sodium cyanide
P106	143-33-9	Sodium cyanide Na(CN)
P108	¹ 57-24-9	Strychnidin-10-one, & salts
P018	357-57-3	Strychnidin-10-one, 2,3-dimethoxy-
P108	¹ 57-24-9	Strychnine, & salts
P115	7446-18-6	Sulfuric acid, dithallium(1+) salt
P109	3689-24-5	Tetraethylthiopyrophosphate
P110	78-00-2	Tetraethyl lead
P111	107-49-3	Tetraethyl pyrophosphate
P112	509-14-8	Tetranitromethane (R)
P062	757-58-4	Tetraphosphoric acid, hexaethyl ester
P113	1314-32-5	Thallic oxide
P113	1314-32-5	Thallium oxide Tl ₂ O ₃
P114	12039-52-0	Thallium(I) selenite
P115	7446-18-6	Thallium(I) sulfate
P109	3689-24-5	Thiodiphosphoric acid, tetraethyl ester
P045	39196-18-4	Thiofanox
P049	541-53-7	Thioimidodicarbonic diamide [(H ₂ N)C(S)] ₂ NH
P014	108-98-5	Thiophenol
P116	79-19-6	Thiosemicarbazide
P026	5344-82-1	Thiourea, (2-chlorophenyl)-
P072	86-88-4	Thiourea, 1-naphthalenyl-
P093	103-85-5	Thiourea, phenyl-
<u>P185</u>	<u>26419-73-8</u>	<u>Tirpate</u>
P123	8001-35-2	Toxaphene
P118	75-70-7	Trichloromethanethiol
P119	7803-55-6	Vanadic acid, ammonium salt
P120	1314-62-1	Vanadium oxide V ₂ O ₅
P120	1314-62-1	Vanadium pentoxide
P084	4549-40-0	Vinylamine, N-methyl-N-nitroso-
P001	¹ 81-81-2	Warfarin, & salts, when present at concentrations greater than 0.3%
<u>P205</u>	<u>137-30-4</u>	<u>Zinc, bis(dimethylcarbamodithioato-S,S')</u>
P121	557-21-1	Zinc cyanide
P121	557-21-1	Zinc cyanide Zn(CN) ₂
P122	1314-84-7	Zinc phosphide Zn ₃ P ₂ , when present at concentrations greater than 10% (R,T)
<u>P205</u>	<u>137-30-4</u>	<u>Ziram</u>

(Ignitability) and C (Corrosivity). Absence of a letter indicates that the compound is only listed for toxicity.

The "U" wastes and their corresponding Dangerous Waste Numbers are:

Hazardous Waste No.	Chemical Abstracts No.	Substance
<u>U394</u>	<u>30558-43-1</u>	<u>A2213</u>
<u>U001</u>	<u>75-07-0</u>	Acetaldehyde (I)
<u>U034</u>	<u>75-87-6</u>	Acetaldehyde, trichloro-
<u>U187</u>	<u>62-44-2</u>	Acetamide, N-(4-ethoxyphenyl)-
<u>U005</u>	<u>53-96-3</u>	Acetamide, N-9H-fluoren-2-yl-
<u>U240</u>	<u>194-75-7</u>	Acetic acid, (2,4-dichlorophenoxy)-, salts & esters
<u>U112</u>	<u>141-78-6</u>	Acetic acid ethyl ester (I)
<u>U144</u>	<u>301-04-2</u>	Acetic acid, lead(2+) salt
<u>U214</u>	<u>563-68-8</u>	Acetic acid, thallium(1+) salt
See F027	<u>93-76-5</u>	Acetic acid, (2,4,5-trichlorophenoxy)-
<u>U002</u>	<u>67-64-1</u>	Acetone (I)
<u>U003</u>	<u>75-05-8</u>	Acetonitrile (I,T)
<u>U004</u>	<u>98-86-2</u>	Acetophenone
<u>U005</u>	<u>53-96-3</u>	2-Acetylaminofluorene
<u>U006</u>	<u>75-36-5</u>	Acetyl chloride (C,R,T)
<u>U007</u>	<u>79-06-1</u>	Acrylamide
<u>U008</u>	<u>79-10-7</u>	Acrylic acid (I)
<u>U009</u>	<u>107-13-1</u>	Acrylonitrile
<u>U011</u>	<u>61-82-5</u>	Amitrole
<u>U012</u>	<u>62-53-3</u>	Aniline (I,T)
<u>U136</u>	<u>75-60-5</u>	Arsinic acid, dimethyl-
<u>U014</u>	<u>492-80-8</u>	Auramine
<u>U015</u>	<u>115-02-6</u>	Azaserine
<u>U010</u>	<u>50-07-7</u>	Azirino[2',3':3,4]pyrrolo[1,2-a]indole-4,7-dione, 6-amino-8-[[aminocarbonyloxy]methyl]-1,1a,2,8,8a,8b-hexahydro-8a-methoxy-5-methyl-, [1aS-(1aalpha, 8beta, 8aalpha, 8balpha)]-
<u>U280</u>	<u>101-27-9</u>	<u>Barban</u>
<u>U278</u>	<u>22781-23-3</u>	<u>Bendiocarb</u>
<u>U364</u>	<u>22961-82-6</u>	<u>Bendiocarb phenol</u>
<u>U271</u>	<u>17804-35-2</u>	<u>Benomyl</u>
<u>U157</u>	<u>56-49-5</u>	Benz[j]aceanthrylene, 1,2-dihydro-3-methyl-
<u>U016</u>	<u>225-51-4</u>	Benz[c]acridine
<u>U017</u>	<u>98-87-3</u>	Benzal chloride
<u>U192</u>	<u>23950-58-5</u>	Benzamide, 3,5-dichloro-N-(1,1-dimethyl-2-propynyl)-
<u>U018</u>	<u>56-55-3</u>	Benz[a]anthracene
<u>U094</u>	<u>57-97-6</u>	Benz[a]anthracene, 7,12-dimethyl-
<u>U012</u>	<u>62-53-3</u>	Benzenamine (I,T)
<u>U014</u>	<u>492-80-8</u>	Benzenamine, 4,4'-carbonimidoyl[bis[N,N-dimethyl-]
<u>U049</u>	<u>3165-93-3</u>	Benzenamine, 4-chloro-2-methyl-, hydrochloride
<u>U093</u>	<u>60-11-7</u>	Benzenamine, N,N-dimethyl-4-(phenylazo)-
<u>U328</u>	<u>95-53-4</u>	Benzenamine, 2-methyl-
<u>U353</u>	<u>106-49-0</u>	Benzenamine, 4-methyl-
<u>U158</u>	<u>101-14-4</u>	Benzenamine, 4,4'-methylenebis[2-chloro-
<u>U222</u>	<u>636-21-5</u>	Benzenamine, 2-methyl-, hydrochloride
<u>U181</u>	<u>99-55-8</u>	Benzenamine, 2-methyl-5-nitro-
<u>U019</u>	<u>71-43-2</u>	Benzene (I,T)
<u>U038</u>	<u>510-15-6</u>	Benzenoacetic acid, 4-chloro-alpha-(4-chlorophenyl)-alpha-hydroxy-, ethyl ester
<u>U030</u>	<u>101-55-3</u>	Benzene, 1-bromo-4-phenoxy-
<u>U035</u>	<u>305-03-3</u>	Benzenobutanoic acid, 4-[bis(2-chloroethyl)amino]-
<u>U037</u>	<u>108-90-7</u>	Benzene, chloro-
<u>U221</u>	<u>25376-45-8</u>	Benzenediamine, ar-methyl-
<u>U028</u>	<u>117-81-7</u>	1,2-Benzenedicarboxylic acid, bis(2-ethylhexyl) ester

FOOTNOTE: ¹CAS Number given for parent compound only.

"U" Chemical Products

Comment: For the convenience of the regulated community, the primary hazardous properties of these materials have been indicated by the letters T (Toxicity), R (Reactivity), I

PERMANENT

U069	84-74-2	1,2-Benzenedicarboxylic acid, dibutyl ester	U143	303-34-4	2-Butenoic acid, 2-methyl-, 7-[[2,3-dihydroxy- 2-(1-methoxyethyl)-3-methyl-1-oxobutoxy]methyl]- 2,3,5,7a-tetrahydro-1H-pyrrolizin-1-yl ester, [1S-[1alpha(Z),7(2S*,3R*),7aalpha)]-n-Butyl alcohol (I)
U088	84-66-2	1,2-Benzenedicarboxylic acid, diethyl ester			Cacodylic acid
U102	131-11-3	1,2-Benzenedicarboxylic acid, dimethyl ester			Calcium chromate
U107	117-84-0	1,2-Benzenedicarboxylic acid, dioctyl ester	U031	71-36-3	Carbamic acid, ethyl ester
U070	95-50-1	Benzene, 1,2-dichloro-	U136	75-60-5	Carbamic acid, methylnitroso-, ethyl ester
U071	541-73-1	Benzene, 1,3-dichloro-	U032	13765-19-0	<u>Carbamic acid, 1H-benzimidazol-2-yl, methyl ester</u>
U072	106-46-7	Benzene, 1,4-dichloro-	U238	51-79-6	<u>Carbamic acid, [1-[(butylamino)carbonyl]-1H-benzimidazol-2-yl]-, methyl ester</u>
U060	72-54-8	Benzene, 1,1'-(2,2-dichloroethylidene)bis[4-chloro-	U178	615-53-2	<u>Carbamic acid, [1-[(butylamino)carbonyl]-1H-benzimidazol-2-yl]-, methyl ester</u>
U017	98-87-3	Benzene, (dichloromethyl)-	U372	10605-21-7	<u>Carbamic acid, [1,2-phenylenebis(iminocarbonothioyl)]bis-, dimethyl ester</u>
U223	26471-62-5	Benzene, 1,3-diisocyanatomethyl-(R,T)	U271	17804-35-2	Carbamic chloride, dimethyl-
U239	1330-20-7	Benzene, dimethyl- (1,T)			Carbamodithioic acid, 1,2-ethanediybis-, salts & esters
U201	108-46-3	1,3-Benzenediol	U280	101-27-9	Carbamothioic acid, bis(1-methylethyl)-, S-(2,3-dichloro-2-propenyl) ester
U127	118-74-1	Benzene, hexachloro-			<u>Carbamothioic acid, bis(1-methylethyl)-, S-(2,3,3-trichloro-2-propenyl) ester</u>
U056	110-82-7	Benzene, hexahydro- (I)	U280	101-27-9	<u>Carbamothioic acid, dipropyl-, S-(phenylmethyl) ester</u>
U220	108-88-3	Benzene, methyl-			<u>Carbaryl</u>
U105	121-14-2	Benzene, 1-methyl-2,4-dinitro-	U373	122-42-9	<u>Carbazim</u>
U106	606-20-2	Benzene, 2-methyl-1,3-dinitro-			<u>Carbofuran phenol</u>
U055	98-82-8	Benzene, (1-methylethyl)- (I)	U409	23564-05-8	Carbonic acid, diethallium(1+) salt
U169	98-95-3	Benzene, nitro-			Carbonic difluoride
U183	608-93-5	Benzene, pentachloro-	U097	79-44-7	Carbonochloridic acid, methyl ester (I,T)
U185	82-68-8	Benzene, pentachloronitro-	U114	111-54-6	Carbon oxyfluoride (R,T)
U020	98-09-9	Benzenesulfonic acid chloride (C,R)	U062	2303-16-4	Carbon tetrachloride
U020	98-09-9	Benzenesulfonyl chloride (C,R)			Chloral
U207	95-94-3	Benzene, 1,2,4,5-tetrachloro-			Chlorambucil
U061	50-29-3	Benzene, 1,1'-(2,2,2-trichloroethylidene)bis[4-chloro-	U389	2303-17-5	Chlordane, alpha & gamma isomers
U247	72-43-5	Benzene, 1,1'-(2,2,2-trichloroethylidene)bis[4-methoxy-			Chlornaphazin
			U387	52888-80-9	Chlorobenzene
U023	98-07-7	Benzene, (trichloromethyl)-			Chlorobenzilate
U234	99-35-4	Benzene, 1,3,5-trinitro-	U279	63-25-2	p-Chloro-m-cresol
U021	92-87-5	Benzidine	U372	10605-21-7	2-Chloroethyl vinyl ether
U202	181-07-2	1,2-Benzisothiazol-3(2H)-onc, 1,1-dioxide, & salts	U367	1563-38-8	Chloroform
			U215	6533-73-9	Chloromethyl methyl ether
U278	22781-23-3	<u>1,3-Benzodioxol-4-ol, 2,2-dimethyl-, methyl carbamate</u>	U033	353-50-4	beta-Chloronaphthalene
U364	22961-82-6	<u>1,3-Benzodioxol-4-ol, 2,2-dimethyl-</u>	U156	79-22-1	o-Chlorophenol
U203	94-59-7	<u>1,3-Benzodioxole, 5-(2-propenyl)-</u>	U033	353-50-4	4-Chloro-o-toluidine, hydrochloride
U141	120-58-1	<u>1,3-Benzodioxole, 5-(1-propenyl)-</u>	U211	56-23-5	Chromic acid H ₂ CrO ₄ , calcium salt
U090	94-58-6	<u>1,3-Benzodioxole, 5-propyl-</u>	U034	75-87-6	Chrysene
U367	1563-38-8	<u>7-Benzofuranol, 2,3-dihydro-2,2-dimethyl-</u>	U035	305-03-3	Creosote
U064	189-55-9	<u>Benzo[rs]pentaphene</u>	U036	57-74-9	Cresol (Cresylic acid)
U248	181-81-2	2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenylbutyl)-, & salts, when present at concentrations of 0.3% or less			Crotonaldehyde
			U026	494-03-1	Cumene (I)
			U037	108-90-7	Cyanogen bromide (CN)Br
			U038	510-15-6	2,5-Cyclohexadiene-1,4-dione
			U039	59-50-7	Cyclohexane (I)
U022	50-32-8	Benzo[a]pyrene	U042	110-75-8	Cyclohexane, 1,2,3,4,5,6-hexachloro-, (1alpha,2alpha,3beta,4alpha,5alpha,6beta)-
U197	106-51-4	p-Benzoquinone	U044	67-66-3	Cyclohexanone (I)
U023	98-07-7	Benzotrichloride (C,R,T)	U046	107-30-2	
U085	1464-53-5	2,2'-Bioxirane	U047	91-58-7	
U021	92-87-5	[1,1'-Biphenyl]-4,4'-diamine	U048	95-57-8	
U073	91-94-1	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dichloro-	U049	3165-93-3	
U091	119-90-4	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethoxy-	U032	13765-19-0	
U095	119-93-7	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethyl-	U050	218-01-9	
			U051		
U225	75-25-2	Bromoform	U052	1319-77-3	
U030	101-55-3	4-Bromophenyl phenyl ether	U053	4170-30-3	
U128	87-68-3	1,3-Butadiene, 1,1,2,3,4,4-hexachloro-	U055	98-82-8	
			U246	506-68-3	
U172	924-16-3	1-Butanamine, N-butyl-N-nitroso-	U197	106-51-4	
U031	71-36-3	1-Butanol (I)	U056	110-82-7	
U159	78-93-3	2-Butanone (I,T)	U129	58-89-9	
U160	1338-23-4	2-Butanone, peroxide (R,T)			
U053	4170-30-3	2-Butenal			
U074	764-41-0	2-Butene, 1,4-dichloro- (I,T)	U057	108-94-1	

PERMANENT

U130	77-47-4	1,3-Cyclopentadiene, 1,2,3,4,5,5-hexachloro-	U227	79-00-5	Ethane, 1,1,2-trichloro-
U058	50-18-0	Cyclophosphamide	<u>U410</u>	<u>59669-26-0</u>	<u>Ethanimidothioic acid, N,N'-(thiobis((methylimino)carbonyloxy))bis-, dimethyl ester</u>
U240	¹ 94-75-7	2,4-D, salts & esters			<u>Ethanimidothioic acid, 2-(dimethylamino)-N-hydroxy-2-oxo-, methyl ester</u>
U059	20830-81-3	Daunomycin	<u>U394</u>	<u>30558-43-1</u>	Ethanol, 2-ethoxy-
U060	72-54-8	DDD			Ethanol, 2,2'-(nitrosoimino)bis-
U061	50-29-3	DDT			<u>Ethanol, 2,2'-oxybis-, dicarbamate</u>
U062	2303-16-4	Diallate			Ethanone, 1-phenyl-
U063	53-70-3	Dibenz[a,h]anthracene	U359	110-80-5	Ethene, chloro-
U064	189-55-9	Dibenzo[a,i]pyrene	U173	1116-54-7	Ethene, (2-chloroethoxy)-
U066	96-12-8	1,2-Dibromo-3-chloropropane	<u>U395</u>	<u>5952-26-1</u>	Ethene, 1,1-dichloro-
U069	84-74-2	Dibutyl phthalate	<u>U004</u>	<u>98-86-2</u>	Ethene, 1,2-dichloro-, (E)-
U070	95-50-1	o-Dichlorobenzene	U043	75-01-4	Ethene, tetrachloro-
U071	541-73-1	m-Dichlorobenzene	U042	110-75-8	Ethene, trichloro-
U072	106-46-7	p-Dichlorobenzene	U078	75-35-4	Ethyl acetate (I)
U073	91-94-1	3,3'-Dichlorobenzidine	U079	156-60-5	Ethyl acrylate (I)
U074	764-41-0	1,4-Dichloro-2-butene (I,T)	U210	127-18-4	Ethyl carbamate (urethane)
U075	75-71-8	Dichlorodifluoromethane	U228	79-01-6	Ethyl ether (I)
U078	75-35-4	1,1-Dichloroethylene	U112	141-78-6	Ethylenebisdiisocarbamic acid, salts & esters
U079	156-60-5	1,2-Dichloroethylene	U113	140-88-5	Ethylene dibromide
U025	111-44-4	Dichloroethyl ether	U238	51-79-6	Ethylene dichloride
U027	108-60-1	Dichloroisopropyl ether	U117	60-29-7	Ethylene glycol monoethyl ether
U024	111-91-1	Dichloromethoxy ethane	U114	¹ 111-54-6	Ethylene oxide (I,T)
U081	120-83-2	2,4-Dichlorophenol			Ethylenethiourea
U082	87-65-0	2,6-Dichlorophenol	U067	106-93-4	Ethylidene dichloride
U084	542-75-6	1,3-Dichloropropene	U077	107-06-2	Ethyl methacrylate
U085	1464-53-5	1,2:3,4-Diepoxybutane (I,T)	U359	110-80-5	Ethyl methanesulfonate
<u>U395</u>	<u>5952-26-1</u>	<u>Diethylene glycol, dicarbamate</u>	U115	75-21-8	Fluoranthene
U108	123-91-1	1,4-Diethyleneoxide	U116	96-45-7	Formaldehyde
U028	117-81-7	Diethylhexyl phthalate	U076	75-34-3	Formic acid (C,T)
U086	1615-80-1	N,N'-Diethylhydrazine	U118	97-63-2	Furan (I)
U087	3288-58-2	O,O-Diethyl S-methyl dithiophosphate	U119	62-50-0	2-Furancarboxaldehyde (I)
U088	84-66-2	Diethyl phthalate	U120	206-44-0	2,5-Furandione
U089	56-53-1	Diethylstilbesterol	U122	50-00-0	Furan, tetrahydro-(1)
U090	94-58-6	Dihydrosafrole	U123	64-18-6	Furfural (I)
U091	119-90-4	3,3'-Dimethoxybenzidine	U124	110-00-9	Furfuran (I)
U092	124-40-3	Dimethylamine (I)	U125	98-01-1	Glucopyranose, 2-deoxy-2-(3-methyl-3-nitrosoureido)-, D-
U093	60-11-7	p-Dimethylaminoazobenzene	U147	108-31-6	D-Glucose, 2-deoxy-2-[[[(methylnitrosoamino)carbonyl]amino]-glycidyl]aldehyde
U094	57-97-6	7,12-Dimethylbenz[a]anthracene	U213	109-99-9	Guanidine, N-methyl-N'-nitro-N-nitroso-
U095	119-93-7	3,3'-Dimethylbenzidine	U125	98-01-1	Hexachlorobenzene
U096	80-15-9	alpha,alpha-Dimethylbenzylhydroperoxide (R)	U124	110-00-9	Hexachlorobutadiene
U097	79-44-7	Dimethylcarbamoyl chloride	U206	18883-66-4	Hexachlorocyclopentadiene
U098	57-14-7	1,1-Dimethylhydrazine			Hexachloroethane
U099	540-73-8	1,2-Dimethylhydrazine			Hexachlorophene
U101	105-67-9	2,4-Dimethylphenol	U126	765-34-4	Hexachloropropene
U102	131-11-3	Dimethyl phthalate	U163	70-25-7	Hydrazine (R,T)
U103	77-78-1	Dimethyl sulfate			Hydrazine, 1,2-diethyl-
U105	121-14-2	2,4-Dinitrotoluene	U127	118-74-1	Hydrazine, 1,1-dimethyl-
U106	606-20-2	2,6-Dinitrotoluene	U128	87-68-3	Hydrazine, 1,2-dimethyl-
U107	117-84-0	Di-n-octyl phthalate	U130	77-47-4	Hydrazine, 1,2-diphenyl-
U108	123-91-1	1,4-Dioxane	U131	67-72-1	Hydrofluoric acid (C,T)
U109	122-66-7	1,2-Diphenylhydrazine	U132	70-30-4	Hydrogen fluoride (C,T)
U110	142-84-7	Dipropylamine (I)	U243	1888-71-7	Hydrogen sulfide
U111	621-64-7	Di-n-propylnitrosamine	U133	302-01-2	Hydrogen sulfide H ₂ S
U041	106-89-8	Epichlorohydrin	U086	1615-80-1	Hydroperoxide, 1-methyl-1-phenylethyl- (R)
U001	75-07-0	Ethanal (I)	U098	57-14-7	2-Imidazolidinethione
U174	55-18-5	Ethanamine, N-ethyl-N-nitroso-	U099	540-73-8	Indeno[1,2,3-cd]pyrene
<u>U404</u>	<u>121-44-8</u>	<u>Ethanamine, N,N-diethyl-</u>	U109	122-66-7	1,3-Isobenzofurandione
<u>U155</u>	<u>91-80-5</u>	<u>1,2-Ethanediamine, N,N-dimethyl-N'-2-pyridinyl-N'-(2-thienylmethyl)-</u>	U134	7664-39-3	Isobutyl alcohol (I,T)
U067	106-93-4	Ethane, 1,2-dibromo-	U134	7664-39-3	Isosafrole
U076	75-34-3	Ethane, 1,1-dichloro-	U135	7783-06-4	Kepone
U077	107-06-2	Ethane, 1,2-dichloro-	U096	80-15-9	Lasiocarpine
U131	67-72-1	Ethane, hexachloro-			Lead acetate
U024	111-91-1	Ethane, 1,1'-[methylenebis(oxy)]bis[2-chloro-	U116	96-45-7	Lead, bis(acetato-O)tetrahydroxytri-
U117	60-29-7	Ethane, 1,1'-oxybis-(I)	U137	193-39-5	
U025	111-44-4	Ethane, 1,1'-oxybis[2-chloro-	U190	85-44-9	
U184	76-01-7	Ethane, pentachloro-	U140	78-83-1	
U208	630-20-6	Ethane, 1,1,1,2-tetrachloro-	U141	120-58-1	
U209	79-34-5	Ethane, 1,1,2,2-tetrachloro-	U142	143-50-0	
U218	62-55-5	Ethanethioamide	U143	303-34-4	
U226	71-55-6	Ethane, 1,1,1-trichloro-	U144	301-04-2	
			U146	1335-32-6	

U145	7446-27-7	Lead phosphate	U169	98-95-3	Nitrobenzene (1,T)
U146	1335-32-6	Lead subacetate	U170	100-02-7	p-Nitrophenol
U129	58-89-9	Lindane	U171	79-46-9	2-Nitropropane (1,T)
U163	70-25-7	MNNG	U172	924-16-3	N-Nitrosodi-n-butylamine
U147	108-31-6	Maleic anhydride	U173	1116-54-7	N-Nitrosodiethanolamine
U148	123-33-1	Maleic hydrazide	U174	55-18-5	N-Nitrosodiethylamine
U149	109-77-3	Malononitrile	U176	759-73-9	N-Nitroso-N-ethylurea
U150	148-82-3	Melphalan	U177	684-93-5	N-Nitroso-N-methylurea
U151	7439-97-6	Mercury	U178	615-53-2	N-Nitroso-N-methylurethane
U152	126-98-7	Methacrylonitrile (I, T)	U179	100-75-4	N-Nitrosopiperidine
U092	124-40-3	Methanamine, N-methyl- (I)	U180	930-55-2	N-Nitrosopyrrolidine
U029	74-83-9	Methane, bromo-	U181	99-55-8	5-Nitro-o-toluidine
U045	74-87-3	Methane, chloro- (I, T)	U193	1120-71-4	1,2-Oxathiolane, 2,2-dioxide
U046	107-30-2	Methane, chloromethoxy-	U058	50-18-0	2H-1,3,2-Oxazaphosphorin-2-amine, N,N-bis(2-chloroethyl)tetrahydro-, 2-oxide
U068	74-95-3	Methane, dibromo-			Oxirane (I,T)
U080	75-09-2	Methane, dichloro-	U115	75-21-8	Oxirane carboxaldehyde
U075	75-71-8	Methane, dichlorodifluoro-	U126	765-34-4	Oxirane, (chloromethyl)-
U138	74-88-4	Methane, iodo-	U041	106-89-8	Paraldehyde
U119	62-50-0	Methanesulfonic acid, ethyl ester	U182	123-63-7	Pentachlorobenzene
U211	56-23-5	Methane, tetrachloro-	U183	608-93-5	Pentachloroethane
U153	74-93-1	Methanethiol (I, T)	U184	76-01-7	Pentachloronitrobenzene (PCNB)
U225	75-25-2	Methane, tribromo-	U185	82-68-8	Pentachlorophenol
U044	67-66-3	Methane, trichloro-	See F027	87-86-5	Pentanol, 4-methyl-
U121	75-69-4	Methane, trichlorofluoro-	U161	108-10-1	1,3-Pentadiene (I)
U036	57-74-9	4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro-	U186	504-60-9	Phenacetin
		Methanol (I)	U187	62-44-2	Phenol
U154	67-56-1	Methapyrilene	U188	108-95-2	Phenol, 2-chloro-
U155	91-80-5	1,3,4-Metheno-2H-cyclobuta[cd]pentalen-2-one, 1,1a,3,3a,4,5,5a,5b,6-decachlorooctahydro-	U048	95-57-8	Phenol, 4-chloro-3-methyl-
U142	143-50-0	Methoxychlor	U039	59-50-7	Phenol, 2,4-dichloro-
		Methyl alcohol (I)	U081	120-83-2	Phenol, 2,6-dichloro-
U247	72-43-5	Methyl bromide	U082	87-65-0	Phenol, 4,4'-(1,2-diethyl-1,2-ethenediyl)bis-, (E)-
U154	67-56-1	1-Methylbutadiene (I)	U089	56-53-1	Phenol, 2,4-dimethyl-
U029	74-83-9	Methyl chloride (I,T)	U101	105-67-9	Phenol, methyl-
U186	504-60-9	Methyl chlorocarbonate (I,T)	U052	1319-77-3	Phenol, 2,2'-methylenebis[3,4,6-trichloro-
U045	74-87-3	Methyl chloroform	U132	70-30-4	Phenol, 2-(1-methylethoxy)-, methylcarbamate
U156	79-22-1	3-Methylcholanthrene	U411	114-26-1	Phenol, 4-nitro-
U226	71-55-6	4,4'-Methylenebis(2-chloroaniline)	U170	100-02-7	Phenol, pentachloro-
U157	56-49-5	Methylene bromide	See F027	87-86-5	Phenol, 2,3,4,6-tetrachloro-
U158	101-14-4	Methylene chloride	See F027	58-90-2	Phenol, 2,4,5-trichloro-
U068	74-95-3	Methyl ethyl ketone (MEK) (I,T)	See F027	95-95-4	Phenol, 2,4,6-trichloro-
U080	75-09-2	Methyl ethyl ketone peroxide (R,T)	See F027	88-06-2	L-Phenylalanine, 4-[bis(2-chloroethyl)amino]-
U159	78-93-3	Methyl iodide	U150	148-82-3	Phosphoric acid, lead(2+) salt (2:3)
U160	1338-23-4	Methyl isobutyl ketone (I)	U145	7446-27-7	Phosphorodithioic acid, O,O-diethyl S-methyl ester
U138	74-88-4	Methyl methacrylate (I,T)	U087	3288-58-2	Phosphorus sulfide (R)
U161	108-10-1	4-Methyl-2-pentanone (I)	U189	1314-80-3	Phthalic anhydride
U162	80-62-6	Methylthiouracil	U190	85-44-9	2-Picoline
U161	108-10-1	Mitomycin C	U191	109-06-8	Piperidine, 1-nitroso-
U164	56-04-2	5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy)-alpha-L-lyxo-hexopyranosyl]oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S-cis)-	U179	100-75-4	Pronamide
U010	50-07-7	1-Naphthalenamine	U192	23950-58-5	1-Propanamine (I,T)
U059	20830-81-3	2-Naphthalenamine	U194	107-10-8	1-Propanamine, N-nitroso-N-propyl-
U167	134-32-7	Naphthalenamine, N,N'-bis(2-chloroethyl)-	U111	621-64-7	1-Propanamine, N-propyl- (I)
U168	91-59-8	Naphthalene	U110	142-84-7	Propane, 1,2-dibromo-3-chloro-
U026	494-03-1	Naphthalene, 2-chloro-	U066	96-12-8	Propane, 1,2-dichloro-
U165	91-20-3	1,4-Naphthalenedione	U083	78-87-5	Propanedinitrile
U047	91-58-7	2,7-Naphthalenedisulfonic acid, 3,3'-[(3,3'-dimethyl[1,1'-biphenyl]-4,4'-diyl)bis(azo)bis[5-amino-4-hydroxy]-, tetrasodium salt	U149	109-77-3	Propane, 2-nitro- (I,T)
U166	130-15-4	1-Naphthalenol, methylcarbamate	U171	79-46-9	Propane, 2,2'-oxybis[2-chloro-1,3-Propane sultone
U236	72-57-1	1,4-Naphthoquinone	U027	108-60-1	Propanoic acid, 2-(2,4,5-trichlorophenoxy)-
U279	63-25-2	alpha-Naphthylamine	U193	1120-71-4	1-Propanol, 2,3-dibromo-, phosphate (3:1)
U166	130-15-4	beta-Naphthylamine	See F027	93-72-1	1-Propanol, 2-methyl- (I,T)
U167	134-32-7	Nitric acid, thallium(I+) salt	U235	126-72-7	2-Propanone (I)
U168	91-59-8		U140	78-83-1	2-Propanamide
U217	10102-45-1		U002	67-64-1	1-Propene, 1,3-dichloro-
			U007	79-06-1	1-Propene, 1,1,2,3,3,3-hexachloro-
			U084	542-75-6	
			U243	1888-71-7	

U009 107-13-1
 U152 126-98-7
 U008 79-10-7
 U113 140-88-5
 U118 97-63-2

 U162 80-62-6

U373 122-42-9
U411 114-26-1
U387 52888-80-9
 U194 107-10-8
 U083 78-87-5
 U148 123-33-1
 U196 110-86-1
 U191 109-06-8
 U237 66-75-1

 U164 56-04-2

 U180 930-55-2
 U200 50-55-5
 U201 108-46-3
 U202 ¹81-07-2
 U203 94-59-7
 U204 7783-00-8
 U204 7783-00-8
 U205 7488-56-4
 U205 7488-56-4
 U015 115-02-6
 See F027 93-72-1
 U206 18883-66-4
 U103 77-78-1
 U189 1314-80-3
 See F027 93-76-5
 U207 95-94-3
 U208 630-20-6
 U209 79-34-5
 U210 127-18-4
 See F027 58-90-2
 U213 109-99-9
 U214 563-68-8
 U215 6533-73-9
 U216 7791-12-0
 U216 7791-12-0
 U217 10102-45-1
 U218 62-55-5
U410 59669-26-0
U153 74-93-1
 U244 137-26-8

U409 23564-05-8
 U219 62-56-6
 U244 137-26-8
 U220 108-88-3
 U221 25376-45-8
 U223 26471-62-5
 U328 95-53-4
 U353 106-49-0
 U222 636-21-5
U389 2303-17-5
 U011 61-82-5
 U227 79-00-5
 U228 79-01-6
 U121 75-69-4
 See F027 95-95-4
 See F027 88-06-2
U404 121-44-8
U234 99-35-4
 U182 123-63-7
 U235 126-72-7

 U236 72-57-1
 U237 66-75-1
 U176 759-73-9
 U177 684-93-5

2-Propenenitrile
 2-Propenenitrile, 2-methyl- (I,T)
 2-Propenoic acid (I)
 2-Propenoic acid, ethyl ester (I)
 2-Propenoic acid, 2-methyl-, ethyl ester
 2-Propenoic acid, 2-methyl-, methyl ester (I,T)
Propham
Propoxur
Prosulfocarb
 n-Propylamine (I,T)
 Propylene dichloride
 3,6-Pyridazinedione, 1,2-dihydro-
 Pyridine
 Pyridine, 2-methyl-
 2,4-(1H,3H)-Pyrimidinedione, 5-[bis(2-chloroethyl)amino]-
 4(1H)-Pyrimidinone, 2,3-dihydro-
 6-methyl-2-thioxo-
 Pyrrolidine, 1-nitroso-
 Reserpine
 Resorcinol
 Saccharin, & salts
 Safrole
 Selenious acid
 Selenium dioxide
 Selenium sulfide
 Selenium sulfide SeS₂ (R,T)
 L-Serine, diazoacetate (ester)
 Silvex (2,4,5-TP)
 Streptozotocin
 Sulfuric acid, dimethyl ester
 Sulfur phosphide (R)
 2,4,5-T
 1,2,4,5-Tetrachlorobenzene
 1,1,1,2-Tetrachloroethane
 1,1,2,2-Tetrachloroethane
 Tetrachloroethylene
 2,3,4,6-Tetrachlorophenol
 Tetrahydrofuran (I)
 Thallium(I) acetate
 Thallium(I) carbonate
 Thallium(I) chloride
 Thallium chloride TlCl
 Thallium(I) nitrate
 Thioacetamide
Thiodicarb
 Thiomethanol (I,T)
 Thioperoxydicarbonic diamide [(H₂N)C(S)]₂S₂, tetramethyl-
Thiophanate-methyl
 Thiourea
 Thiram
 Toluene
 Toluenediamine
 Toluene diisocyanate (R,T)
 o-Toluidine
 p-Toluidine
 o-Toluidine hydrochloride
Triallate
 1H-1,2,4-Triazol-3-amine
 1,1,2-Trichloroethane
 Trichloroethylene
 Trichloromonofluoromethane
 2,4,5-Trichlorophenol
 2,4,6-Trichlorophenol
Triethylamine
 1,3,5-Trinitrobenzene (R,T)
 1,3,5-Trioxane, 2,4,6-trimethyl-
 Tris(2,3-dibromopropyl) phosphate
 Trypan blue
 Uracil mustard
 Urea, N-ethyl-N-nitroso-
 Urea, N-methyl-N-nitroso-

U043 75-01-4
 U248 ¹81-81-2

 U239 1330-20-7
 U200 50-55-5

 U249 1314-84-7

Vinyl chloride
 Warfarin, & salts, when present at concentrations of 0.3% or less
 Xylene (I)
 Yohimban-16-carboxylic acid, 11,17-dimethoxy-18-[(3,4,5-trimethoxybenzoyl)oxy]-, methyl ester, (3beta,16beta,17alpha,18beta,20alpha)-
 Zinc phosphide Zn₃P₂, when present at concentrations of 10% or less

FOOTNOTE: ¹CAS Number given for parent compound only.

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 Order 94-30, filed 10/19/95, effective 11/19/95)

WAC 173-303-9904 Dangerous waste sources list.
 The following Hazard Codes are used to indicate the basis EPA used for listing the classes or types of wastes listed in this section:

- Ignitable Waste (I)
- Corrosive Waste (C)
- Reactive Waste (R)
- Toxicity Characteristic Waste (E)
- Acute Hazardous Waste (H)
- Toxic Waste (T)

DAANGEROUS WASTE SOURCES LIST

Dangerous Waste No.	Sources
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Nonspecific Sources

Generic:

- F001 The following spent halogenated solvents used in degreasing: Tetrachloroethylene, trichloroethylene, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride, and chlorinated fluorocarbons; all spent solvent mixtures/blends used in degreasing containing, before use, a total of ten percent or more (by volume) of one or more of the above halogenated solvents or those solvents listed in F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures. (T)
- F002 The following spent halogenated solvents: Tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, ortho-dichlorobenzene, trichlorofluoromethane and 1,1,2-trichloroethane; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above halogenated solvents or those listed in F001, F004, or F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures. (T)

PERMANENT

- F003 The following spent non-halogenated solvents: Xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, and methanol; all spent solvent mixtures/blends containing, before use, only the above spent non-halogenated solvents; and all spent solvent mixtures/blends containing, before use, one or more of the above non-halogenated solvents, and, a total of ten percent or more (by volume) of one or more of those solvents listed in F001, F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures. (I)
- F004 The following spent non-halogenated solvents: Cresols and cresylic acid, nitrobenzene; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above nonhalogenated solvents or those solvents listed in F001, F002, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures. (T)
- F005 The following spent non-halogenated solvents: Toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, benzene, 2-ethoxyethanol, and 2-nitropropane; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above non-halogenated solvents or those solvents listed in F001, F002, or F004; and still bottoms from the recovery of these spent solvents and spent solvent mixtures. (I,T)
- F006 Wastewater treatment sludges from electroplating operations except from the following processes: (1) Sulfuric acid anodizing of aluminum; (2) tin plating on carbon steel; (3) zinc plating (segregated basis) on carbon steel; (4) aluminum or zinc-aluminum plating on carbon steel; (5) cleaning/stripping associated with tin, zinc, and aluminum plating on carbon steel; and (6) chemical etching and milling of aluminum. (T)
- F007 Spent cyanide plating bath solutions from electroplating operations. (R,T)
- F008 Plating bath residues from the bottom of plating baths from electroplating operations where cyanides are used in the process. (R,T)
- F009 Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process. (R,T)
- F010 Quenching bath residues from oil baths from metal heat treating operations where cyanides are used in the process. (R,T)
- F011 Spent cyanide solutions from salt bath pot cleaning from metal heat treating operations. (R,T)
- F012 Quenching wastewater treatment sludges from metal heat-treating operations where cyanides are used in the process. (T)
- F019 Wastewater treatment sludges from the chemical conversion coating of aluminum except from zirconium phosphating in aluminum can washing when such phosphating is an exclusive conversion coating process. (T)
- F020 Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tri- or tetrachlorophenol, or of intermediates used to produce their pesticide derivatives. (This listing does not include wastes from the production of hexachlorophene from highly purified 2,4,5-trichlorophenol.) (See footnote 1, below.) (H)
- F021 Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of pentachlorophenol, or of intermediates used to produce its derivatives. (See footnote 1, below.) (H)
- F022 Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tetra-, penta-, or hexachlorobenzenes under alkaline conditions. (See footnote 1, below.) (H)
- F023 Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production of materials on equipment previously used for the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tri- and tetrachlorophenols. (See footnote 1, below.) (This listing does not include wastes from equipment used only for the production or use of hexachlorophene from highly purified 2,4,5-trichlorophenol.) (H)
- F024 Process wastes, including but not limited to, distillation residues, heavy ends, tars, and reactor (~~(cleanout)~~) clean-out wastes, from the production of certain chlorinated aliphatic hydrocarbons by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution. (This listing does not include wastewaters, wastewater treatment sludges, spent catalysts, and wastes listed (~~(under specific sources, below)~~) in this section.) (T)
- F025 Condensed light ends, spent filters and filter aids, and spent desiccant wastes from the production of certain chlorinated aliphatic hydrocarbons, by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution. (T)

- F026** Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production of materials on equipment previously used for the manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tetra-, penta-, or hexachlorobenzene under alkaline conditions. (See footnote 1, below.) (H)
- F027** Discarded unused formulations containing tri-, tetra-, or pentachlorophenol or discarded unused formulations containing compounds derived from these chlorophenols. (See footnote 1, below.) (This listing does not include formulations containing hexachlorophene synthesized from prepurified 2,4,5-trichlorophenol as the sole component.) (H)
- F028** Residues resulting from the incineration or thermal treatment of soil contaminated with nonspecific sources wastes F020, F021, F022, F023, F026 and F027. (T)
- F032** Wastewaters (except those that have not come into contact with process contaminants), process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that currently use or have previously used chlorophenolic formulations (except potentially cross-contaminated wastes that have had the F032 waste code deleted in accordance with WAC 173-303-083 or potentially cross-contaminated wastes that are otherwise currently regulated as dangerous wastes (i.e., F034 or F035), and where the generator does not resume or initiate use of chlorophenolic formulations). This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol. (T)
- F034** Wastewaters (except those that have not come into contact with process contaminants), process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that use creosote formulations. This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol. (T)
- F035** Wastewaters (except those that have not come into contact with process contaminants), process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that use inorganic preservatives containing arsenic or chromium. This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol. (T)
- F037** Petroleum refinery primary oil/water/solids separation sludge-Any sludge generated from the gravitational separation of oil/water/solids during the storage or treatment of process wastewaters and oily cooling wastewaters from petroleum refineries. Such sludges include, but are not limited to, those generated in: Oil/water/solids separators; tanks and impoundments; ditches and other conveyances; sumps; and stormwater units receiving dry weather flow. Sludge generated in stormwater units that do not receive dry weather flow, sludges generated from noncontact once-through cooling waters segregated for treatment from other process or oily cooling waters, sludges generated in aggressive biological treatment units as defined in footnote 2, below (including sludges generated in one or more additional units after wastewaters have been treated in aggressive biological treatment units) and K051 wastes are not included in this listing. (See footnote 2, below.) (T)
- F038** Petroleum refinery secondary (emulsified) oil/water/solids separation sludge-Any sludge and/or float generated from the physical and/or chemical separation of oil/water/solids in process wastewaters and oily cooling wastewaters from petroleum refineries. Such wastes include, but are not limited to, all sludges and floats generated in: Induced air flotation (IAF) units, tanks and impoundments, and all sludges generated in DAF units. Sludges generated in stormwater units that do not receive dry weather flow, sludges generated from noncontact once-through cooling waters segregated for treatment from other process or oily cooling waters, sludges and floats generated in aggressive biological treatment units as defined in footnote 2, below (including sludges and floats generated in one or more additional units after wastewaters have been treated in aggressive biological treatment units) and F037, K048, and K051 wastes are not included in this listing. (See footnote 2, below.) (T)
- F039** Leachate (liquids that have percolated through land disposed wastes) resulting from the disposal of more than one restricted waste classified as dangerous under WAC 173-303-9903, 173-303-9904, and 173-303-9905. (Leachate resulting from the disposal of one or more of the following dangerous wastes, and no other dangerous wastes, retains its Dangerous Waste Number(s): F020, F021, F022, F026, F027, and/or F028.) (T)

Specific Sources

Wood Preservation:

- K001** Bottom sediment sludge from the treatment of wastewaters from wood preserving processes that use creosote and/or pentachlorophenol. (T)

Inorganic Pigments:

- K002** Wastewater treatment sludge from the production of chrome yellow and orange pigments. (T)
- K003** Wastewater treatment sludge from the production of molybdate orange pigments. (T)
- K004** Wastewater treatment sludge from the production of zinc yellow pigments. (T)
- K005** Wastewater treatment sludge from the production of chrome green pigments. (T)

- K006 Wastewater treatment sludge from the production of chrome oxide green pigments (anhydrous and hydrated). (T)
- K007 Wastewater treatment sludge from the production of iron blue pigments. (T)
- K008 Oven residue from the production of chrome oxide green pigments. (T)
- Organic Chemicals:**
- K009 Distillation bottoms from the production of acetaldehyde from ethylene. (T)
- K010 Distillation side cuts from the production of acetaldehyde from ethylene. (T)
- K011 Bottom stream from the wastewater stripper in the production of acrylonitrile. (R,T)
- K013 Bottom stream from the acetonitrile column in the production of acrylonitrile. (R,T)
- K014 Bottoms from the acetonitrile purification column in the production of acrylonitrile. (T)
- K015 Still bottoms from the distillation of benzyl chloride. (T)
- K016 Heavy ends or distillation residues from the production of carbon tetrachloride. (T)
- K017 Heavy ends (still bottoms) from the purification column in the production of epichlorohydrin. (T)
- K018 Heavy ends from the fractionation column in ethyl chloride production. (T)
- K019 Heavy ends from the distillation of ethylene dichloride in ethylene dichloride production. (T)
- K020 Heavy ends from the distillation of vinyl chloride in vinyl chloride monomer production. (T)
- K021 Aqueous spent antimony catalyst waste from fluoromethanes production. (T)
- K022 Distillation bottom tars from the production of phenol/acetone from cumene. (T)
- K023 Distillation light ends from the production of phthalic anhydride from naphthalene. (T)
- K024 Distillation bottoms from the production of phthalic anhydride from naphthalene. (T)
- K093 Distillation light ends from the production of phthalic anhydride from ortho-xylene. (T)
- K094 Distillation bottoms from the production of phthalic anhydride from ortho-xylene. (T)
- K025 Distillation bottoms from the production of nitrobenzene by the nitration of benzene. (T)
- K026 Stripping still tails from the production of methyl ethyl pyridines. (T)
- K027 Centrifuge and distillation residues from toluene diisocyanate production. (R,T)
- K028 Spent catalyst from the hydrochlorinator reactor in the production of 1,1,1-trichloroethane. (T)
- K029 Waste from the product steam stripper in the production of 1,1,1-trichloroethane. (T)
- K095 Distillation bottoms from the production of 1,1,1-trichloroethane. (T)
- K096 Heavy ends from the heavy ends column from the production of 1,1,1-trichloroethane. (T)
- K030 Column bottoms or heavy ends from the combined production of trichloroethylene and perchloroethylene. (T)
- K083 Distillation bottoms from aniline production. (T)
- K103 Process residues from aniline extraction from the production of aniline. (T)
- K104 Combined wastewater streams generated from nitrobenzene/aniline production. (T)
- K085 Distillation of fractionation column bottoms from the production of chlorobenzenes. (T)
- K105 Separated aqueous stream from the reactor product washing step in the production of chlorobenzenes. (T)
- K107 Column bottoms from product separation from the production of 1,1-dimethyl-hydrazine (UDMH) from carboxylic acid hydrazines. (C,T)
- K108 Condensed column overheads from product separation and condensed reactor vent gases from the production of 1,1-dimethylhydrazine (UDMH) from the carboxylic acid hydrazides. (I,T)
- K109 Spent filter cartridges from product purification from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides. (T)
- K110 Condensed column overheads from intermediate separation from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides. (T)
- K111 Product washwaters from the production of dinitrotoluene via nitration of toluene. (C,T)
- K112 Reaction by-product water from the drying column in the production of toluenediamine via hydrogenation of dinitrotoluene. (T)
- K113 Condensed liquid light ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene. (T)
- K114 Vicinals from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene. (T)
- K115 Heavy ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene. (T)
- K116 Organic condensate from the solvent recovery column in the production of toluene diisocyanate via phosgenation of toluenediamine. (T)
- K117 Wastewater from the reactor vent gas scrubber in the production of ethylene dibromide via bromination of ethene. (T)

- K118 Spent adsorbent solids from purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene. (T)
- K136 Still bottoms from the purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene. (T)
- K149 Distillation bottoms from the production of alpha- (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups. (This waste does not include still bottoms from the distillation of benzyl chloride.) (T)
- K150 Organic residuals, excluding spent carbon adsorbent, from the spent chlorine gas and hydrochloric acid recovery processes associated with the production of alpha- (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups. (T)
- K151 Wastewater treatment sludges, excluding neutralization and biological sludges, generated during the treatment of wastewaters from the production of alpha- (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups. (T)
- K156 Organic waste (including heavy ends, still bottoms, light ends, spent solvents, filtrates, and decantates) from the production of carbamates and carbamoyl oximes. (This listing does not apply to wastes generated from the manufacture of 3-iodo-2-propynyl n-butylcarbamate.) (T)
- K157 Wastewaters (including scrubber waters, condenser waters, washwaters, and separation waters) from the production of carbamates and carbamoyl oximes. (This listing does not apply to wastes generated from the manufacture of 3-iodo-2-propynyl n-butylcarbamate.) (T)
- K158 Bag house dusts and filter/separation solids from the production of carbamates and carbamoyl oximes. (This listing does not apply to wastes generated from the manufacture of 3-iodo-2-propynyl n-butylcarbamate.) (T)
- K159 Organics from the treatment of thiocarbamate wastes. (T)
- K161 Purification solids (including filtration, evaporation, and centrifugation solids), bag house dust and floor sweepings from the production of dithiocarbamate acids and their salts. (R,T)

Explosives:

- K044 Wastewater treatment sludges from the manufacturing and processing of explosives. (R)
- K045 Spent carbon from the treatment of wastewater containing explosives. (R)

K046 Wastewater treatment sludges from the manufacturing, formulation and loading of lead-based initiating compounds. (T)

K047 Pink/red water from TNT operations. (R)

Inorganic Chemicals:

- K071 Brine purification muds from the mercury cell process in chlorine production, where separately prepurified brine is not used. (T)
- K073 Chlorinated hydrocarbon waste from the purification step of the diaphragm cell process using graphite anodes in chlorine production. (T)
- K106 Wastewater treatment sludge from the mercury cell process in chlorine production. (T)

Petroleum Refining:

- K048 Dissolved air flotation (DAF) float from the petroleum refining industry. (T)
- K049 Slop oil emulsion solids from the petroleum refining industry. (T)
- K050 Heat exchanger bundle cleaning sludge from the petroleum refining industry. (T)
- K051 API separator sludge from the petroleum refining industry. (T)
- K052 Tank bottoms (leaded) from the petroleum refining industry. (T)

Iron and Steel:

- K061 Emission control dust/sludge from the primary production of steel in electric furnaces. (T)
- K062 Spent pickle liquor generated by steel finishing operations of facilities within the iron and steel industry (SIC Codes 331 and 332). (C,T)

Pesticides:

- K031 Byproduct salts generated in the production of MSMA and cacodylic acid. (T)
- K032 Wastewater treatment sludge from the production of chlordane. (T)
- K033 Wastewater and scrub water from the chlorination of cyclopentadiene in the production of chlordane. (T)
- K034 Filter solids from the filtration of hexachlorocyclopentadiene in the production of chlordane. (T)
- K097 Vacuum stripper discharge from the chlordane chlorinator in the production of chlordane. (T)
- K035 Wastewater treatment sludges generated in the production of creosote. (T)
- K036 Still bottoms from toluene reclamation distillation in the production of disulfoton. (T)
- K037 Wastewater treatment sludges from the production of disulfoton. (T)
- K038 Wastewater from the washing and stripping of phorate production. (T)

- K039 Filter cake from the filtration of diethylphosphorodithioic acid in the production of phorate. (T)
- K040 Wastewater treatment sludge from the production of phorate. (T)
- K041 Wastewater treatment sludge from the production of toxaphene. (T)
- K098 Untreated process wastewater from the production of toxaphene. (T)
- K042 Heavy ends or distillation residues from the distillation of tetrachlorobenzene in the production of 2,4,5-T. (T)
- K043 2,6-Dichlorophenol waste from the production of 2,4-D. (T)
- K099 Untreated wastewater from the production of 2,4-D. (T)
- K123 Process wastewater (including supernates, filtrates, and wastewaters) from the production of ethylenebisdithiocarbamic acid and its salts. (T)
- K124 Reactor vent scrubber water from the production of ethylenebisdithiocarbamic acid and its salts. (C,T)
- K125 Filtration, evaporation, and centrifugation solids from the production of ethylenebisdithiocarbamic acid and its salts. (T)
- K126 Baghouse dust and floor sweepings in milling and packaging operations from the production or formulation of ethylenebisdithiocarbamic acid and its salts. (T)
- K131 Wastewater from the reactor and spent sulfuric acid from the acid dryer from the production of methyl bromide. (C,T)
- K132 Spent absorbent and wastewater separator solids from the production of methyl bromide. (T)

Primary Copper:

- K064 Acid plant blowdown slurry/sludge resulting from the thickening of blowdown slurry from primary copper production. (T)

Primary Lead:

- K065 Surface impoundment solids contained in and dredged from surface impoundments at primary lead smelting facilities. (T)

Primary Zinc:

- K066 Sludge from treatment of process wastewater and/or acid plant blowdown from primary zinc production. (T)

Primary Aluminum:

- K088 Spent potliners from primary aluminum reduction. (T)

Ferroalloys:

- K090 Emission control dust or sludge from ferrochromium-silicon production. (T)

- K091 Emission control dust or sludge from ferrochromium production. (T)

Secondary Lead:

- K069 Emission control dust/sludge from secondary lead smelting. (T)
- K100 Waste leaching solution from acid leaching of emission control dust/sludge from secondary lead smelting. (T)

Veterinary Pharmaceuticals:

- K084 Wastewater treatment sludges generated during the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds. (T)
- K101 Distillation tar residues from the distillation of aniline-based compounds in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds. (T)
- K102 Residue from the use of activated carbon for decolorization in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds. (T)

Ink Formulation:

- K086 Solvent washes and sludges, caustic washes and sludges, or water washes and sludges from cleaning tubs and equipment used in the formulation of ink from pigments, driers, soaps, and stabilizers containing chromium and lead. (T)

Coking:

- K060 Ammonia still-lime sludge from coking operations. (T)
- K087 Decanter tank tar sludge from coking operations. (T)

K141 Process residues from the recovery of coal tar, including, but not limited to, collecting sump residues from the production of coke from coal or the recovery of coke by-products produced from coal. This listing does not include K087 (decanter tank tar sludges from coking operations).

K142 Tar storage tank residues from the production of coke from coal or from the recovery of coke by-products produced from coal.

K143 Process residues from the recovery of light oil, including, but not limited to, those generated in stills, decanters, and wash oil recovery units from the recovery of coke by-products produced from coal.

K144 Wastewater sump residues from light oil refining, including, but not limited to, intercepting or contamination sump sludges from the recover of coke by-products produced from coal.

K145 Residues from naphthalene collection and recovery operations from the recovery of coke by-products produced from coal.

K147 Tar storage tank residues from coal tar refining.

K148 Residues from coal tar distillation, including but not limited to, still bottoms.**Footnotes**

- 1 For wastes listed with the dangerous waste numbers F020, F021, F022, F023, F026, or F027 the quantity exclusion limit is 2.2 lbs. (1 kg) per month or per batch.
- 2 Listing Specific Definitions:
 - a For the purposes of the F037 and F038 listings, oil/water/solids is defined as oil and/or water and/or solids.
- b(i) For the purposes of the F037 and F038 listings, aggressive biological treatment units are defined as units which employ one of the following four treatment methods: Activated sludge; trickling filter; rotating biological contactor for the continuous accelerated biological oxidation of wastewaters; or high-rate aeration. High-rate aeration is a system of surface impoundments or tanks, in which intense mechanical aeration is used to completely mix the wastes, enhance biological activity, and ((‡)) (A) the units employs a minimum of 6 hp per million gallons of treatment volume; and either ((‡)) (B) the hydraulic retention time of the unit is no longer than 5 days; or ((‡‡)) (C) the hydraulic retention time is no longer than 30 days and the unit does not generate a sludge that is a dangerous waste by the Toxicity Characteristic.
- (ii) Generators and treatment, storage and disposal facilities have the burden of proving that their sludges are exempt from listing as F037 and F038 wastes under this definition. Generators and treatment, storage and disposal facilities must maintain, in their operating or other on-site records, documents and data sufficient to prove that: ((‡)) (A) The unit is an aggressive biological treatment unit as defined in this subsection; and ((‡)) (B) the sludges sought to be exempted from the definitions of F037 and/or F038 were actually treated in the aggressive biological treatment unit.
- c(i) For the purposes of the F037 listing, sludges are considered to be generated at the moment of deposition in the unit, where deposition is defined as at least a temporary cessation of lateral particle movement.
- (ii) For the purposes of the F038 listing,
 - ((‡)) (A) Sludges are considered to be generated at the moment of deposition in the unit, where deposition is defined as at least a temporary cessation of lateral particle movement and
 - ((‡)) (B) Floats are considered to be generated at the moment they are formed in the top of the unit.

State Sources

- W001 Discarded transformers, capacitors or bushings containing polychlorinated biphenyls (PCB) at concentrations of 2 parts per million or greater (except when drained of all free flowing liquid) and the following wastes generated from the salvaging, rebuilding, or discarding of transformers, capacitors or bushings containing polychlorinated biphenyls (PCB) at concentrations of 2 parts per million or

greater: Cooling and insulating fluids and cores, including core papers. (Note—Certain PCB wastes are excluded from this listing under WAC 173-303-071 (3)(k). The generator should check that section to determine if their PCB waste is excluded from the requirements of chapter 173-303 WAC.)

AMENDATORY SECTION (Amending Order 94-30, filed 10/19/95, effective 11/19/95)**WAC 173-303-9905 Dangerous waste constituents list.**

- A2213 (Ethanimidothioic acid, 2- (dimethylamino) -N-hydroxy-2-oxo-, methyl ester)
 Acetic Acid, 2,4,5-trichlorophenoxy-, salts and esters (2,4,5-T, salts and esters)
 Acetonitrile [Ethanenitrile]
 Acetophenone (Ethanone, 1-phenyl)
 -(alpha-Acetylbenzyl)-4-hydroxycoumarin and salts (Warfarin)
 2-Acetylaminofluorene (Acetamide, N-9H- fluoren-2-yl-)
 Acetyl chloride (Ethanoyl chloride)
 1-Acetyl-2-thiourea (Acetamide, N-(aminothioxomethyl)-)
 Acrolein (2-Propenal)
 Acrylamide (2-Propenamide)
 Acrylonitrile (2-Propenenitrile)
 Aflatoxins
Aldicarb sulfone (Propanal, 2-methyl-2-(methylsulfonyl) -, O-[(methylamino) carbonyl] oxime)
 Aldrin (1,2,3,4,10,10-Hexachloro- 1,4,4a,5,8,8a, hexahydro-endo,exo- 1,4:5,8-Dimethanonaphthalene)
 Allyl alcohol (2-Propen-1-ol)
 Allyl chloride (1-Propane, 3-chloro)
 Aluminum phosphide
 4-Aminobiphenyl ([1,1'-Biphenyl]-4-amine)
 6-Amino-1,1a,2,8,8a,8b-hexahydro-8-(hydroxymethyl)-8a-methoxy-5-methyl- carbamate azirino[2',3':3,4]pyrrolo[1,2-a]indole-4,7-dione, (ester) (Mitomycin C) (Azirino[2'3':3,4]pyrrolo(1,2-a)indole-4,7-dione, 6-amino-8[
 4-Aminopyridine(4-Pyridinamine)
Amitrole (1H-1,2,4-Triazol-3-amine)
Aniline (Benzenamine)
Antimony and compounds, N.O.S.*
Aramite (Sulfurous acid 2-chloroethyl 2-[4-(1,1-dimethylethyl)phenoxy]-1-methylethyl ester)
 Arsenic and compounds, N.O.S.*
Barban (Carbamic acid, (3-chlorophenyl) -, 4-chloro-2-butynyl ester)
 Barium and compounds, N.O.S.*
 Barium cyanide
Bendiocarb (1,3-Benzodioxol-4-ol, 2,2-dimethyl-, methyl carbamate)
Bendiocarb phenol (1,3-Benzodioxol-4-ol, 2,2-dimethyl-,)
Benomyl (Carbamic acid, [1- [(butylamino) carbonyl]-1H-benzimidazol-2-yl] -, methyl ester)

- Benz[c]acridine (3,4-Benzacridine)
 Benz[a]anthracene (1,2-Benzanthracene)
 Benzene (Cyclohexatriene)
 Benzenearsonic acid (Arsonic acid, phenyl-)
 Benzene, 2-amino-1-methyl (o-Toluidine)
 Benzene, 4-amino-1-methyl (p-Toluidine)
 Benzene, dichloromethyl- (Benzal chloride)
 Benzenethiol (Thiophenol)
 Benzidine ([1,1'-Biphenyl]-4,4' diamine)
 Benzo[b]fluoranthene (2,3-Benzofluoranthene)
 Benzo[k]fluoranthene
 Benzo[j]fluoranthene (7,8-Benzofluoranthene)
 Benzo[a]pyrene (3,4-Benzopyrene)
 p Benzoquinone (1,4-Cyclohexadienedione)
 Benzotrichloride (Benzene, trichloromethyl-)
 Benzyl chloride (Benzene, (chloromethyl)-)
Beryllium powder
 Beryllium (~~and~~) compounds, N.O.S.*
 Bis(2-chloroethoxy)methane (Ethane, 1,1'-
 [methylenebis(oxy)]bis[2-chloro-])
 Bis(2-chloroethyl) ether (Ethane, 1,1'-oxybis[2-
 chloro-])
 N,N-Bis(2-chloroethyl)-2-naphthylamine
 (Chlornaphazine)
 Bis(2-chloroisopropyl) ether (Propane, 2,2'-oxybis[2-
 chloro-])
 Bis(chloromethyl) ether (Methane, oxybis[chloro-])
 Bis(2-ethylhexyl) phthalate (1,2-Benzenedicarboxylic
 acid, bis(2-ethylhexyl) ester)
Bis(pentamethylene)-thiuram tetrasulfide (Piperidine,
 1,1'- (tetrathiodicarbonothioyl)-bis-)
 Bromoacetone (2-Propanone, 1-bromo-)
 Bromomethane (Methyl bromide)
 4-Bromophenyl phenyl ether (Benzene, 1-bromo-4-
 phenoxy-)
 Brucine (Strychnidin-10-one, 2,3-dimethoxy-)
 2-Butanone peroxide (Methyl ethyl ketone, peroxide)
 Butyl benzyl phthalate (1,2-Benzenedicarboxylic acid,
 butyl phenylmethyl ester)
 2-sec-Butyl-4,6-dinitrophenol (DNBP) (Phenol, 2,4-
 dinitro-6-(1-methylpropyl)-)
Butylate (Carbamothioic acid, bis(2 methylpropyl)-, S-
 ethyl ester)
 Cadmium and compounds, N.O.S.*
 Calcium chromate (Chromic acid, calcium salt)
 Calcium cyanide
 Carbamic Acid, ethyl ester
 Carbaryl (1-Naphthalenol methylcarbamate)
 Carbendazim (Carbamic acid, 1H-benzimidazol-2-yl,
 methyl ester)
Carbofuran (7-Benzofuranol,
 2,3-dihydro-2,2-dimethyl-, methylcarbamate)
Carbofuran phenol (7-Benzofuranol,
 2,3-dihydro-2,2-dimethyl-)
 Carbon disulfide (Carbon bisulfide)
 Carbon oxyfluoride (Carbonyl fluoride)
Carbosulfan (Carbamic acid, [(dibutylamino) thio]
 methyl-, 2,3-dihydro-2,2-dimethyl-7-benzofuranyl
 ester)
 Chloral (Acetaldehyde, trichloro-)
 Chlorambucil (Butanoic acid, 4-[bis(2-
 chloroethyl)amino]benzene-)
 Chlordane (alpha and gamma isomers) (4,7-
 Methanoindan, 1,2,4,5,6,7,8,8-octachloro-3,4,7,7a-
 tetrahydro-) (alpha and gamma isomers)
 Chlorinated benzenes, N.O.S.*
 Chlorinated ethane, N.O.S.*
 Chlorinated fluorocarbons, N.O.S.*
 Chlorinated naphthalene, N.O.S.*
 Chlorinated phenol, N.O.S.*
 Chloroacetaldehyde (Acetaldehyde, chloro-)
 Chloroalkyl ethers, N.O.S.*
 P-Chloroaniline (Benzenamine, 4-chloro-)
 Chlorobenzene (Benzene, chloro-)
 Chlorobenzilate (Benzenoacetic acid, 4-chloro-alpha-
 (4-chlorophenyl)-alpha-hydroxy-,ethyl ester)
 2-Chloro-1,3-butadiene
 p-Chloro-m-cresol (Phenol, 4-Chloro-3-methyl)
 1-Chloro-2,3-epoxypropane (Oxirane, 2-
 (chloromethyl)-)
 2-Chloroethyl vinyl ether (Ethene, (2-chloroethoxy)-)
 Chloroform (Methane, trichloro-)
 Chloromethane (Methyl chloride)
 Chloromethyl methyl ether (Methane,
 chloromethoxy-)
 2-Chloronaphthalene (Naphthalene, beta-chloro-)
 2-Chlorophenol (Phenol, o-chloro-)
 1-(o-Chlorophenyl)thiourea (Thiourea, (2-
 chlorophenyl)-)
 3-Chloropropene
 3-Chloropropionitrile (Propanenitrile, 3-chloro-)
 Chromium and compounds, N.O.S.*
 Chrysene (1,2-Benzphenanthrene)
 Citrus red No. 2 (2-Naphthol, 1-[(2,5-
 dimethoxyphenyl)azo]-)
 Coal tar(~~s~~) creosote
 Copper cyanide
Copper dimethyldithiocarbamate (Copper,
 bis(dimethylcarbamodithioato-S,S')-,)
 Creosote (~~((Creosote, wood))~~)
 Cresols (Cresylic acid) (Phenol, methyl-)
 Crotonaldehyde (2-Butenal)
m-Cumenyl methylcarbamate (Phenol,
 3-(methylethyl)-, methyl carbamate)
 Cyanides (soluble salts and complexes), N.O.S.*
 Cyanogen (Ethanedinitrile)
 Cyanogen bromide (Bromine cyanide)
 Cyanogen chloride (Chlorine cyanide)
 Cycasin (beta-D-Glucopyranoside, (methyl-ONN-
 azoxy)methyl-)
Cycloate (Carbamothioic acid, cyclohexylethyl-, S-
 ethyl ester)
 2-Cyclohexyl-4,6-dinitrophenol (Phenol, 2-cyclohexyl-
 4,6-
 dinitro-)
 Cyclophosphamide (2H-1,3,2,-Oxazaphosphorine,
 [bis(2-chloroethyl)amino]-tetrahydro-, 2-oxide)
 Daunomycin (5,12-Naphthacenedione, (8S-cis)-8-
 acetyl-10-[(3-amino-2,3,6-trideoxy)-alpha-L-lyxo-
 hexopyranosyl]oxy]-7,8,9,10-tetrahydro-6,8,11-
 trihydroxy-1-methoxy-)
Dazomet (2H-1,3,5-thiadiazine-2-thione, tetrahydro-
 3,5-dimethyl-)

- DDD (Dichlorodiphenyldichloroethane) (Ethane, 1,1-dichloro-2,2-bis(p chlorophenyl)-)
- DDE (Ethylene, 1,1-dichloro-2,2-bis(4-chlorophenyl)-)
- DDT (Dichlorodiphenyltrichloroethane) (Ethane, 1,1,1-trichloro-2,2-bis(p-chlorophenyl)-)
- Diallate (S-(2,3-dichloroallyl) diisopropylthiocarbamate)
- Dibenz[a,h]acridine (1,2,5,6-Dibenzacridine)
- Dibenz[a,j]acridine (1,2,7,8-Dibenzacridine)
- Dibenz[a,h]anthracene (1,2,5,6-Dibenzanthracene)
- 7H-Dibenzo[c,g]carbazole (3,4,5,6-Dibenzcarbazole)
- Dibenzo[a,e]pyrene (1,2,4,5-Dibenzpyrene)
- Dibenzo[a,h]pyrene (1,2,5,6-Dibenzpyrene)
- Dibenzo[a,i]pyrene (1,2,7,8-Dibenzpyrene)
- 1,2-Dibromo-3-chloropropane (Propane, 1,2-dibromo-3-chloro-)
- 1,2-Dibromoethane (Ethylene dibromide)
- Dibromomethane (Methylene bromide)
- Di-n-butyl phthalate (1,2-Benzenedicarboxylic acid, dibutyl ester)
- o-Dichlorobenzene (Benzene, 1,2-dichloro-)
- m-Dichlorobenzene (Benzene, 1,3-dichloro-)
- p-Dichlorobenzene (Benzene, 1,4-dichloro-)
- Dichlorobenzene, N.O.S.* (Benzene, dichloro-, N.O.S.*)
- 3,3'-Dichlorobenzidine ([1,1'-Biphenyl]-4,4'-diamine, 3,3'-dichloro-)
- 1,4-Dichloro-2-butene (2-Butene, 1,4-Butene, 1,4-dichloro-)
- Dichlorodifluoromethane (Methane, dichlorodifluoro-)
- 1,1-Dichloroethane (Ethylidene dichloride)
- 1,2-Dichloroethane (Ethylene dichloride)
- trans-1,2-Dichloroethene (1,2-Dichloroethylene)
- Dichloroethylene, N.O.S.* (Ethene, dichloro-, N.O.S.*)
- 1,1-Dichloroethylene (Ethene, 1,1-dichloro-)
- Dichloromethane (Methylene chloride)
- 2,4-Dichlorophenol (Phenol, 2,4-dichloro-)
- 2,6-Dichlorophenol (Phenol, 2,6-dichloro-)
- 2,4-Dichlorophenoxyacetic acid (2,4-D), salts and esters (Acetic acid, 2,4-dichlorophenoxy-, salts and esters)
- Dichlorophenylarsine (Phenyl dichloroarsine)
- Dichloropropane, N.O.S.* (Propane, dichloro-, N.O.S.*)
- 1,2-Dichloropropane (Propylene dichloride)
- Dichloropropanol, N.O.S.* (Propanol, dichloro-, N.O.S.*)
- Dichloropropene, N.O.S.* (Propene, dichloro-, N.O.S.*)
- 1,3-Dichloropropene, (1-Propene, 1,3-dichloro-)
- Dieldrin (1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octa-hydro-endo, exo-1,4:5,8-Dimethanonaphthalene)
- 1,2:3,4-Diepoxybutane (2,2'-Bioxirane)
- Diethylarsine (Arsine, diethyl-)
- N,N'-Diethylhydrazine (Hydrazine, 1,2-diethyl)
- O,O-Diethyl S-methyl ester of phosphorodithioic acid (Phosphorodithioic acid, O,O-diethyl S-methyl ester)
- O,O-Diethylphosphoric acid, O-p-nitrophenyl ester (Phosphoric acid, diethyl p-nitrophenyl ester)
- Diethyl phthalate (1,2-Benzenedicarboxylic acid, diethyl ester)
- O,O-Diethyl O-2-pyrazinyl phosphorothioate (Phosphorothioic acid, O,O-diethyl O-pyrazinyl ester)
- Diethylene glycol, dicarbamate (Ethanol, 2,2'-oxybis-, dicarbamate)
- Diethylstilbesterol (4,4'-Stilbenediol, alpha,alpha-diethyl, bis(dihydrogen phosphate, (E)-)
- Dihydrosafrole (Benzene, 1,2-methylenedioxy-4-propyl-)
- 3,4-Dihydroxy-alpha-(methylamino)methyl benzyl alcohol (1,2-Benzenediol, 4-[1-hydroxy-2-(methylamino)ethyl]-)
- Diisopropylfluorophosphate (DFP) (Phosphorofluoric acid, bis(1-methylethyl) ester)
- Dimethoate (Phosphorodithioic acid, O,O-dimethyl S-[2-(methylamino)-2-oxoethyl] ester)
- 3,3'-Dimethoxybenzidine ([1,1'-Biphenyl]-4,4'-diamine, 3-3'dimethoxy-)
- p-Dimethylaminoazobenzene (Benzenamine, N,N-dimethyl-4-(phenylazo)-)
- 7,12-Dimethylbenz[a]anthracene (1,2-Benzanthracene, 7,12-dimethyl-)
- 3,3'-Dimethylbenzidine ([1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethyl-)
- Dimethylcarbonyl chloride (Carbamoyl chloride, dimethyl-)
- 1,1-Dimethylhydrazine (Hydrazine, 1,1-dimethyl-)
- 1,2-Dimethylhydrazine (Hydrazine, 1,2-dimethyl-)
- 3,3-Dimethyl-1-(methylthio)-2-butanone, O-[(methylamino) carbonyl]oxime (Thiofanox)
- alpha,alpha-Dimethylphenethylamine (Ethanamine, 1,1-dimethyl-2-phenyl)
- 2,4-Dimethylphenol (Phenol, 2,4-dimethyl-)
- Dimethyl phthalate (1,2-Benzenedicarboxylic acid, dimethyl ester)
- Dimethyl sulfate (Sulfuric acid, dimethyl ester)
- Dimetilan (Carbamic acid, dimethyl-, 1-[(dimethylamino) carbon-yl]-5-methyl-1H-pyrazol-3-yl ester)
- Dinitrobenzene, N.O.S.* (Benzene, dinitro-, N.O.S.*)
- 4,6-Dinitro-o-cresol and salts (Phenol, 2,4-dinitro-6-methyl-, and salts)
- 2,4-Dinitrophenol (Phenol, 2,4-dinitro-)
- 2,4-Dinitrotoluene (Benzene, 1-methyl-2,4-dinitro-)
- 2,6-Dinitrotoluene (Benzene, 1-methyl-2,6-dinitro-)
- Dinoseb (Phenol, 2-(1-methylpropyl)-4,6-dinitro-)
- Di-n-octyl phthalate (1,2-Benzenedicarboxylic acid, dioctyl ester)
- 1,4-Dioxane (1,4-Diethylene oxide)
- Diphenylamine (Benzenamine, N-Phenyl-)
- 1,2-Diphenylhydrazine (Hydrazine, 1,2-diphenyl-)
- Di-n-propylmitrosamine (N-Nitroso-di-n-propylamine)
- Disulfiram (Thioperoxydicarbonic diamide, tetraethyl)
- Disulfoton (O,O-diethyl S-[2-(ethylthio)ethyl] phosphorodithioate)
- ((2,4-))Dithiobiuret (Thioimidodicarbonic ((diamide)) diamide [(H₂N)C(S)₂NH])
- EPTC (Carbamothioic acid, dipropyl-, S-ethyl ester)

- Endosulfan (5-Norbornene, 2,3-dimethanol, 1,4,5,6,7,7-hexachloro-, cyclic sulfite)
- Endrin and metabolites (1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-endo,endo-1,4:5,8-dimethanonaphthalene, and metabolites)
- Ethyl carbamate (Urethan) (Carbamic acid, ethyl ester)
- Ethyl cyanide (propanenitrile)
- Ethyl ziram (Zinc, bis(diethylcarbamodithioato- S,S')-)
- Ethylenebisdithiocarbamic acid, salts and esters (1,2-Ethanediybiscarbamodithioic acid, salts and esters.)
- Ethylene glycol monoethyl ether (2-Ethoxyethanol)
- Ethyleneimine (Aziridine)
- Ethylene oxide (Oxirane)
- Ethylenethiourea (2-Imidazolidinethione)
- Ethylmethacrylate (2-Propenoic acid, 2-methyl-, ethyl ester)
- Ethyl methanesulfonate (Methanesulfonic acid, ethyl ester)
- Ferbam (Iron, tris(dimethylcarbamodithioato- S,S')-)
- Fluoranthene (Benzol[j,k]fluorene)
- Fluorine
- 2-Fluoroacetamide (Acetamide, 2-fluoro-)
- Fluoroacetic acid, sodium salt (Acetic acid, fluoro-, sodium salt)
- Formaldehyde (Methylene, oxide)
- Formetanate hydrochloride (Methanimidamide, N,N-dimethyl-N'-[3-[(methylamino) carbon-yl]oxy]phenyl]-, monohydrochloride)
- Formic acid (Methanoic acid)
- Formparanate (Methanimidamide, N,N-dimethyl-N'-[2-methyl-4-[(methylamino) carbonyl]oxy]phenyl]-)
- Glycidylaldehyde (1-Propanol-2,3-epoxy)
- Halomethane, N.O.S.*
- Heptachlor (4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro-)
- Heptachlor epoxide (alpha, beta, and gamma isomers) (4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro-2,3-epoxy-3a,4,7,7-tetrahydro-, alpha, beta and gamma isomers)
- Heptachlorodibenzofurans
- Heptachlorodibenzo-p-dioxins
- Hexachlorobenzene (Benzene, hexachloro-)
- Hexachlorobutadiene (1,3-Butadiene, hexachloro-)
- Hexachlorocyclohexane (all isomers) (Lindane and isomers)
- Hexachlorocyclopentadiene (1,3-Cyclopentadiene, 1,2,3,4,5,5-hexachloro-)
- Hexachlorodibenzo-p-dioxins
- Hexachlorodibenzofurans
- Hexachloroethane (Ethane, hexachloro-)
- 1,2,3,4,10,10-Hexachloro-1,4,4a,5,8,8a-hexahydro-1,4:5,8-endo,endo-dimethanonaphthalene (Hexachlorohexahydro-endo,endo-dimethanonaphthalene)
- Hexachlorophene (2,2'-Methylenebis(3,4,6-trichlorophenol))
- Hexachloropropene (Propene, hexachloro-)
- Hexaethyl tetraphosphate (Tetraphosphoric acid, hexaethyl ester)
- Hydrazine (Diamine)
- Hydrocyanic acid (Hydrogen cyanide)
- Hydrofluoric acid (Hydrogen fluoride)
- Hydrogen sulfide (Sulfur hydride)
- Hydroxydimethylarsine oxide (Cacodylic acid)
- Indeno(1,2,3-cd)pyrene (1,10-(1,2-phenylene)pyrene)
- 3-Iodo-2-propynyl n-butylcarbamate (Carbamic acid, butyl-, 3-iodo-2- propynyl ester)
- Iodomethane (Methyl iodine)
- Isocyanic acid, methyl ester (Methyl isocyanate)
- Isobutyl alcohol (1-Propanol, 2-methyl-)
- Isolan (Carbamic acid, dimethyl-, 3-methyl-1-(1-methylethyl)-1H-pyrazol-5-yl ester)
- Isosafrole (Benzene, 1,2-methylenedioxy-4-allyl-)
- Kepone (Decachlorooctahydro-1,3,4-Methano-2H-cyclobuta[cd]pentalene-2-one)
- Lasiocarpine (2-Butanoic acid, 2-methyl-,7-[(2,3-dihydroxy-2-(1-methoxyethyl)-3-methyl-1-oxobutoxy)methyl]-2,3,5,7a-tetrahydro-1H-pyrrolizin-1-yl ester)
- Lead and compounds, N.O.S.*
- Lead acetate (Acetic acid, lead salt)
- Lead phosphate (Phosphoric acid, lead salt)
- Lead subacetate (Lead, bis(acetato-O)tetrahydroxytri-)
- Maleic anhydride (2,5-Furandione)
- Maleic hydrazide (1,2-Dihydro-3,6-pyridazinedione)
- Malononitrile (Propanedinitrile)
- Manganese dimethyldithiocarbamate (Manganese, bis(dimethylcarbamodithioato-S,S')-,)
- Melphalan (Alanine, 3-[p-bis(2-chloroethyl)amino]phenyl-,L-)
- Mercury Fulminate (Fulminic acid, mercury salt)
- Mercury and compounds, N.O.S.*
- Metam sodium (Carbamodithioic acid, methyl-, monosodium salt)
- Methacrylonitrile (2-Propenenitrile, 2-methyl-)
- Methanethiol (Thiomethanol)
- Methapyrilene (Pyridine, 2-[(2-dimethylamino)ethyl]-2-thenylamino-)
- Methiocarb (Phenol, (3,5-dimethyl-4-(methylthio)-, methylcarbamate)
- Metholonyl (Acetimidic acid, N-[(methylcarbamoyl)oxy]thio-,methyl ester)
- Methoxychlor (Ethane, 1,1,1-trichloro-2,2'-bis(p-methoxyphenyl)-)
- 2-Methylaziridine (1,2-Propylenimine)
- 3-Methylcholanthrene (Benz[j]aceanthrylene, 1,2-dihydro-3-methyl-)
- Methyl chlorocarbonate (Carbonochloridic acid, methyl ester)
- 4,4'-Methylenebis(2-chloroaniline) (Benzenamine, 4,4'-methylenebis-(2-chloro-)
- Methyl ethyl ketone (MEK) (2-Butanone)
- Methyl hydrazine (Hydrazine, methyl-)
- 2-Methylactonitrile (Propanenitrile, 2-hydroxy-2-methyl-)
- Methyl methacrylate (2-Propenoic acid, 2-methyl-, methyl ester)
- Methyl methanesulfonate (Methanesulfonic acid, methyl ester)

- 2-Methyl-2-(methylthio)propionaldehyde-o-(methylcarbonyl) oxime
 N-Methyl-N'-nitro-N-nitrosoguanidine (Guanidine, N-nitros-N-methyl-N' nitro-)
 Methyl parathion (O,O-dimethyl O-(4-nitrophenyl) phosphorothioate)
 Methylthiouracil (4-1H-Pyrimidinone, 2,3-dihydro-6-methyl-2-thioxo-)
Metolcarb (Carbamic acid, methyl-, 3-methylphenyl ester)
Mexacarbate (Phenol, 4-(dimethylamino)-3,5-dimethyl-, methylcarbamate (ester))
Molinate (1H-Azepine-1-carbothioic acid, hexahydro-, S-ethyl ester)
 Mustard gas (Sulfide, bis(2-chloroethyl)-)
 Naphthalene
 1,4-Naphthoquinone (1,4-Naphthalenedione)
 1-Naphthylamine (alpha-Naphthylamine)
 2-Naphthylamine (beta-Naphthylamine)
 1-Naphthyl-2-thiourea (Thiourea, 1-naphthalenyl-)
 Nickel and compounds, N.O.S.*
 Nickel carbonyl (Nickel tetracarbonyl)
 Nickel cyanide (nickel (II) cyanide)
 Nicotine and salts, Pyridine, (S)-3-(1-methyl-2-pyrrolidinyl)-, and salts)
 Nitric oxide (Nitrogen (II) oxide)
 p-Nitroaniline (Benzenamine, 4-nitro-)
 Nitrobenzine (Benzene, nitro-) Nitrobenzene
 Nitrogen dioxide (Nitrogen (IV) oxide)
 Nitrogen mustard and hydrochloride salt (Ethanamine, 2-chloro-, N-(2-chloroethyl)-
 N-methyl-, and hydrochloride salt)
 Nitrogen mustard N-Oxide and hydrochloride salt (Ethanamine, 2-chloro-, N-(2-chloroethyl)-N-methyl-, N-oxide, and hydro-chloride salt)
 Nitroglycerine (1,2,3-Propanetriol, trinitrate)
 4-Nitrophenol (Phenol, 4-nitro-)
 2-Nitropropane (Propane 2-nitro)
 4-Nitroquinoline-1-oxide (Quinoline, 4-nitro-1-oxide-)
 Nitrosamine, N.O.S.*
 N-Nitrosodi-n-butylamine (1-Butanamine, N-butyl-N-nitroso-)
 N-Nitrosodiethanolamine (Ethanol, 2,2'-(nitrosoimino)bis-)
 N-Nitrosodiethylamine (Ethanamine, N-Ethyl-N-nitroso-)
 N-Nitrosodimethylamine (Dimethylnitrosamine)
 N-Nitroso-N-ethylurea (Carbamide, N-ethyl-N-nitroso-)
 N-Nitrosomethylethylamine (Ethanamine, N-methyl-N-nitroso-)
 N-Nitroso-N-methylurea (Carbamide, N-methyl-N-nitroso-)
 N-Nitroso-N-methylurethane (Carbamic acid, methylnitroso-, ethyl ester)
 N-Nitrosomethylvinylamine (Ethenamine, N-methyl-N-nitroso-)
 N-Nitrosomorpholine (Morpholine, N-nitroso-)
 N-Nitrosornicotine (Nornicotine, N-nitroso-)
 N-Nitrosopiperidine (Pyridine, hexahydro-, N-nitroso-)
 N-Nitrosopyrrolidine (pyrrole, tetrahydro-, N-nitroso-)
 N-Nitrososarcosine (Sarcosine, N-nitroso-)
 5-Nitro-o-toluidine (Benzenamine, 2-methyl-5-nitro-)
 Octamethylpyrophosphoramidate (Diphosphoramidate, octamethyl-)
 Osmium tetroxide (Osmium (VIII) oxide)
 7-Ocabcyclo[2.2.1]heptane-2,3-dicarboxylic acid (Endothal)
Oxamyl (Ethanimidothioic acid, 2-(dimethylamino)-N-[(methylamino) carbonyl]oxy]-2-oxo-, methyl ester)
 Paraldehyde (1,3,5-Trioxane, 2,4,6-trinethyl-)
 Parathion (Phosphorothioic acid, O,O-diethyl O-(p-nitrophenyl) ester)
Pebulate (Carbamothioic acid, butylethyl-, S- propyl ester)
 Pentachlorobenzene (Benzene, pentachloro-)
 Pentachlorodibenzo-p-dioxins
 Pentachlorodibenzofurans
 Pentachloroethane (Ethane, pentachloro-)
 Pentachloronitrobenzene (PCNB) (Benzene, pentachloronitro-)
 Pentachlorophenol (Phenol, pentachloro-)
 Perchloromethyl mercaptan (Methanesulferyll chloride, trichloro-)
 Phenacetin (Acetamide, N-(4-ethoxyphenyl)-)
 Phenol (Benzene, hydroxy-)
 Phenylenediamine (Benzenediamine)
 Phenylmercury acetate (Mercury, acetatophenyl-)
 N-Phenylthiourea (Thiourea, phenyl-)
 Phosgene (Carbonyl chloride)
 Phosphine (Hydrogen phosphide)
 Phosphorodithioic acid, O,O-diethyl S-[(ethylthio)methyl] ester (Phorate)
 Phosphorothioic acid, O,O-dimethyl O-[p-((dimethylamino)sulfonyl)phenyl] ester (Famphur)
 Phthalic acid esters, N.O.S.* (Benzene, 1,2-dicarboxylic acid, esters, N.O.S.*
 Phthalic anhydride (1,2-Benzenedicarboxylic acid anhydride)
Physostigmine (Pyrrolo[2,3-b]indol-5-01, 1,2,3,3a,8,8a-hexahydro-1,3a,8-trimethyl-, methylcarbamate (ester), (3aS-cis)-)
Physostigmine salicylate (Benzoic acid, 2-hydroxy-, compd. with (3aS-cis) -1,2,3,3a,8,8a-hexahydro-1,3a,8-trimethylpyrrolo[2,3-b]indol-5-yl methylcarbamate ester (1:1).)
 2-Picoline (Pyridine, 2-methyl-)
 Polychlorinated biphenyl, N.O.S.*
 Potassium cyanide
Potassium dimethyldithiocarbamate (Carbamodithioic acid, dimethyl, potassium salt)
Potassium n-hydroxymethyl-n-methyl- dithiocarbamate (Carbamodithioic acid, (hydroxymethyl)methyl-, monopotassium salt)
Potassium n-methyldithiocarbamate (Carbamodithioic acid, methyl- monopotassium salt)
Potassium pentachlorophenate (Pentachlorophenol, potassium salt)
 Potassium silver cyanide (Argentate(1-), dicyano-, potassium)
Promecarb (Phenol, 3-methyl-5-(1-methylethyl)-, methyl carbamate)

- Pronamide (3,5-Dichloro-N-(1,1-dimethyl-2-propynyl)benzamide)
- 1,3-Propanesultone (1,2-Oxathiolane, 2,2-dioxide)
- Propham (Carbamic acid, phenyl-, 1-methylethyl ester)
- Propionic acid, 2-(2,4,5-trichlorophenoxy), salts and esters (2,4,5-TP, Silvex, salts and esters)
- Propoxur (Phenol, 2-(1-methylethoxy)-, methylcarbamate)
- n-Propylamine (1-Propane)
- Propylthiouracil (2,3 dihydro-6-propyl-2 thioxo-4(1H)-pyrimidinone)
- 2-Propyn-1-ol (Propargyl alcohol)
- Prosulfocarb (Carbamothioic acid, dipropyl-, S-(phenylmethyl) ester)
- Pyridine
- Reserpine (Yohimban-16-carboxylic acid, 11,17-dimethoxy-18-[(3,4,5-trimethoxybenzoyl)oxy]-, methyl ester)
- Resorcinol (1,3-Benzenediol)
- Saccharin and salts (1,2-Benzoisothiazolin-3-one, 1,1-dioxide, and salts)
- Safrol (Benzene, 1,2-methylenedioxy-4-allyl-)
- Selenious acid (Selenium dioxide)
- Selenium and compounds, N.O.S.*
- Selenium sulfide (Sulfur selenide)
- Selenium, tetrakis (dimethyl-dithiocarbamate) (Carbamodithioic acid, dimethyl-, tetraanhydrosulfide with orthothioselenious acid)
- Selenourea (Carbamimidoseleonic acid)
- Silver and compounds, N.O.S.*
- Silver cyanide
- Sodium cyanide
- Sodium dibutylthiocarbamate (Carbamodithioic acid, dibutyl, sodium salt)
- Sodium diethylthiocarbamate (Carbamodithioic acid, diethyl-, sodium salt)
- Sodium dimethylthiocarbamate (Carbamodithioic acid, dimethyl-, sodium salt)
- Sodium pentachlorophenate (Pentachlorophenol, sodium salt)
- Streptozotocin (D-Glucopyranose, 2-deoxy-2-(3-methyl-3-nitrosoureido)-)
- Strychnine and salts (Strychnidin-10-one, and salts)
- Sulfallate (Carbamodithioic acid, diethyl-, 2-chloro-2-propenyl ester)
- Tetrabutylthiuram disulfide (Thioperoxydicarbonic diamide, tetrabutyl)
- 1,2,4,5-Tetrachlorobenzene (Benzene, 1,2,4,5-tetrachloro-)
- Tetrachlorodibenzo-p-dioxins
- Tetrachlorodibenzofurans
- 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) (Dibenzo-p-dioxin, 2,3,7,8-tetrachloro-)
- Tetrachloroethane, N.O.S.* (Ethane, tetrachloro-, N.O.S.*)
- 1,1,1,2-Tetrachlorethane (Ethane, 1,1,1,2-tetrachloro-)
- 1,1,2,2-Tetrachlorethane (Ethane, 1,1,2,2-tetrachloro-)
- Tetrachlorethylene (Ethene, 1,1,2,2-tetrachloro-)¹
- Tetrachloromethane (Carbon tetrachloride)
- 2,3,4,6-Tetrachlorophenol (Phenol, 2,3,4,6-tetrachloro-)
- 2,3,4,6-Tetrachlorophenol, potassium salt
- 2,3,4,6-Tetrachlorophenol, sodium salt
- Tetraethylthiopyrophosphate (Dithiopyrophosphoric acid, tetraethyl-ester)
- Tetraethyl lead (Plumbane, tetraethyl-)
- Tetraethylpyrophosphate (Pyrophosphoric acid, tetraethyl ester)
- Tetramethylthiuram monosulfide (Bis(dimethylthiocarbamoyl) sulfide)
- Tetranitromethane (Methane, tetranitro-)
- Thallium and compounds, N.O.S.*
- Thallic oxide (Thallium (III) oxide)
- Thallium (I) acetate (Acetic acid, thallium (I) salt)
- Thallium (I) carbonate (Carbonic acid, dithallium (I) salt)
- Thallium (I) chloride
- Thallium (I) nitrate (Nitric acid, thallium (I) salt)
- Thallium selenite
- Thallium (I) sulfate (Sulfuric acid, thallium (I) salt)
- Thioacetamide (Ethanethioamide)
- Thiodicarb (Ethanimidothioic acid, N,N'-[thiobis [(methylimino) carbonyloxy]] bis-, dimethyl ester.)
- Thiophanate-methyl (Carbamic acid, [1,2-phenylenebis (iminocarbonothioyl)] bis-, dimethyl ester)
- Thiosemicarbazide (Hydrazinecarbothioamide)
- Thiourea (Carbamide thio-)
- Thiuram (Bis(dimethylthiocarbamoyl) disulfide)
- Tirpate (1,3-Dithiolane-2-carboxaldehyde, 2,4-dimethyl-, O-[(methylamino) carbonyl] oxime.)
- Toluene (Benzene, methyl-)
- Toluenediamine, N.O.S. (Toluene, 2,5-diamine-)
- 2,4-Toluenediamine
- 2,6-Toluenediamine
- 3,4-Toluenediamine
- o-Toluidine hydrochloride (Benzenamine, 2-methyl-, hydrochloride)
- Tolylene diisocyanate (Benzene, 2,4- and 2,6-diisocyanato-methyl-)
- Toxaphene (Camphene, octachloro-)
- Triallate (Carbamothioic acid, bis(1-methylethyl)-, S-(2,3,3-trichloro-2-propenyl) ester)
- Tribromomethane (Bromoform)
- 1,2,4-Trichlorobenzene (Benzene, 1,2,4-trichloro-)
- 1,1,1-Trichloroethane (Methyl chloroform)
- 1,1,2-Trichloroethane (Ethane, 1,1,2-trichloro-)
- Trichloroethene (Trichloroethylene)
- Trichloromonofluoromethane (Methane, trichlorofluoro-)
- 2,4,5-Trichlorophenol (Phenol, 2,4,5-trichloro-)
- 2,4,6-Trichlorophenol (Phenol, 2,4,6-trichloro-)
- 2,4,5-Trichlorophenoxyacetic acid (2,4,5-T, salts and esters) (Acetic acid, 2,4,5-trichlorophenoxy-, salts and esters)
- 2,4,5-Trichlorophenoxypropionic acid (Propionic acid, 2-(2,4,5-trichlorophenoxy), salts and esters) (2,4,5-TP, Silvex, salts and esters)
- Trichloropropane, N.O.S.* (Propane, trichloro-, N.O.S.*)
- 1,2,3-Trichloropropane (Propane, 1,2,3-trichloro-)

- O,O,O-Triethyl phosphorothioate (Phosphorothioic acid, O,O,O-triethyl ester)
- Triethylamine (Ethanamine, N,N-diethyl-)
- sym-Trinitrobenzene (Benzene, 1,3,5-trinitro-)
- Tris(1-aziridinyl) phosphine sulfide (Phosphine sulfide, tris(1-aziridinyl-))
- Tris(2,3-dibromopropyl) phosphate (1-Propanol, 2,3-dibromo-, phosphate)
- Trypan blue (2,7-Naphthalenedisulfonic acid, 3,3'-[(3,3'-dimethyl(1,1'-biphenyl)-4,4'-diyl)bis(azo)]bis(5-amino-4-hydroxy-, tetrasodium salt)
- Undecamethylenediamine, N,N'-bis-(2-chloro-benzyl)-,dihydrochloride N,N'-Undecamethyl-enebis(2-chlorobenzylamine, dihydrochloride)
- Uracil mustard (Uracil 5-[bis(2-chlorethyl)amino]-)
- Vanadic acid, ammonium salt (ammonium vanadate)
- Vanadium pentoxide (Vanadium (V) oxide)
- Vernolate (Carbamothioic acid, dipropyl-,S-propyl ester)
- Vinyl chloride (Ethane, chloro-)
- Warfarin (2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenylbutyl)-, when present at concentrations less than 0.3%)
- Warfarin (2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenylbutyl)-, when present at concentrations greater than 0.3%)
- Warfarin salts, when present at concentrations less than 0.3%
- Warfarin salts, when present at concentrations greater than 0.3%
- Zinc cyanide
- Zinc phosphide
- Ziram (Zinc, bis(dimethylcarbamodithioato-S,S')-, (T-4)-)

* The abbreviation N.O.S. signifies those members of the general class "not otherwise specified" by name in this listing.

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.

Reviser's note: The typographical error in the above section occurred in the copy filed by the agency and appears in the Register pursuant to the requirements of RCW 34.08.040.

WSR 98-03-033
PERMANENT RULES
SECRETARY OF STATE
 [Filed January 13, 1998, 3:05 p.m.]

Date of Adoption: January 13, 1998.

Purpose: Amend rules relating to elections, including voter registration, ballots, absentee ballots, mail ballot elections, polling place operation, and counting center procedures.

Citation of Existing Rules Affected by this Order: Amending WAC 434-30-150, 434-230-030, 434-230-160, 434-236-090, 434-236-170, 434-240-190, 434-240-230, 434-253-050, 434-253-110, 434-324-035, 434-324-050, 434-324-060, 434-324-085, 434-324-095, 434-324-105, 434-324-120,

and 434-324-130; and new sections WAC 434-240-235 and 434-240-320.

Statutory Authority for Adoption: RCW 29.04.080, 29.04.210, 29.36.150, 29.79.200.

Adopted under notice filed as WSR 97-14-106 [97-21-046] on October 13, 1997.

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 Request of a Nongovernmental Entity: New 0, amended 0, repealed 0.

Number of Sections Adopted on the Agency's own Initiative: New 2, amended 17, repealed 0.

Number of Sections Adopted in Order to Clarify, Streamline, or Reform Agency Procedures: New 2, amended 17, repealed 0.

Number of Sections Adopted using Negotiated Rule Making: New 2, amended 17, repealed 0; Pilot Rule Making: New 0, amended 0, repealed 0; or Other Alternative Rule Making: New 0, amended 0, repealed 0.

Effective Date of Rule: Thirty-one days after filing.
 January 13, 1998
 Donald F. Whiting
 Assistant Secretary of State

AMENDATORY SECTION (Amending WSR 92-10-038, filed 5/4/92, effective 6/4/92)

WAC 434-30-150 Electronic voting device ballot uniformity. ((All ballot cards for an election in counties using electronic voting devices shall be uniform in size.)) Counties may use varying sizes and colors of ballot cards if such size and color is used consistently throughout a region, area or jurisdiction (e.g., legislative district, commissioner district, school district, etc.). Varying color and size may also be used to designate absentee ballots, official ballots or vote by mail ballots, and in the case of a presidential preference primary, political party ballots.

AMENDATORY SECTION (Amending WSR 97-21-045, filed 10/13/97, effective 11/13/97)

WAC 434-230-030 Placement of ballot measures for local units of government. All county-wide ballot measures shall be listed immediately following state measures or issues. In the absence of state measures or issues, county-wide ballot measures shall appear first on all sample ballots and on all ballots. For other local ballot measures and offices, each county shall establish written procedures to determine the order in which local units of government are to be listed on the ballot. Such order of local governmental units shall be consistent on official, absentee, and sample ballots. The order may be determined by, but is not limited to the following: Size of jurisdictional area, alphabetical order by jurisdictional area, or such order as to provide for efficient use of ballot spacing and voting positions. Such procedures are to provide consistency from election to election within a county.

Except for county-wide ballot measures, local ballot measures and offices, if any, may be positioned in the area dedicated for that jurisdiction; or, local ballot measures may

PERMANENT

AMENDATORY SECTION (Amending WSR 97-21-045, filed 10/13/97, effective 11/13/97)

WAC 434-240-230 Processing of absentee ballots.

(1) Prior to initial processing of absentee ballots, the county auditor shall notify the county chair of each major political party of the time and date on which absentee processing shall begin, and shall request that each major political party appoint official observers to observe the processing and tabulation of absentee 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 absentee ballots.

(2) All absentee ballot return envelopes may be opened and subsequently processed no earlier than the tenth day prior to any primary or election. In counties tabulating absentee ballots by hand, the inner security envelope may not be opened until after 8:00 p.m. on election day. (~~In counties tabulating absentee ballots on an electronic vote tallying system, the ballots may be removed from the inner envelope not earlier than the tenth day prior to a primary or election and the ballots then prepared for processing.~~)

(3) In counties tabulating absentee ballots on an electronic vote tallying system, the canvassing board or its representatives may perform the initial processing of absentee ballots at any time on or after the tenth day prior to the primary or election. Following initial processing, all absentee ballots (~~(, whether removed from the inner security envelope or not,)~~) must be kept (~~(in sealed or locked containers and)~~) in secure storage until they are ready (~~(to be tabulated)~~) for final processing.

(4) Final processing may be performed only after 7:00 a.m. on the day of that primary or election.

(5) Tabulation may not occur until after 8:00 p.m. on the day of the primary or election.

NEW SECTION

WAC 434-240-235 Unsigned affidavit. (1) If the voter neglects to sign the affidavit on the return envelope, the auditor shall notify the voter, either by telephone or by first class mail, of that fact. The auditor may:

(a) Require the voter to appear in person and sign the return envelope not later than the day before the certification of the primary or election; or

(b) Provide the voter with a copy of the return envelope affidavit and require the voter to sign the copy of the affidavit and mail it back to the auditor so that it arrives not later than the day before the certification of the primary or election.

(2) The auditor shall advise the voter about the correct procedures for completing the unsigned affidavit and that, in order for the ballot to be counted, the voter must either:

(a) Sign the copy of the return envelope affidavit, if one is provided by the auditor, and mail it back to the auditor so that it arrives not later than the day before the certification of the primary or election; or

(b) Appear in person at the auditor's office not later than the day before the certification of the primary or election and complete the affidavit on the return envelope.

A record shall be kept of the date on which the voter was contacted or on which the notice was mailed to the

voter, as well as the date on which the voter signed the return envelope or a copy of the return envelope affidavit.

NEW SECTION

WAC 434-240-320 Mail ballot precincts. At any primary or election, general or special, the county auditor may, in any precinct having fewer than two hundred active registered voters at the time of closing of voter registration as provided in chapter 29.07 RCW, conduct the voting in that precinct by mail ballot. For any precinct so designated, the county auditor shall not less than fifteen days prior to the date of the primary or election mail or deliver to each active and inactive registered voter within that precinct a notice that the voting in the precinct will be by mail ballot, an application form for a mail ballot, preaddressed to the county auditor with return postage prepaid. A mail ballot shall be issued to each voter who returns a properly executed application to the county auditor no later than the day of the primary or election. For all subsequent mail ballot elections in that precinct, the application is valid so long as the voter remains active and qualified to vote. For each subsequent mail ballot election in the precinct, the county auditor shall mail a notice, mail ballot application form, preaddressed to the county auditor with return postage prepaid to each active and inactive voter in the precinct without a mail ballot application form on file with the county auditor. Unless otherwise provided for by law or administrative rule, mail ballot precinct ballots shall be processed in the same manner as absentee ballots. For all other purposes, including the rotation of ballots and the reporting of returns, mail ballot precinct ballots shall be treated in the same manner as polling place ballots unless otherwise provided for by law or administrative rule.

AMENDATORY SECTION (Amending WSR 97-21-045, filed 10/13/97, effective 11/13/97)

WAC 434-253-050 Voter unable to sign name— Authority to vote. Whenever a registered voter's name appears in the poll book or precinct list but the voter is unable to sign his/her name, the ~~((voter shall be provided))~~ precinct election officer shall require the person offering to vote to be identified by another registered voter and issued a ~~((questioned))~~ ballot. The ~~((questioned))~~ ballot shall be processed in the same manner as other ~~((questioned))~~ regularly voted ballots. In the event that the person offering to vote cannot be identified by another registered voter, the precinct election officer shall issue the person a special ballot. Such special ballots shall be referred to the county canvassing board. The precinct election officer shall note on the poll book that the voter could not sign their name. The county auditor shall verify after election day that the voter's registration reflects the voter's inability to sign. The county auditor shall request an updated signature for those voters without current signatures on file.

AMENDATORY SECTION (Amending WSR 97-21-045, filed 10/13/97, effective 11/13/97)

WAC 434-253-110 Examination of voting devices. Precinct election officers ~~((charged with periodically examining the voting devices to ensure that they have not been~~

tampered with shall do so)) shall examine the voting devices or booths to ensure that they have not been tampered with at least once every hour while the polls are open.

AMENDATORY SECTION (Amending WSR 97-21-045, filed 10/13/97, effective 11/13/97)

WAC 434-324-035 Maintenance of recent voting record. After each primary or election, ((in counties which maintain voter registration records on electronic data processing systems under the provisions of RCW 29.07.150(2) and provide precinct lists of registered voters at the precinct polling as provided by RCW 29.48.030,)) a date shall be entered in the voter registration record of each individual who cast a proper ballot at that election, either at the polling place or by absentee. In the case of each individual record, the five most recent of such dates shall be

retained in that record: Provided, That if the voter has not voted at least five times since establishing his current registration record, only the available dates shall be recorded. If there are already five such dates being maintained in a given record, the least recent date shall be deleted at the time that any new date is added to that record.

AMENDATORY SECTION (Amending WSR 97-21-045, filed 10/13/97, effective 11/13/97)

WAC 434-324-050 Basic voter registration form. Each original voter registration shall be recorded on a form substantially similar to the sample included below. The form ((- designated Permanent Registration Form 2A,)) shall measure eight inches by eight inches and be printed on paper stock of one hundred pound index or a comparable substitute approved by the office of the secretary of state.

ORIGINAL REGISTER OF VOTER		FIRST NAME	INITIAL	LAST NAME
RESIDENCE ADDRESS		CITY OR TOWN		
RESIDENCE LOCATION (IF ADDRESS ABOVE IS ROUTE OR BOX)		ZIP CODE		
MALE <input type="checkbox"/>	FEMALE <input type="checkbox"/>	DATE OF BIRTH		
U. S. CITIZENSHIP		HOME PHONE		
IDENTIFICATION PRODUCT	YES <input type="checkbox"/>	NO <input type="checkbox"/>	SOCIAL SECURITY NUMBER	
LAST PREVIOUS REGISTRATION	RESIDENCE ADDRESS	CITY OR TOWN		
		ZIP CODE		
		STATE OF WASHINGTON		
		County of _____		
		I, the undersigned, on oath or affirmation, do hereby declare that the facts set forth herein relating to my qualifications as a voter, registered by the registration officer on my previous, any other, I further certify that I am not presently deprived of my civil rights as a result of being convicted of an infamous crime and that I will be at least eighteen years of age at the time of voting.		
		SIGN HERE		
		SIGNATURE OF VOTER		
		PRINT NAME HERE FOR POSITIVE IDENTIFICATION		
		Subscribed and sworn to before me this _____ day of _____, 19____		
		ACCOUNT NUMBER		
		SIGNATURE OF REGISTRATION OFFICER		
TRANSFERS				
In order to use this form to transfer an existing registration, enter the number and new address of the voter under the appropriate heading. At the top of this form, enter the old address on the units for "last previous registration". Enter the voter sign below the oath, and place a check in the box at the right.				
Record Signing of Petitions Here (in Pencil)				
FOR OFFICE USE ONLY	REGISTRATION NUMBER		DATE OF REGISTRATION	
	PRECINCT CODE		DISTRICT/LEVY CODE	
	PRECINCT NAME			
PENALTY PROVISION				
RCW 29.36.110. Any person who violates any of the provisions relating to passing and voting, shall be guilty of a felony and shall be punished by imprisonment for not more than five years or a fine of not more than five thousand dollars, or by both such fine and imprisonment.				
INSTRUCTIONS				
1. Enter the applicant's name, address, and other pertinent information in the appropriate spaces of the top, left-hand side of the form.				
2. Administer the affidavit at the top, right-hand side of the form.				
3. Have the applicant sign beneath the affidavit AND on the 3a5 form immediately to the right. Acknowledge the voter's signature on the main form.				
4. Return the completed form to the County Auditor or Department of Elections.				
LAST NAME (PRINT)		FIRST NAME		INITIAL
REGISTRATION NUMBER	SIGN HERE		SIGNATURE OF VOTER	
COUNTY	DATE		PRECINCT	
STREET AND NUMBER OR RURAL ROUTE		CITY		ZIP CODE
MOVED TO				
RECORD SIGNING OF PETITIONS HERE (IN PENCIL)				

PERMANENT

Use Pen - Please Print Clearly

1	Check one: <input type="checkbox"/> New Registration <input type="checkbox"/> Address Change <input type="checkbox"/> Name Change						
2	Mr. Mrs. Miss Ms. Ms. Vn.	Last Name	First Name	Middle Initial	Jr. Sr. II III	<input type="checkbox"/> Male <input type="checkbox"/> Female	
3	Address Where You Live			City or Town	Zip Code		
4	Address Where You Get Your Mail (If Different Than #3)				Zip Code		
5	Date of Birth (Month/Day/Year)		6	Daytime Telephone Number(s)		7	Social Security Number (Optional)
8	Name and Address on Last Voter Registration			Voter Declaration - Read and Sign in both the Shaded Areas Below			
	Name _____			"I declare that the facts on this voter registration form are true:			
	Street _____			<ul style="list-style-type: none"> • I am a citizen of the United States • I am not presently denied my civil rights as a result of being convicted of a felony • I will have lived in Washington at this address for thirty days immediately before the next election at which I vote • I will be at least eighteen years old when I vote." 			
	City _____						
	State _____ Zip _____						
	SIGN HERE →						

FOLD HERE FIRST

10	Last Name	First Name	Initial
	SIGN HERE →		
	Please Print Name Here ↑		
12	Are you registered under another name?		
	Last	First	Initial
	Former Signature →		
	WARNING		
	If you knowingly provide false information on this voter registration form or knowingly make a false declaration about your qualifications for voter registration you will have committed a class C felony that is punishable by imprisonment for up to five years, or by a fine of up to ten thousand dollars, or both imprisonment and fine. (RCW 29.07.070)		

AMENDATORY SECTION (Amending WSR 97-21-045, filed 10/13/97, effective 11/13/97)

WAC 434-324-060 Transmittal of signature cards to the secretary of state. Each group of initiative and referendum signature cards transmitted to the office of the secretary of state under the provisions of RCW 29.07.120 shall be accompanied by a properly executed certificate ((on a form substantially similar to the sample included below. The form, designated Permanent Registration Form 5A shall measure five inches by eight inches and be printed on paper stock of sixteen pound bond or a comparable substitute approved by the office of the secretary of state)) containing

the following information: County, date, the number of cards, and the signature of the Register of Voters attesting to the authenticity of the cards.

PERMANENT

CC

Registrar of Voters' Certificate of Original Third Cards

State of Washington, County of _____ 19____

SECRETARY OF STATE,
Olympia, Washington.

Herewith I transmit to you _____ registration cards, and I hereby certify that they are the original third cards, signed by the voters whose names appear thereon, respectively, and that these voters are duly registered in the precincts and from the addresses shown thereon, respectively.

Signed _____ Registrar of Voters.

County of _____ Washington

PERMANENT

AMENDATORY SECTION (Amending WSR 97-21-045, filed 10/13/97, effective 11/13/97)

WAC 434-324-085 Notice of new registration or transfer. Whenever an individual registers to vote ((pursuant to RCW 29.07.070, 29.07.080, and 29.07.090)) or transfers his/her registration record pursuant to RCW 29.10.100 or whenever a change in precinct boundaries requires that the existing record of a voter be moved from one precinct to another or be placed in a new precinct, the ((registration officer of the)) county auditor shall notify by ((first class)) nonforwardable, address correction requested mail, the individual or voter of such new registration,

transfer, or change of precinct boundary acknowledging that the request of the individual or voter with respect to his record has been processed. Such notices and acknowledgment shall be provided on a form ((substantially similar to the sample included below. The form, designated Permanent Registration Form 11A shall be printed on paper stock of one hundred pound index or a comparable substitute approved by the office of the secretary of state)) containing the following information: The voter's full name, address, county name, precinct name and/or number, voter ID number, the date the voter registered and a signature line for the voter.

CC

YOUR NEW VOTER REGISTRATION CARD

Your precinct has been changed from _____ to _____

PLEASE SIGN AND DETACH

CERTIFICATE OF REGISTRATION

COUNTY, STATE OF WASHINGTON

THIS IS TO CERTIFY THAT:

_____ is a registered voter in _____ Precinct of County of _____

If the address shown is incorrect, or if you move from the address shown on this card you must register the change with the County Auditor.

NEW CARD IS ISSUED PURSUANT TO:

- 1. New registration
- 2. Transfer
- 3. New address given by you at a recent election
- 4. Precinct correction by this office
- 5. Change of precinct boundaries

AMENDATORY SECTION (Amending WSR 97-21-045, filed 10/13/97, effective 11/13/97)

WAC 434-324-095 Cancellation due to death. Pursuant to RCW 29.10.090, the ~~((registration officer))~~ county auditor shall maintain a supply of, furnish to the public upon request, and include in the supplies sent to each precinct for use by the precinct election officials, forms ~~((substantially similar to the sample included below))~~ for the purpose of permitting registered voters to request that the voter registration record of any person, whom they personally know to be deceased, be cancelled. ~~((The form, designated Permanent Registration Form 13A, shall measure three and one fourth inches by five and one half inches and shall be printed on paper stock of one hundred twenty five pound index or a comparable substitute approved by the office of the secretary of state.~~

(1)

**REQUEST FOR CANCELLATION OF REGISTRATION
BECAUSE OF DEATH**

I hereby declare, under penalties of perjury, that I am a Registered Voter and according to my personal knowledge or belief:

NAME OF DECEASED VOTER

ADDRESS GIVEN ON REGISTRATION RECORD

PRECINCT NAME OR NUMBER

has died and I am requesting that the voting registration records of said deceased person be cancelled.

SIGNATURE OF VOTER

ADDRESS

DATE

REGISTRATION NUMBER

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

PRECINCT CODE

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

LEVY CODE

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

REGISTRATION DATE

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

NOTE This record is to be attached to Permanent Registration Form No. 2 and the Secretary of State notified of cancellation (Chapter 32, Laws of 1961).

PERMANENT

AMENDATORY SECTION (Amending WSR 97-21-045, filed 10/13/97, effective 11/13/97)

WAC 434-324-105 Notification of cancellation ((for failure to vote)). The ~~((registration officer))~~ county auditor shall notify, by mail, each registered voter whose registration has been cancelled ~~((for failure to vote))~~ pursuant to RCW ~~((29.10.080 and WAC 434-24-100))~~ 29.10.075. Such notice shall ~~((be on a form substantially similar to the sample included below. The form, designated Permanent Registration Form 12A, shall measure three and one quarter inches by five and one half inches and be printed on paper stock of one hundred twenty five pound index or a comparable substitute approved by the office of the secretary of state))~~ inform the voter that their voter registration has been cancelled and provide the voter with the information needed to contact the auditor.

NOTIFICATION TO VOTER OF
CANCELLATION OF REGISTRATION

IN ACCORDANCE WITH THE PROVISIONS OF THE PER-
MANENT REGISTRATION LAW (RCW 29.10.090) YOU
ARE HEREBY NOTIFIED THAT, BECAUSE YOU HAVE
NOT VOTED DURING THE PAST THIRTY (30) MONTHS,
YOUR VOTING REGISTRATION IS NOW CANCELLED.
PLEASE UNDERSTAND THAT YOU ARE NOT ENTITLED
TO VOTE AT ANY ELECTION UNTIL YOU RE-REGISTER.
SHOULD YOU HAVE ANY QUESTION, PLEASE FEEL
FREE TO CONTACT MY OFFICE AT:

Respectfully yours,

COUNTY AUDITOR

RETURN POSTAGE GUARANTEED

AMENDATORY SECTION (Amending WSR 97-21-045, filed 10/13/97, effective 11/13/97)

WAC 434-324-130 Contents of list of registered voters for the public. Pursuant to the provisions of RCW 29.04.100 and 29.04.120, the (~~registration officer in each~~) county (~~which maintains voter registration records on electronic data processing systems under the provisions of RCW 29.07.150(2) and provides precinct lists of registered voters at the place as provided by RCW 29.48.030~~) auditor shall furnish to any person, upon request, current lists of registered voters at actual reproduction cost. The (~~registration officer~~) county auditor shall, upon request, select names and addresses from the voter registration records on the basis of the precinct code, the district code, date of registration, or voting history of each individual voter in that portion of the voter registration file. Such lists may contain any information maintained on the computer file except the date of birth of each registered voter and may be in the form of computer printouts, computer-prepared labels, microfilm duplicates, or magnetic tape copies of such information. Such voter registration lists shall be used only for political purposes; commercial use of this information shall be punishable as provided in RCW 29.04.120 as now or hereafter amended.

AMENDATORY SECTION (Amending WSR 97-21-045, filed 10/13/97, effective 11/13/97)

WAC 434-324-120 Contents of precinct list of registered voters. The precinct list of registered voters as required by RCW 29.48.030 shall contain the name, residence address, sex, month and day of birth, and voter registration number of each voter in the precinct, a listing of the districts in which that voter resides, and a designation of the applicable county, legislative district, and precinct, or a ballot code identifying this information. The names shall be listed alphabetically by surname. The list (~~may also~~) shall contain a space for each voter to sign his/her name and to verify his/her current address and a space for the inspector or judge to credit the voter with having participated in a particular election as provided in RCW 29.51.070. (~~Each~~

county shall submit its output format for listing to the secretary of state who shall determine whether such format is suitable for use at the polls. If so, he shall approve that format for use in all elections in that county.) The county auditor may eliminate from precinct lists ongoing absentee voters and voters requesting absentee ballots for that election. If the names of such voters do not appear, the precinct list shall clearly indicate that the voters are not included on the list.

NEW SECTION

The following sections of the Washington Administrative Code as amended, are recodified as follows:

Old WAC Number	New WAC Number
434-30-150	434-230-150

WSR 98-03-044
PERMANENT RULES
BELLEVUE COMMUNITY COLLEGE
 [Filed January 15, 1998, 9:35 a.m.]

Date of Adoption: January 6, 1998.

Purpose: To amend WAC 132H-160-052 Tuition and fee waivers, in order to eliminate incorrect reference to WAC 132H-160-053 and replace it with general language establishing waivers in accordance with state statutes.

Citation of Existing Rules Affected by this Order: Amending WAC 132H-160-052 Tuition and fee waivers.

Statutory Authority for Adoption: RCE 128B.50.140 [RCW 28B.50.140].

Adopted under notice filed as WSR 97-22-012 [97-22-047] on October 31, 1997.

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 1, repealed 0.

Number of Sections Adopted at Request of a Nongovernmental Entity: New 0, amended 0, repealed 0.

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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 1, repealed 0.

Effective Date of Rule: Thirty-one days after filing.
 January 9, 1998
 Elise J. Erickson
 Rules Coordinator

AMENDATORY SECTION [(Amending WSR 95-19-049, filed 9/14/95, effective 10/15/95)]

WAC 132H-160-052 Tuition and fee waivers. (1)

The board of trustees of Community College District VIII may periodically establish tuition and fee waivers for specific categories of students as permitted by state law and by the State Board for Community and Technical Colleges. Such waivers will be established in accordance with state statutes ~~WAC 132H-160-053~~ and with regular college fiscal processes.

(2) Information regarding current waivers will be available in the schedule of classes and from the Student Services Center.

(3) A student who wishes to appeal the determination of his or her tuition and fee waiver eligibility may contact the Associate Dean of Enrollment Services, who will initiate a brief adjudicative proceeding according to RCW 34.05.482 through 34.05.494.

Reviser's note: The bracketed material preceding the section above was supplied by the code reviser's office.

Reviser's note: The typographical error in the above section occurred in the copy filed by the agency and appears in the Register pursuant to the requirements of RCW 34.08.040.

Reviser's note: RCW 34.05.395 requires the use of underlining and deletion marks to indicate amendments to existing rules. The rule published above varies from its predecessor in certain respects not indicated by the use of these markings.

WSR 98-03-045
PERMANENT RULES
EXECUTIVE ETHICS BOARD
 [Filed January 14, 1998, 11:54 a.m.]

Date of Adoption: January 9, 1998.

Purpose: The purpose of this new section WAC 292-110-050 Advisory opinions, is to explain procedures used by state officers, state employees, or members of the general public when requesting advisory opinions.

Statutory Authority for Adoption: RCW 42.52.360 (2)(b) and (c).

Adopted under notice filed as WSR 97-20-098 on September 29, 1997.

Changes Other than Editing from Proposed to Adopted Version: The Executive Ethics Board received no written

comments relating to the adoption of WAC 292-110-050 at the time of its public hearing on November 14, 1997. Board members voted on the following amendments to the proposed rule:

Subsection (2), delete the second sentence referring to assignment of a reference number.

Subsection (5), add a defined time period of thirty days for a petition for reconsideration.

Public comments at the public hearing on November 14, 1997, indicated a concern that informal staff analyses be written. As a result of this comment, the board made the following changes:

Subsection (7), lines 2-3, insert "however, a state officer, state employee, or other person may only rely on written ethics advice."

Line 4, insert the word "written" before "nonbinding."

Subsection (7)(a), line 2, insert the word "written" before "advice."

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 Request of a Nongovernmental 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 1, 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.

Effective Date of Rule: Thirty-one days after filing.
 January 14, 1998
 Margaret A. Grimaldi
 Executive Secretary

EXECUTIVE ETHICS BOARD

CHAPTER 292-110 WAC

AGENCY SUBSTANTIVE RULES

NEW SECTION

WAC 292-110-050 Advisory opinions. State officers and employees are encouraged to seek an advisory opinion whenever they have questions concerning ethical standards or potential conflicts of interest. Advisory opinions are intended to provide guidance to a state officer or state employee in advance of an action or decision and thereby prevent ethics violations.

(1) Whenever requested by a state officer, state employee, or other person, or whenever it deems it in the public interest, the board shall issue advisory opinions. Requests for advisory opinions, if not issued in response to a motion by the Board, shall be written and signed, and addressed to either the chair of the board or the board secretary. Requests may be made by Electronic mail. Each request should provide sufficient information and circumstances to enable the board to evaluate the request and issue the advisory opinion.

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(2) Upon receiving a request for an advisory opinion, the board secretary shall, within fifteen (15) calendar days of receipt, acknowledge the request. Persons requesting advisory opinions shall be notified of the status of the request at thirty (30) day intervals until final action is taken.

(3) The board shall either:

(a) deny the request and state the reason(s) for the denial; or,

(b) issue a written advisory opinion.

(4) An advisory opinion is final when it has been approved by the board and is signed by the board secretary.

(5) A person requesting an advisory opinion may, upon receiving the opinion, petition the board for reconsideration within thirty (30) days of the date the opinion is issued if the person believes that the opinion is erroneous in factual detail. A petition for reconsideration shall be written and signed, and shall briefly state the errors of fact. The board may deny the petition if it lacks merit, or if the person who submitted the request provided erroneous information to the board.

(6) If a state officer or state employee receives an advisory opinion and fails to make a good faith effort to follow its guidance, the board shall give this fact weight when considering a complaint alleging a violation based on the advice received.

(7) Informal Staff Analysis. It is the responsibility of the board secretary to provide ethics advice to any state officer, state employee, or other person; however, a state officer, state employee, or other person may only rely on written ethics advice. In providing such advice, the board secretary may issue a written non-binding staff analysis. A non-binding staff analysis is intended to provide ethics guidance and advice in an expeditious manner, but does not substitute for a formal advisory opinion from the board. The board secretary shall provide a disclaimer to the person requesting the non-binding staff analysis that the advice is solely the opinion of the board secretary and not the opinion of the board or in any respect binding on the board. Only advisory opinions issued by the board and complaints decided by the board may be relied on for determining how the board will interpret a provision of the Ethics in Public Service Act.

(a) in considering a complaint alleging a violation, the board will give weight to the fact that the person charged in the complaint relied in good faith on written advice from the board secretary.

(b) the board may review staff analyses provided under this subsection and may approve or disapprove of any advice so provided. However, any such approval or disapproval is limited to whether staff had reasonable grounds for the advice and should not be interpreted as indicating approval or disapproval of the advice provided.

WSR 98-03-046

PERMANENT RULES

DEPARTMENT OF ECOLOGY

[Order 97-27—Filed January 15, 1998, 12:19 p.m.]

Date of Adoption: January 15, 1998.

Purpose: Establish annual permit fees for wastewater/stormwater permit holders.

Citation of Existing Rules Affected by this Order:
Amending chapter 173-224 WAC, Wastewater discharge permit fees.

Statutory Authority for Adoption: Chapter 90.48 RCW.

Adopted under notice filed as WSR 97-20-048 on September 24, 1997.

Changes Other than Editing from Proposed to Adopted Version: Per request from industry, created a definition for pulp mills with chlorine bleaching; added a general permit fee category for water plants.

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 Request of a Nongovernmental Entity: New 0, amended 2, repealed 0.

Number of Sections Adopted on the Agency's own Initiative: New 0, amended 3, repealed 0.

Number of Sections Adopted in Order to Clarify, Streamline, or Reform Agency Procedures: New 0, amended 3, repealed 0.

Number of Sections Adopted using Negotiated Rule Making: New 0, amended 3, repealed 0; Pilot Rule Making: New 0, amended 0, repealed 0; or Other Alternative Rule Making: New 0, amended 0, repealed 0.

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

January 15, 1998

Tom Fitzsimmons

Director

AMENDATORY SECTION (Amending Order 93-08, filed 4/28/94, effective 5/29/94)

WAC 173-224-030 Definitions. "Administrative expenses" means those costs associated with issuing and administering permits under RCW 90.48.160, 90.48.162, and 90.48.260.

"Aggregate production" means the mining or quarrying of sand, gravel, or rock and/or the production of concrete and/or asphalt.

"Aluminum and magnesium reduction mills" means the electrolytic reduction of alumina or magnesium salts to produce aluminum or magnesium metal.

"Animal unit" means one slaughter or feeder steer, 0.7 mature dairy cow, 25 swine or as more fully defined in Appendix B of 40 CFR 122.

"Annual permit fee" means the fee charged by the department for annual expenses associated with activities specified in RCW 90.48.465. This annual fee is based on the state's fiscal year (July 1 - June 30).

"bbls/d" means barrels per day of feedstock for petroleum refineries.

"bins/yr" means total standard bins used during the last complete calendar year by a facility in the crop preparing industry. The bins measure approximately 47.5 inches x 47.4 inches x 29.5 inches and hold approximately 870 pounds of fruit.

"Chemical pulp mill w/chlorine bleaching" means any pulp mill that uses chlorine or chlorine compounds in their bleaching process.

"Combined food processing waste treatment facility" means a facility which treats wastewater from more than one separately permitted food processor and receives no domestic wastewater or waste from industrial sources other than food processing.

"Combined industrial waste treatment" means a facility which treats wastewater from more than one industry in any of the following categories: Inorganic chemicals, metal finishing, ore concentration, organic chemicals, or photofinishers.

"Combined sewer overflow (CSO)" means the event during which excess combined sewage flow caused by inflow is discharged from a combined sewer, rather than conveyed to the sewage treatment plant because either the capacity of the treatment plant or the combined sewer is exceeded.

"Concentrated animal feeding operation" means an "animal feeding operation" which meets the criteria in Appendix B of 40 CFR 122 as presently enacted and any subsequent modifications thereto.

"Contaminants of concern" means a chemical for which an effluent limit is established (this does not include pH flow, temperature, or other "nonchemical parameters"). Petroleum constituents will be considered as one contaminant of concern even if more than one effluent limit is established (e.g., Total Petroleum Hydrocarbons and BTEX).

"Crane" means a machine used for the hoisting and lifting of ship hulls.

"Crop preparing" means the preparation of fruit for wholesale or retail sale by washing and/or other processes in which the skin of the fruit is not broken and in which the interior part of the fruit does not come in direct contact with the wastewater.

"cu. yds/yr" means the total production from an aggregate production facility in cubic yards during the most recent completed calendar year.

"Department" means the department of ecology.

"Director" means the director of the department of ecology.

"Domestic wastewater" means water carrying human wastes, including kitchen, bath, and laundry wastes from residences, buildings, industrial establishments or other places, together with such groundwater infiltration or surface waters as may be present.

"Domestic wastewater facility" means all structures, equipment, or processes required to collect, carry away, treat, reclaim or dispose of domestic wastewater together with such industrial waste as may be present.

"Existing operations" means those industrial operations requiring a wastewater discharge permit before July 1, 1993.

"EPA" means the United States Environmental Protection Agency.

"Fin fish rearing and hatching" means the raising of fin fish for fisheries enhancement or sale, by means of hatcheries, net pens, or other confined fish facilities.

"Flavor extraction" means the recovery of flavors or essential oils from organic products by steam distillation.

"Food processing" means the preparation of food for human or animal consumption or the preparation of animal byproducts, but exclusive of crop preparing. This category includes, but is not limited to, fruit and vegetable processing, meat and poultry products processing, dairy products

processing, beer production, rendering and animal feed production. Food processing wastewater treatment plants which treat wastes from only one separately permitted food processor shall be treated as one facility for billing purposes.

"Hazardous waste clean up sites" means any facility where there has been confirmation of a release or threatened release of a hazardous substance that requires remedial action other than RCRA corrective action sites.

~~("Inactive sites" means a location where previous mining or processing has occurred; that has not been fully reclaimed; that has no current mining or processing, and that may include stockpiles of raw materials or finished products. The permittee may add or withdraw raw materials or finished products from the stockpiles for transportation offsite for processing, use, or sale and still be considered an inactive site. This definition can be found in ecology's National Pollutant Discharge Elimination System and State Waste Discharge Permit for Process Water and Storm Water Discharges Associated with Sand and Gravel Operations, Rock Quarries and Similar Mining Facilities including Stockpiles of Mined Materials, Concrete Batch Operations and Asphalt Batch Operations.)~~

"Industrial facility" means any facility not included in definition of municipal/domestic facility.

"Industrial gross revenue" means the annual amount of the sales of goods and services produced using the processes regulated by the wastewater discharge permit.

"Industrial storm water" means an operation required to be covered under ecology's ~~(baseline industrial storm water general permit)~~ NPDES and state waste discharge baseline general permit for storm water discharges associated with industrial activities or modifications to that permit or having an individual wastewater permit for storm water only.

"MGD" means permitted flow expressed in million gallons per day.

"Manufacturing" means the making of goods and articles by hand or especially, by machinery into a manufactured product.

"Metal finishing" means the preparation of metal surfaces by means of electroplating, electroless plating, anodizing, coating (chromating, phosphating and coloring), chemical etching and milling, and printed circuit board manufacture.

"Municipal/domestic facility" means a publicly-owned facility treating domestic wastewater together with such industrial wastes as may be present, or a privately-owned facility treating solely domestic wastewater.

"Municipal gross revenue" means gross receipts from monthly, bimonthly, and/or quarterly user charges for sewer services received from all classes of customers;

Included in these user charges are user charges and fees based on wastewater constituents' strengths and characteristics including high-strength surcharges and charges based on biochemical oxygen demand, suspended solids, oil and grease, toxicants, heavy metals, and flow, etc.

Municipal gross revenue includes charges for receipt and treatment of septic tank wastes, holding tank wastes, chemical toilet wastes, etc.

Municipal gross revenue includes all amounts received from other municipalities for sewage interception, treatment, collection, or disposal.

Gross revenue excludes:

Amounts derived by municipalities directly from taxes levied for the support or maintenance of sewer services.

Late charges, penalties for nontimely payment by customers, interest on late payments, and all other penalties and fines.

Permit fees and compliance monitoring fees for wastewater discharge permits issued by municipalities with local pretreatment programs. Permit fees which are charged to cover the cost of providing sewer service are not excluded from municipal gross revenue.

Receipts by a municipality of special assessments or installments thereof and interests and penalties thereon, and charges in lieu of assessments.

Connection charges.

Revenues from sales of by-products such as sludge, processed wastewater, etc.

"Municipality" means a city, town, county, district, association, or other public body created by or pursuant to state law and having jurisdiction over disposal of sewage, industrial wastes, or other wastes, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under 33 U.S.C. Sec. 1288. State government agencies are not included in this definition.

"Noncontact cooling water with additives" means water used for cooling that comes into contact with corrosives.

"Noncontact cooling water without additives" means water used for cooling that does not come into direct contact with any raw material, intermediate product, waste product or finished product, and which does not contain chemicals added by the permittee. The noncontact cooling water fee without additives category applies to those facilities which discharge only noncontact cooling water and which have no other wastewater discharges required to be permitted under RCW 90.48.160, 90.48.162, and 90.48.260.

"Nonferrous metals forming" means the manufacturing of semifinished products from pure metal or metal alloys other than iron or steel or of metals not otherwise classified in WAC 173-224-040(2).

"Nonoperating aggregate site" means a location where previous mining or processing has occurred; that has not been fully reclaimed; that has no current mining or processing, and that may include stockpiles of raw materials or finished products. The permittee may add or withdraw raw materials or finished products from the stockpiles for transportation offsite for processing, use, or sale and still be considered a nonoperating site. This definition can be found in ecology's National Pollutant Discharge Elimination System and State Waste Discharge Permit for Process Water and Storm Water Discharges Associated with Sand and Gravel Operations, Rock Quarries and Similar Mining Facilities including Stockpiles of Mined Materials, Concrete Batch Operations and Asphalt Batch Operations.

"NPDES permit" means a National Pollutant Discharge Elimination System permit issued by the department pursuant to Section 402 of the federal Clean Water Act and RCW 90.48.260.

"Person" means any political subdivision, government agency, municipality, industry, public or private corporation, partnership, association, firm, individual, or any other entity whatever.

"RCRA" means Resource Conservation Recovery Act clean up sites required to have a wastewater discharge permit

resulting from a corrective action under relevant federal authorities or under chapters 70.105 and 70.105D RCW including chapters 173-303 and 173-340 WAC, and are not subject to cost recovery.

"Residential equivalent" means a single-family residence or a unit of sewer service that yields an amount of gross revenue equal to the annual user charge for a single-family residence. In cases where the permit holder does not maintain data on gross revenue, user charges, and/or the number of single-family residences that it serves, "residential equivalent" means an influent flow of two hundred fifty gallons per day.

"Sewer service" means the activity of receiving sewage deposited into and carried off by a system of sewers, drains, and pipes to a common point, or points, for disposal or for transfer to treatment for disposal, and activities involving the interception, transfer, storage, treatment, and/or disposal of sewage, or any of these activities.

"State waste discharge permit" means a permit required under RCW 98.48.260.

"Storm water" means an industrial operation or construction activity discharging storm water runoff as defined in 40 CFR 122.26 (b)(14) or facilities who are permitted as a significant contributor of pollutants as allowed in the federal Clean Water Act at Section 402 (p)(2)(E).

"Tons/yr." means the total production from an asphalt production facility in tons during the most recent completed calendar year.

"Vegetable/bulb washing" means the washing, packing, and shipping of fresh vegetables and bulbs when there is no cooking or cutting of the product before packing.

AMENDATORY SECTION (Amending Order 94-21, filed 1/10/96, effective 2/10/96)

WAC 173-224-040 Permit fee schedule. (1) Application fee. In addition to the annual fee, first time applicants (except those applying for coverage under a general permit) will pay a one time application fee of twenty-five percent of the annual permit fee, or \$250.00, whichever is greater. An application fee will be assessed for RCRA sites regardless of whether a new permit is being issued or an existing permit for other than the discharge resulting from the RCRA corrective action, is being modified.

(2) Industrial facility categories.

((INDUSTRIAL FACILITY CATEGORIES	FY 96	FY 97
	ANNUAL PERMIT FEE	ANNUAL PERMIT FEE
Aluminum Alloys	\$10,471.00	\$10,937.00
Aluminum and Magnesium Reduction Mills		
a. NPDES Permit	61,749.00	64,497.00
b. State Permit	30,875.00	32,249.00
Aluminum Forming	31,412.00	32,810.00
Aggregate Production		
a. Mining Activities		
1. Mining, screening, washing and/or crushing	1,802.00	1,882.00
2. Inactive Sites		
A. Single site	398.00	416.00
B. Single owner/multiple site (fee per site)		
i. 1 site will pay	398.00	416.00
ii. Additional sites 2 < 6 will pay	225.00	235.00
iii. Additional sites 6 < 11 will pay	150.00	157.00

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iv. Additional sites 11 and greater will pay 75.00 78.00

The final fee for single owner/multiple inactive sites is the total sum of all the subcategories:

- b. Asphalt Production
 - 1. 0 < 50,000 tons/yr. 751.00 784.00
 - 2. 50,000 < 300,000 tons/yr. 1,802.00 1,882.00
 - 3. 300,000 tons/yr. and greater 2,253.00 2,353.00
- c. Concrete Production
 - 1. 0 < 25,000 cu. yds/yr. 751.00 784.00
 - 2. 25,000 < 200,000 cu. yds/yr. 1,802.00 1,882.00
 - 3. 200,000 cu. yds/yr. and greater 2,254.00 2,353.00

The fee for a facility in the aggregate production category is the sum of the applicable fees in the mining activities and concrete and asphalt production categories:

- Aquaculture
 - a. Finfish hatching and rearing 3,141.00 3,281.00
 - b. Shellfish hatching 107.00 112.00

- Boat Yards
 - a. With storm water only discharge 268.00 280.00
 - b. All others 537.00 561.00

- Coal Mining and Preparation
 - a. < 200,000 tons per year 4,188.00 4,374.00
 - b. 200,000 < 500,000 tons per year 9,424.00 9,843.00
 - c. 500,000 < 1,000,000 tons per year 16,752.00 17,497.00
 - d. 1,000,000 tons per year and greater 29,879.00 32,810.00

- Combined Industrial Waste Treatment
 - a. < 10,000 gpd 2,094.00 2,187.00
 - b. 10,000 < 50,000 gpd 5,235.00 5,468.00
 - c. 50,000 < 100,000 gpd 10,471.00 10,937.00
 - d. 100,000 < 500,000 gpd 20,941.00 21,873.00
 - e. 500,000 gpd and greater 31,412.00 32,810.00

Combined Food Processing Waste Treatment Facilities 10,471.00 10,937.00

- Combined Sewer Overflow System
 - a. < 50 acres 2,094.00 2,187.00
 - b. 50 < 100 acres 5,235.00 5,468.00
 - c. 100 < 500 acres 6,283.00 6,563.00
 - d. 500 acres and greater 8,377.00 8,750.00

Commercial Laundry 268.00 280.00

- Concentrated Animal Feeding Operation (Including Dairies)
 - a. < 200 Animal Units 107.00 112.00
 - b. 200 < 400 Animal Units 268.00 280.00
 - c. 400 < 600 Animal Units 537.00 561.00
 - d. 600 < 800 Animal Units 805.00 841.00
 - e. 800 Animal Units and greater 1,074.00 1,122.00

- Crop Preparing
 - a. 0 < 1,000 bins/yr. 209.00 218.00
 - b. 1,000 < 5,000 bins/yr. 418.00 437.00
 - c. 5,000 < 10,000 bins/yr. 838.00 875.00
 - d. 10,000 < 15,000 bins/yr. 1,676.00 1,751.00
 - e. 15,000 < 20,000 bins/yr. 2,774.00 2,897.00
 - f. 20,000 < 25,000 bins/yr. 3,874.00 4,046.00
 - g. 25,000 < 50,000 bins/yr. 5,182.00 5,413.00
 - h. 50,000 < 75,000 bins/yr. 5,759.00 6,015.00
 - i. 75,000 < 100,000 bins/yr. 6,701.00 6,999.00
 - j. 100,000 < 125,000 bins/yr. 8,377.00 8,750.00
 - k. 125,000 < 150,000 bins/yr. 10,471.00 10,937.00
 - l. 150,000 bins/yr. and greater 12,562.00 13,124.00

- Facilities Not Otherwise Classified
 - a. < 1,000 gpd 1,047.00 1,094.00
 - b. 1,000 < 10,000 gpd 2,094.00 2,187.00
 - c. 10,000 < 50,000 gpd 5,235.00 5,468.00
 - d. 50,000 < 100,000 gpd 8,377.00 8,750.00
 - e. 100,000 < 500,000 gpd 16,752.00 17,497.00
 - f. 500,000 < 1,000,000 gpd 20,941.00 21,873.00
 - g. 1,000,000 gpd and greater 31,412.00 32,810.00

- Flavor Extraction
 - a. Steam Distillation 107.00 112.00

- Food Processing
 - a. < 1,000 gpd 1,047.00 1,094.00
 - b. 1,000 < 10,000 gpd 2,670.00 2,789.00
 - c. 10,000 < 50,000 gpd 4,764.00 4,976.00
 - d. 50,000 < 100,000 gpd 7,486.00 7,819.00
 - e. 100,000 < 250,000 gpd 10,471.00 10,937.00
 - f. 250,000 < 500,000 gpd 13,769.00 14,382.00
 - g. 500,000 < 750,000 gpd 17,276.00 18,045.00
 - h. 750,000 < 1,000,000 gpd 20,941.00 21,873.00
 - i. 1,000,000 < 2,500,000 gpd 25,653.00 26,795.00
 - j. 2,500,000 < 5,000,000 gpd 28,794.00 30,075.00
 - k. 5,000,000 gpd and greater 31,412.00 32,810.00

- Fuel and Chemical Storage
 - a. < 50,000 bbls 1,047.00 1,094.00
 - b. 50,000 < 100,000 bbls 2,094.00 2,187.00
 - c. 100,000 < 500,000 bbls 5,235.00 5,468.00
 - d. 500,000 bbls and greater 10,471.00 10,937.00

- Hazardous Waste Clean-Up Sites
 - a. Leaking Underground Storage Tanks (LUST)
 - 1. State Permit 2,747.00 2,869.00
 - 2. NPDES Permit Issued pre 7/1/94 2,747.00 2,869.00
 - 3. NPDES Permit Issued post 7/1/94 5,493.00 5,737.00
 - b. NonLUST Sites
 - 1. 1 or 2 Contaminants of concern 5,370.00 5,609.00
 - 2. > 2 Contaminants of concern 10,739.00 11,217.00

- Ink Formulation and Printing
 - a. Commercial Print Shops 1,611.00 1,683.00
 - b. Newspapers 2,685.00 2,804.00
 - c. Box Plants 4,296.00 4,487.00
 - d. Ink Formulation 5,370.00 5,609.00

- Inorganic Chemicals Manufacturing
 - a. Lime Products 5,235.00 5,468.00
 - b. Fertilizer 6,283.00 6,583.00
 - c. Peroxide 8,377.00 8,750.00
 - d. Alkaline Earth Salts 10,471.00 10,937.00
 - e. Metal Salts 14,658.00 15,310.00
 - f. Acid Manufacturing 20,941.00 21,873.00
 - g. Chlor-alkali 41,833.00 43,747.00

Irrigation Drainage Districts (only if covered under a municipal storm water permit as listed in subsection (3)(a)(iii) of this section):

- Iron and Steel
 - a. Foundries 10,471.00 10,937.00
 - b. Mills 20,941.00 21,873.00

- Metal Finishing
 - a. < 1,000 gpd 1,256.00 1,312.00
 - b. 1,000 < 10,000 gpd 2,094.00 2,187.00
 - c. 10,000 < 50,000 gpd 5,235.00 5,468.00
 - d. 50,000 < 100,000 gpd 10,471.00 10,937.00
 - e. 100,000 < 500,000 gpd 20,941.00 21,873.00
 - f. 500,000 gpd and greater 31,412.00 32,810.00

- Noncontact Cooling Water With Additives
 - a. < 1,000 gpd 655.00 684.00
 - b. 1,000 < 10,000 gpd 1,309.00 1,367.00
 - c. 10,000 < 50,000 gpd 1,964.00 2,051.00
 - d. 50,000 < 100,000 gpd 4,582.00 4,786.00
 - e. 100,000 < 500,000 gpd 7,853.00 8,202.00
 - f. 500,000 < 1,000,000 gpd 11,126.00 11,621.00
 - g. 1,000,000 < 2,500,000 gpd 14,398.00 15,039.00
 - h. 2,500,000 < 5,000,000 gpd 17,668.00 18,454.00
 - i. 5,000,000 gpd and greater 20,941.00 21,873.00

- Noncontact Cooling Water Without Additives
 - a. < 1,000 gpd 524.00 547.00
 - b. 1,000 < 10,000 gpd 1,047.00 1,094.00
 - c. 10,000 < 50,000 gpd 1,571.00 1,641.00
 - d. 50,000 < 100,000 gpd 3,665.00 3,828.00
 - e. 100,000 < 500,000 gpd 6,283.00 6,563.00
 - f. 500,000 < 1,000,000 gpd 8,900.00 9,296.00
 - g. 1,000,000 < 2,500,000 gpd 11,518.00 12,031.00
 - h. 2,500,000 < 5,000,000 gpd 14,435.00 14,764.00
 - i. 5,000,000 gpd and greater 16,752.00 17,497.00

PERMANENT

Nonferrous Metals Forming	10,471.00	10,937.00
Ore Mining		
a. Ore Mining	2,094.00	2,187.00
b. Ore mining w/physical concentration processes	4,188.00	4,374.00
c. Ore mining with physical and chemical concentration processes	16,752.00	17,497.00
Organic Chemicals Manufacturing		
a. Fertilizer	10,471.00	10,937.00
b. Aliphatic	20,941.00	21,873.00
c. Aromatic	31,412.00	32,810.00
Petroleum Refining		
a. < 10,000 bbls/d	20,941.00	21,873.00
b. 10,000 < 50,000 bbls/d	41,883.00	43,747.00
c. 50,000 bbls/d and greater	83,764.00	87,497.00
Photofinishers		
a. < 1,000 gpd	838.00	875.00
b. 1,000 gpd and greater	2,094.00	2,187.00
Power and/or Steam Plants		
a. Steam Generation Nonelectric	4,188.00	4,374.00
b. Hydroelectric	4,188.00	4,374.00
c. Nonfossil Fuel	6,283.00	6,563.00
d. Fossil Fuel	16,752.00	17,497.00
Pulp, Paper and Paper Board		
a. Fiber Recyclers	10,471.00	10,937.00
b. Paper Mills	20,941.00	21,873.00
c. Groundwood Pulp Mills		
1. < 300 tons per day	31,412.00	32,810.00
2. > 300 tons per day	62,824.00	65,620.00
d. Chemical Pulp Mills w/o Chlorine Bleaching	83,764.00	87,491.00
e. Chemical Pulp Mills w/Chlorine Bleaching	94,265.00	98,428.00
Radioactive Effluents and Discharges (RED)		
a. < 3 waste streams	20,270.00	21,172.00
b. 3 < 8 waste streams	35,180.00	36,746.00
c. 8 waste streams and greater	57,943.00	60,521.00
RCRA Corrective Action Sites	14,718.00	15,373.00
Seafood Processing		
a. < 1,000 gpd	1,047.00	1,094.00
b. 1,000 < 10,000 gpd	2,670.00	2,789.00
c. 10,000 < 50,000 gpd	4,764.00	4,976.00
d. 50,000 < 100,000 gpd	7,486.00	7,819.00
e. 100,000 gpd and greater	10,471.00	10,937.00
Shipyards		
a. Per crane, travel lift, small boat lift	2,094.00	2,187.00
b. Per drydock under 250 ft in length	2,094.00	2,187.00
c. Per graving dock	2,094.00	2,187.00
d. Per marine way	3,141.00	3,281.00
e. Per scroflift	3,141.00	3,281.00
f. Per drydock over 250 ft in length	4,188.00	4,374.00

The fee for a facility in the shipyard category is the sum of the fees for the applicable units in the facility.

Solid Waste Sites (nonstorm water)		
a. Nonputrescible	4,188.00	4,374.00
b. < 50 acres	8,377.00	8,750.00
c. 50 < 100 acres	16,752.00	17,497.00
d. 100 < 250 acres	20,941.00	21,873.00
e. 250 acres and greater	31,412.00	32,810.00

Storm Water (Unless specifically categorized elsewhere-)		
a. Individual Industrial Permits		
1. < 50 acres	2,094.00	2,187.00
2. 50 < 100 acres	4,188.00	4,374.00
3. 100 < 500 acres	6,283.00	6,563.00
4. 500 acres and greater	8,377.00	8,750.00
b. Facilities covered under the Baseline Industrial Storm Water General Permit	279.00	291.00
c. Construction activities covered under the		

Baseline Industrial Storm Water General Permit	279.00	291.00
Textile Mills	41,833.00	43,747.00
Timber Products		
a. Log Storage	2,094.00	2,187.00
b. Veneer	4,188.00	4,374.00
c. Sawmills	8,377.00	8,750.00
d. Hardwood, Plywood	14,658.00	15,310.00
e. Wood Preserving	20,941.00	21,873.00
Vegetable/Bulb Washing Facilities		
a. < 1,000 gpd	69.00	72.00
b. 1,000 < 5,000 gpd	139.00	145.00
c. 5,000 < 10,000 gpd	276.00	288.00
d. 10,000 < 20,000 gpd	554.00	579.00
e. 20,000 and greater	918.00	959.00
Vehicle Maintenance and Freight Transfer		
a. < 0.5 acre	2,094.00	2,187.00
b. 0.5 < 1.0 acre	4,188.00	4,374.00
c. 1.0 acre and greater	6,283.00	6,563.00
Water Plants		
a. Potable water treatment	2,618.00	2,735.00
Wineries		
a. < 500 gpd	214.00	224.00
b. 500 < 750 gpd	429.00	448.00
c. 750 < 1,000 gpd	857.00	895.00
d. 1,000 < 2,500 gpd	1,714.00	1,790.00
e. 2,500 < 5,000 gpd	2,731.00	2,853.00
f. 5,000 gpd and greater	3,749.00	3,916.00

<u>INDUSTRIAL FACILITY CATEGORIES</u>	<u>FY 98 ANNUAL PERMIT FEE</u>	<u>FY 99 ANNUAL PERMIT FEE</u>
<u>Aluminum Alloys</u>	<u>\$11,380.00</u>	<u>\$11,836.00</u>
<u>Aluminum and Magnesium Reduction Mills</u>		
a. NPDES Permit	<u>67,109.00</u>	<u>69,800.00</u>
b. State Permit	<u>33,555.00</u>	<u>34,901.00</u>
<u>Aluminum Forming</u>	<u>34,139.00</u>	<u>35,508.00</u>
<u>Aggregate Production - Individual Permit Coverage</u>		
a. Mining Activities		
1. Mining, screening, washing and/or crushing	<u>1,958.00</u>	<u>2,037.00</u>
2. Nonoperating aggregate site		
A. Single site	<u>433.00</u>	<u>450.00</u>
B. Single owner/multiple site (fee per site)		
i. 1 site will pay	<u>433.00</u>	<u>450.00</u>
ii. Additional sites 2 - < 6 will pay	<u>245.00</u>	<u>255.00</u>
iii. Additional sites 6 - < 11 will pay	<u>163.00</u>	<u>170.00</u>
iv. Additional sites 11 and greater will pay	<u>81.00</u>	<u>84.00</u>
The final fee for single owner/multiple nonoperating aggregate sites is the total sum of all the subcategories.		
b. Asphalt Production		
1. 0 - < 50,000 tons/yr.	<u>816.00</u>	<u>849.00</u>
2. 50,000 - < 300,000 tons/yr.	<u>1,958.00</u>	<u>2,037.00</u>
3. 300,000 tons/yr. and greater	<u>2,448.00</u>	<u>2,546.00</u>
c. Concrete Production		
1. 0 - < 25,000 cu. yds/yr.	<u>816.00</u>	<u>849.00</u>
2. 25,000 - < 200,000 cu. yds/yr.	<u>1,958.00</u>	<u>2,037.00</u>
3. 200,000 cu. yds/yr. and greater	<u>2,448.00</u>	<u>2,546.00</u>
The fee for a facility in the aggregate production category is the sum of the applicable fees in the mining activities and concrete and asphalt production categories.		
<u>Aggregate Production - General Permit Coverage</u>		
a. Mining Activities		
1. Mining, screening, washing and/or crushing	<u>1,371.00</u>	<u>1,426.00</u>
2. Nonoperating aggregate site		
A. Single Site	<u>303.00</u>	<u>315.00</u>
B. Single owner/multiple site		

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i. 1 site will pay	303.00	315.00
ii. Additional sites 2 - < 6 will pay	172.00	179.00
iii. Additional sites 6 - < 11 will pay	114.00	119.00
iv. Additional sites 11 and greater will pay	57.00	59.00

The final fee for single owner/multiple nonoperating aggregate sites is the total sum of all the subcategories.

b. Asphalt Production		
1. 0 - < 50,000 tons/yr.	571.00	594.00
2. 50,000 - < 300,000 tons/yr.	1,371.00	1,427.00
3. 300,000 tons/yr. and greater	1,714.00	1,782.00
c. Concrete Production		
1. 0 - < 25,000 cu. yds/yr.	571.00	594.00
2. 25,000 - < 200,000 cu. yds/yr.	1,371.00	1,427.00
3. 200,000 cu. yds/yr. and greater	1,714.00	1,782.00

The fee for a facility in the aggregate production category is the sum of the applicable fees in the mining activities and concrete and asphalt production categories.

Aquaculture

a. Finfish hatching and rearing - Individual Permit		
	3,414.00	3,551.00
b. Finfish hatching and rearing - General Permit Coverage		
	2,390.00	2,486.00
c. Shellfish hatching		
	117.00	122.00

Boat Yards - Individual Permit Coverage

a. With storm water only discharge	291.00	303.00
b. All others	584.00	607.00

Boat Yards - General Permit Coverage

a. With storm water only discharge	204.00	212.00
b. All others	409.00	425.00

Coal Mining and Preparation

a. < 200,000 tons per year	4,551.00	4,733.00
b. 200,000 - < 500,000 tons per year	10,242.00	10,653.00
c. 500,000 - < 1,000,000 tons per year	18,206.00	18,936.00
d. 1,000,000 tons per year and greater	34,139.00	35,508.00

Combined Industrial Waste Treatment

a. < 10,000 gpd	2,276.00	2,367.00
b. 10,000 - < 50,000 gpd	5,689.00	5,917.00
c. 50,000 - < 100,000 gpd	11,380.00	11,836.00
d. 100,000 - < 500,000 gpd	22,759.00	23,672.00
e. 500,000 gpd and greater	34,139.00	35,508.00

Combined Food Processing Waste Treatment Facilities

	10,895.00	11,332.00
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Combined Sewer Overflow System

a. < 50 acres	2,276.00	2,367.00
b. 50 - < 100 acres	5,689.00	5,918.00
c. 100 - < 500 acres	6,829.00	7,103.00
d. 500 acres and greater	9,104.00	9,469.00

Commercial Laundry

	291.00	303.00
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Concentrated Animal Feeding Operation (Including Dairies) - Individual Permit Coverage

a. < 200 Animal Units	117.00	121.00
b. 200 - < 400 Animal Units	291.00	303.00
c. 400 - < 600 Animal Units	584.00	607.00
d. 600 - < 800 Animal Units	875.00	910.00
e. 800 Animal Units and greater	1,167.00	1,214.00

Concentrated Animal Feeding Operation (Including Dairies) - General Permit Coverage

a. < 200 Animal Units	82.00	85.00
b. 200 - < 400 Animal Units	204.00	212.00
c. 400 - < 600 Animal Units	409.00	425.00
d. 600 - < 800 Animal Units	613.00	637.00
e. 800 Animal Units and greater	817.00	850.00

Crop Preparing - Individual Permit Coverage

a. 0 - < 1,000 bins/yr.	227.00	236.00
b. 1,000 - < 5,000 bins/yr.	455.00	473.00
c. 5,000 - < 10,000 bins/yr.	910.00	947.00
d. 10,000 - < 15,000 bins/yr.	1,822.00	1,895.00
e. 15,000 - < 20,000 bins/yr.	3,014.00	3,135.00
f. 20,000 - < 25,000 bins/yr.	4,210.00	4,379.00

g. 25,000 - < 50,000 bins/yr.	5,632.00	5,858.00
h. 50,000 - < 75,000 bins/yr.	6,259.00	6,510.00
i. 75,000 - < 100,000 bins/yr.	7,282.00	7,574.00
j. 100,000 - < 125,000 bins/yr.	9,104.00	9,469.00
k. 125,000 - < 150,000 bins/yr.	11,380.00	11,836.00
l. 150,000 bins/yr. and greater	13,656.00	14,203.00

Crop Preparing - General Permit Coverage

a. 0 - < 1,000 bins/yr.	159.00	165.00
b. 1,000 - < 5,000 bins/yr.	319.00	331.00
c. 5,000 - < 10,000 bins/yr.	637.00	663.00
d. 10,000 - < 15,000 bins/yr.	1,275.00	1,327.00
e. 15,000 - < 20,000 bins/yr.	2,110.00	2,195.00
f. 20,000 - < 25,000 bins/yr.	2,947.00	3,065.00
g. 25,000 - < 50,000 bins/yr.	3,942.00	4,100.00
h. 50,000 - < 75,000 bins/yr.	4,381.00	4,557.00
i. 75,000 - < 100,000 bins/yr.	5,097.00	5,302.00
j. 100,000 - < 125,000 bins/yr.	6,373.00	6,628.00
k. 125,000 - < 150,000 bins/yr.	7,966.00	8,285.00
l. 150,000 bins/yr. and greater	9,559.00	9,942.00

Facilities Not Otherwise Classified - Individual Permit Coverage

a. < 1,000 gpd	1,138.00	1,184.00
b. 1,000 - < 10,000 gpd	2,276.00	2,367.00
c. 10,000 - < 50,000 gpd	5,689.00	5,918.00
d. 50,000 - < 100,000 gpd	9,104.00	9,469.00
e. 100,000 - < 500,000 gpd	18,206.00	18,936.00
f. 500,000 - < 1,000,000 gpd	22,759.00	23,671.00
g. 1,000,000 gpd and greater	34,139.00	35,508.00

Facilities Not Otherwise Classified - General Permit Coverage

a. < 1,000 gpd	797.00	829.00
b. 1,000 - < 10,000 gpd	1,593.00	1,657.00
c. 10,000 - < 50,000 gpd	3,982.00	4,143.00
d. 50,000 - < 100,000 gpd	6,373.00	6,628.00
e. 100,000 - < 500,000 gpd	12,744.00	13,255.00
f. 500,000 - < 1,000,000 gpd	15,931.00	16,570.00
g. 1,000,000 gpd and greater	23,897.00	24,856.00

Flavor Extraction

a. Steam Distillation	117.00	121.00
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Food Processing

a. < 1,000 gpd	1,138.00	1,183.00
b. 1,000 - < 10,000 gpd	2,902.00	3,018.00
c. 10,000 - < 50,000 gpd	5,178.00	5,385.00
d. 50,000 - < 100,000 gpd	8,136.00	8,462.00
e. 100,000 - < 250,000 gpd	11,380.00	11,836.00
f. 250,000 - < 500,000 gpd	14,964.00	15,564.00
g. 500,000 - < 750,000 gpd	18,776.00	19,529.00
h. 750,000 - < 1,000,000 gpd	22,759.00	23,671.00
i. 1,000,000 - < 2,500,000 gpd	27,880.00	28,998.00
j. 2,500,000 - < 5,000,000 gpd	31,293.00	32,548.00
k. 5,000,000 gpd and greater	34,139.00	35,508.00

Fuel and Chemical Storage

a. < 50,000 bbls	1,138.00	1,184.00
b. 50,000 - < 100,000 bbls	2,276.00	2,367.00
c. 100,000 - < 500,000 bbls	5,689.00	5,918.00
d. 500,000 bbls and greater	11,380.00	11,836.00

Hazardous Waste Clean Up Sites

a. Leaking Underground Storage Tanks (LUST)		
1. State Permit	2,985.00	3,105.00
2. NPDES Permit Issued pre 7/1/94	2,985.00	3,105.00
3. NPDES Permit Issued post 7/1/94	5,969.00	6,209.00
b. NonLUST Sites		
1. 1 or 2 Contaminants of concern	5,836.00	6,070.00
2. > 2 Contaminants of concern	11,671.00	12,139.00

Ink Formulation and Printing

a. Commercial Print Shops	1,751.00	1,821.00
b. Newspapers	2,918.00	3,035.00
c. Box Plants	4,669.00	4,856.00
d. Ink Formulation	5,836.00	6,070.00

Inorganic Chemicals Manufacturing

a. Lime Products	5,689.00	5,918.00
b. Fertilizer	6,850.00	7,124.00
c. Peroxide	9,104.00	9,469.00

PERMANENT

<u>d. Alkaline Earth Salts</u>	<u>11,380.00</u>	<u>11,836.00</u>	<u>Pulp, Paper and Paper Board</u>		
<u>e. Metal Salts</u>	<u>15,930.00</u>	<u>16,569.00</u>	<u>a. Fiber Recyclers</u>	<u>11,380.00</u>	<u>11,835.00</u>
<u>f. Acid Manufacturing</u>	<u>22,759.00</u>	<u>23,671.00</u>	<u>b. Paper Mills</u>	<u>22,759.00</u>	<u>23,671.00</u>
<u>g. Chlor-alkali</u>	<u>45,519.00</u>	<u>47,344.00</u>	<u>c. Groundwood Pulp Mills</u>		
<u>Iron and Steel</u>			<u>1. < 300 tons per day</u>	<u>34,139.00</u>	<u>35,508.00</u>
<u>a. Foundries</u>	<u>11,380.00</u>	<u>11,836.00</u>	<u>2. > 300 tons per day</u>	<u>68,278.00</u>	<u>71,016.00</u>
<u>b. Mills</u>	<u>22,759.00</u>	<u>23,692.00</u>	<u>d. Chemical Pulp Mills</u>		
<u>Metal Finishing</u>			<u>w/o Chlorine Bleaching</u>	<u>91,034.00</u>	<u>94,685.00</u>
<u>a. < 1,000 gpd</u>	<u>1,365.00</u>	<u>1,419.00</u>	<u>e. Chemical Pulp Mills</u>		
<u>b. 1,000 - < 10,000 gpd</u>	<u>2,275.00</u>	<u>2,366.00</u>	<u>w/Chlorine Bleaching</u>	<u>102,414.00</u>	<u>106,521.00</u>
<u>c. 10,000 - < 50,000 gpd</u>	<u>5,689.00</u>	<u>5,917.00</u>	<u>Radioactive Effluents and Discharges (RED)</u>		
<u>d. 50,000 - < 100,000 gpd</u>	<u>11,379.00</u>	<u>11,835.00</u>	<u>a. < 3 waste streams</u>	<u>22,029.00</u>	<u>22,913.00</u>
<u>e. 100,000 - < 500,000 gpd</u>	<u>22,758.00</u>	<u>23,670.00</u>	<u>b. 3 - < 8 waste streams</u>	<u>38,234.00</u>	<u>39,767.00</u>
<u>f. 500,000 gpd and greater</u>	<u>34,138.00</u>	<u>35,506.00</u>	<u>c. 8 waste streams and greater</u>	<u>62,972.00</u>	<u>65,497.00</u>
<u>Noncontact Cooling Water With Additives</u>			<u>RCRA Corrective Action Sites</u>	<u>15,996.00</u>	<u>16,637.00</u>
<u>a. < 1,000 gpd</u>	<u>712.00</u>	<u>740.00</u>	<u>Seafood Processing</u>		
<u>b. 1,000 - < 10,000 gpd</u>	<u>1,422.00</u>	<u>1,479.00</u>	<u>a. < 1,000 gpd</u>	<u>1,138.00</u>	<u>1,184.00</u>
<u>c. 10,000 - < 50,000 gpd</u>	<u>2,134.00</u>	<u>2,220.00</u>	<u>b. 1,000 - < 10,000 gpd</u>	<u>2,902.00</u>	<u>3,018.00</u>
<u>d. 50,000 - < 100,000 gpd</u>	<u>4,980.00</u>	<u>5,179.00</u>	<u>c. 10,000 - < 50,000 gpd</u>	<u>5,178.00</u>	<u>5,385.00</u>
<u>e. 100,000 - < 500,000 gpd</u>	<u>8,534.00</u>	<u>8,876.00</u>	<u>d. 50,000 - < 100,000 gpd</u>	<u>8,136.00</u>	<u>8,462.00</u>
<u>f. 500,000 - < 1,000,000 gpd</u>	<u>12,092.00</u>	<u>12,577.00</u>	<u>e. 100,000 gpd and greater</u>	<u>11,380.00</u>	<u>11,836.00</u>
<u>g. 1,000,000 - < 2,500,000 gpd</u>	<u>15,648.00</u>	<u>16,276.00</u>	<u>Shipyards</u>		
<u>h. 2,500,000 - < 5,000,000 gpd</u>	<u>19,201.00</u>	<u>19,971.00</u>	<u>a. Per crane, travel lift, small boat lift</u>	<u>2,276.00</u>	<u>2,367.00</u>
<u>i. 5,000,000 gpd and greater</u>	<u>22,759.00</u>	<u>23,671.00</u>	<u>b. Per drydock under 250 ft in length</u>	<u>2,276.00</u>	<u>2,367.00</u>
<u>Noncontact Cooling Water Without Additives - Individual Permit Coverage</u>			<u>c. Per graving dock</u>	<u>2,276.00</u>	<u>2,367.00</u>
<u>a. < 1,000 gpd</u>	<u>569.00</u>	<u>592.00</u>	<u>d. Per marine way</u>	<u>3,414.00</u>	<u>3,551.00</u>
<u>b. 1,000 - < 10,000 gpd</u>	<u>1,138.00</u>	<u>1,184.00</u>	<u>e. Per syncrolift</u>	<u>3,414.00</u>	<u>3,551.00</u>
<u>c. 10,000 - < 50,000 gpd</u>	<u>1,707.00</u>	<u>1,776.00</u>	<u>f. Per drydock over 250 ft in length</u>	<u>4,551.00</u>	<u>4,734.00</u>
<u>d. 50,000 - < 100,000 gpd</u>	<u>3,983.00</u>	<u>4,143.00</u>	<u>The fee for a facility in the shipyard category is the sum of the fees for the applicable units in the facility.</u>		
<u>e. 100,000 - < 500,000 gpd</u>	<u>6,829.00</u>	<u>7,103.00</u>	<u>Solid Waste Sites (nonstorm water)</u>		
<u>f. 500,000 - < 1,000,000 gpd</u>	<u>9,672.00</u>	<u>10,060.00</u>	<u>a. Nonputrescible</u>	<u>4,551.00</u>	<u>4,734.00</u>
<u>g. 1,000,000 - < 2,500,000 gpd</u>	<u>12,518.00</u>	<u>13,020.00</u>	<u>b. < 50 acres</u>	<u>9,104.00</u>	<u>9,469.00</u>
<u>h. 2,500,000 - < 5,000,000 gpd</u>	<u>15,362.00</u>	<u>15,978.00</u>	<u>c. 50 - < 100 acres</u>	<u>18,206.00</u>	<u>18,936.00</u>
<u>i. 5,000,000 gpd and greater</u>	<u>18,206.00</u>	<u>18,936.00</u>	<u>d. 100 - < 250 acres</u>	<u>22,759.00</u>	<u>23,671.00</u>
<u>Noncontact Cooling Water Without Additives - General Permit Coverage</u>			<u>e. 250 acres and greater</u>	<u>34,139.00</u>	<u>35,508.00</u>
<u>a. < 1,000 gpd</u>	<u>398.00</u>	<u>414.00</u>	<u>Storm Water (Unless specifically categorized elsewhere.)</u>		
<u>b. 1,000 - < 10,000 gpd</u>	<u>797.00</u>	<u>829.00</u>	<u>a. Individual Industrial Permits</u>		
<u>c. 10,000 - < 50,000 gpd</u>	<u>1,195.00</u>	<u>1,243.00</u>	<u>1. < 50 acres</u>	<u>2,276.00</u>	<u>2,367.00</u>
<u>d. 50,000 - < 100,000 gpd</u>	<u>2,788.00</u>	<u>2,900.00</u>	<u>2. 50 - < 100 acres</u>	<u>4,551.00</u>	<u>4,734.00</u>
<u>e. 100,000 - < 500,000 gpd</u>	<u>4,780.00</u>	<u>4,972.00</u>	<u>3. 100 - < 500 acres</u>	<u>6,829.00</u>	<u>7,102.00</u>
<u>f. 500,000 - < 1,000,000 gpd</u>	<u>6,770.00</u>	<u>7,042.00</u>	<u>4. 500 acres and greater</u>	<u>9,104.00</u>	<u>9,469.00</u>
<u>g. 1,000,000 - < 2,500,000 gpd</u>	<u>8,763.00</u>	<u>9,114.00</u>	<u>b. Facilities covered under the</u>		
<u>h. 2,500,000 - < 5,000,000 gpd</u>	<u>10,753.00</u>	<u>11,185.00</u>	<u>Industrial Storm Water General Permit</u>	<u>303.00</u>	<u>315.00</u>
<u>i. 5,000,000 gpd and greater</u>	<u>12,744.00</u>	<u>13,255.00</u>	<u>c. Construction activities covered under the Industrial Storm Water General Permit</u>	<u>303.00</u>	<u>315.00</u>
<u>Nonferrous Metals Forming</u>	<u>11,380.00</u>	<u>11,836.00</u>	<u>Textile Mills</u>	<u>45,519.00</u>	<u>47,344.00</u>
<u>Ore Mining</u>			<u>Timber Products</u>		
<u>a. Ore Mining</u>	<u>2,276.00</u>	<u>2,367.00</u>	<u>a. Log Storage</u>	<u>2,276.00</u>	<u>2,367.00</u>
<u>b. Ore mining w/physical concentration processes</u>	<u>4,551.00</u>	<u>4,734.00</u>	<u>b. Veneer</u>	<u>4,551.00</u>	<u>4,734.00</u>
<u>c. Ore mining with physical and chemical concentration processes</u>	<u>18,206.00</u>	<u>18,936.00</u>	<u>c. Sawmills</u>	<u>9,104.00</u>	<u>9,469.00</u>
<u>Organic Chemicals Manufacturing</u>			<u>d. Hardwood, Plywood</u>	<u>15,930.00</u>	<u>16,569.00</u>
<u>a. Fertilizer</u>	<u>11,380.00</u>	<u>11,836.00</u>	<u>e. Wood Preserving</u>	<u>22,759.00</u>	<u>23,671.00</u>
<u>b. Aliphatic</u>	<u>22,759.00</u>	<u>23,671.00</u>	<u>Vegetable/Bulb Washing Facilities</u>		
<u>c. Aromatic</u>	<u>34,139.00</u>	<u>35,508.00</u>	<u>a. < 1,000 gpd</u>	<u>75.00</u>	<u>78.00</u>
<u>Petroleum Refining</u>			<u>b. 1,000 - < 5,000 gpd</u>	<u>151.00</u>	<u>157.00</u>
<u>a. < 10,000 bbls/d</u>	<u>22,759.00</u>	<u>23,671.00</u>	<u>c. 5,000 - < 10,000 gpd</u>	<u>300.00</u>	<u>312.00</u>
<u>b. 10,000 - < 50,000 bbls/d</u>	<u>45,519.00</u>	<u>47,344.00</u>	<u>d. 10,000 - < 20,000 gpd</u>	<u>602.00</u>	<u>627.00</u>
<u>c. 50,000 bbls/d and greater</u>	<u>91,041.00</u>	<u>94,691.00</u>	<u>e. 20,000 and greater</u>	<u>998.00</u>	<u>1,038.00</u>
<u>Photofinishers</u>			<u>Vehicle Maintenance and Freight Transfer</u>		
<u>a. < 1,000 gpd</u>	<u>910.00</u>	<u>947.00</u>	<u>a. < 0.5 acre</u>	<u>2,276.00</u>	<u>2,367.00</u>
<u>b. 1,000 gpd and greater</u>	<u>2,276.00</u>	<u>2,367.00</u>	<u>b. 0.5 - < 1.0 acre</u>	<u>4,551.00</u>	<u>4,734.00</u>
<u>Power and/or Steam Plants</u>			<u>c. 1.0 acre and greater</u>	<u>6,829.00</u>	<u>7,102.00</u>
<u>a. Steam Generation - Nonelectric</u>	<u>4,551.00</u>	<u>4,733.00</u>	<u>Water Plants - Individual Permit Coverage</u>	<u>2,846.00</u>	<u>2,960.00</u>
<u>b. Hydroelectric</u>	<u>4,551.00</u>	<u>4,733.00</u>	<u>Water Plants - General Permit Coverage</u>	<u>1,992.00</u>	<u>2,072.00</u>
<u>c. Nonfossil Fuel</u>	<u>6,829.00</u>	<u>7,102.00</u>	<u>Wineries</u>		
<u>d. Fossil Fuel</u>	<u>18,206.00</u>	<u>18,936.00</u>	<u>a. < 500 gpd</u>	<u>233.00</u>	<u>242.00</u>

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b. 500 - < 750 gpd	466.00	485.00
c. 750 - < 1,000 gpd	931.00	969.00
d. 1,000 - < 2,500 gpd	1,862.00	1,937.00
e. 2,500 - < 5,000 gpd	2,969.00	3,088.00
f. 5,000 gpd and greater	4,075.00	4,239.00

(a) Facilities other than those in the aggregate production, crop preparing, shipyard, or RCRA categories which operate within several fee categories or subcategories shall be charged from that category or subcategory with the highest fee.

~~(b) Facilities with existing fee structures that obtain coverage under a general permit other than the industrial and municipal storm water general permits shall be charged a permit fee equaling 70% of the fee category in which they would otherwise belong.~~

~~(c))~~ The total annual permit fee for a water treatment plant that primarily serves residential customers shall not exceed three dollars per residential equivalent. The number of residential equivalents is determined by dividing the facility's annual gross revenue in the previous calendar year by the annual user charge for a single family residence which uses nine hundred cubic feet of water per month.

~~((d))~~ (c) Crop preparation and aggregate production permittees are required to submit information to the department certifying annual production (calendar year) or unit processes. When required, the information form shall be completed and returned to the department within thirty days after it is mailed to the permittee by the department. Failure to provide this information could result in permit termination.

(i) Information submitted shall bear a certification of correctness and be signed:

(A) In the case of a corporation, by an authorized corporate officer;

(B) In the case of a limited partnership, by an authorized general partner;

(C) In the case of a general partnership, by an authorized partner; or

(D) In the case of a sole proprietorship, by the proprietor.

(ii) The department may verify information submitted and, if it determines that false or inaccurate statements have been made, it may, in addition to taking other actions provided by law, revise both current and previously granted fee determinations.

~~((e))~~ (d) Fees for crop preparers discharging only noncontact cooling water without additives shall pay the lesser of the applicable fee in the crop preparing or noncontact cooling water without additives categories.

~~((f))~~ (e) Where no clear industrial facility category exists for placement of a permittee, the department may elect to place the permittee in a category with dischargers or permittees that contain or use similar properties or processes and/or a category which contains similar permitting complexities to the department.

~~((g))~~ (f) Hazardous waste clean up sites and EPA authorized RCRA corrective action sites with whom the department is commencing cost recovery through chapter 70.105D RCW shall not pay a permit fee under chapter 173-224 WAC until such time as the cost recovery under chapter 70.105D RCW ceases.

~~((h))~~ (g) Any permit holder with the exception of ~~(inactive)~~ nonoperating aggregate operations who has not been in continuous operation within a consecutive eighteen-month period or who commits to not being in operation for a consecutive eighteen-month period or longer can have their permit fee reduced to twenty-five percent of the fee which they would be otherwise assessed. This nonoperating mode must be verified by the appropriate ecology staff. Once operations resume, the permit fee shall be returned to the full amount.

Facilities who commit to the minimum eighteen-month nonoperating mode but go back into operation during the same eighteen-month period will be assessed permit fees as if they were active during the entire period.

~~((i))~~ Fees for inactive aggregate sites that become active will be prorated to reflect the number of days the facility is active during the fiscal year. Facilities that become active more than once in a fiscal year shall pay the full annual fee.

~~((j))~~ (h) Facilities with subcategories based on gallons per day (gpd) shall have their annual permit fee determined by using the maximum daily flow or maximum monthly average permitted flow in gallons per day as specified in the waste discharge permit, whichever is greater.

~~((k))~~ (i) RCRA corrective action sites requiring a waste discharge permit will be assessed a separate permit fee regardless of whether the discharge is authorized by a separate permit or by a modification to an existing permit for a discharge other than that resulting from the corrective action.

(3) MUNICIPAL/DOMESTIC FACILITIES

(a) The annual permit fee for a permit held by a municipality for a domestic wastewater facility issued under RCW 90.48.162 or 90.48.260 is determined as follows:

((i)) Residential Equivalents (RE)	FY 96 Annual Permit Fee	FY 97 Annual Permit Fee
< 250,000	\$1.29 per RE	\$1.35 per RE
> 250,000	.78 per RE	.81 per RE

(i) Residential Equivalents (RE)	FY 98 Annual Permit Fee	FY 99 Annual Permit Fee
< 250,000	\$1.40 per RE	\$1.46 per RE
> 250,000	.84 per RE	.88 per RE

~~((l))~~ (ii) ~~(In addition to the municipal annual permit fee, a biosolids surcharge amounting to five percent of the annual permit fee will also be assessed for municipalities who do not incinerate their sludge.)~~

~~((m))~~ (iii) Municipal storm water permit annual fee for only the entities listed below will be:

((Name of Entity	FY 96 Annual Permit Fee	FY 97 Annual Permit Fee
King County	\$ 23,852.00	\$ 24,913.00
Snohomish County	23,852.00	24,913.00
Pierce County	23,852.00	24,913.00
Tacoma, City of	23,852.00	24,913.00
Seattle, City of	23,852.00	24,913.00
Department of Transportation	23,852.00	24,913.00

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Clark County	23,852.00	24,913.00
Spokane, County	23,852.00	24,913.00))

<u>Name of Entity</u>	<u>FY 98 Annual Permit Fee</u>	<u>FY 99 Annual Permit Fee</u>
King County	\$ 25,922.00	\$ 26,961.00
Snohomish County	25,922.00	26,961.00
Pierce County	25,922.00	26,961.00
Tacoma, City of	25,922.00	26,961.00
Seattle, City of	25,922.00	26,961.00
Department of Transportation	25,922.00	26,961.00
Clark County	25,922.00	26,961.00

Facilities listed in (a)(~~(iii)~~) (ii) of this subsection shall pay an annual fee for fiscal year ~~((1996))~~ 1998 and fiscal year ~~((1997))~~ 1999 regardless of the permit issuance date or the number of municipal storm water permits under which they are covered.

(b) The annual permit fee for each permit issued under RCW 90.48.162 or 90.48.260 that is held by a municipality that holds more than one permit for domestic wastewater facilities and which treats each domestic wastewater facility as a separate accounting entity, (i.e., maintaining separate funds/accounts for each facility, into which revenue received from the users of that facility is deposited and out of which expenditures to pay for the costs of operating, etc., that facility are made) is determined as in (a) of this subsection.

(c) The sum of the annual permit fees for permits held by a municipality that holds more than one permit for domestic wastewater facilities issued under RCW 90.48.162 or 90.48.260 and which does not treat each domestic wastewater facility as a separate accounting entity, (i.e., maintaining separate funds/accounts for each facility, into which revenue received from the users of that facility is deposited and out of which expenditures to pay for the costs of operating, etc., that facility are made) is determined as in (a) of this subsection.

(d) The permit fee for a privately-owned domestic wastewater facility that primarily serves residential customers is determined as in (a) of this subsection. Residential customers are those whose lot, parcel or real estate, or building is primarily used for domestic dwelling purposes.

(e) Permit fees for privately-owned domestic wastewater facilities that do not serve primarily residential customers and for state-owned domestic wastewater facilities are the following:

((Permitted Flows	FY 96 Annual Permit Fee	FY 97 Annual Permit Fee
.1 MGD and Greater	\$5,235.00	\$5,468.00
.05 MGD to < .1 MGD	2,094.00	2,187.00
.0008 MGD to < .05 MGD	1,047.00	1,094.00
< .0008 MGD	314.00	328.00))

<u>Permitted Flows</u>	<u>FY 98 Annual Permit Fee</u>	<u>FY 99 Annual Permit Fee</u>
.1 MGD and Greater	\$5,689.00	\$5,918.00
.05 MGD to < .1 MGD	2,276.00	2,367.00
.0008 MGD to < .05 MGD	1,138.00	1,184.00
< .0008 MGD	341.00	355.00

Privately-owned domestic wastewater facilities shall have their annual permit fee determined by using the maximum daily flow or maximum monthly average permitted flow in million gallons per day, whichever is greater, as specified in the waste discharge permit.

(f) The number of residential equivalents is calculated in the following manner:

(i) If the facility serves only single-family residences, the number of residential equivalents is the number of single-family residences that it served on January 1 of the previous calendar year.

(ii) If the facility serves both single-family residences and other classes of customers, the number of residential equivalents is calculated in the following manner:

(A) Calculation of the number of residential equivalents that the facility serves in its own service area. Subtract from the previous calendar year's gross revenue:

(I) Any amounts received from other municipalities for sewage interception, treatment, collection, or disposal; and

(II) Any user charges received from customers for whom the permit holder pays amounts to other municipalities for sewage treatment or disposal services. Divide the resulting figure by the annual user charge for a single-family residence.

(B) Calculation of the number of residential equivalents that the facility serves in other municipalities which pay amounts to the facility for sewage interception, treatment, collection, or disposal:

(I) Divide any such amounts received from other municipalities during the previous calendar year by the annual user charge for a single-family residence. In this case "annual user charge for a single-family residence" means the annual user charge that the facility charges other municipalities for sewage interception, treatment, collection, or disposal services for a single-family residence. If the facility charges different municipalities differing single-family residential user charges, then the charge used in these calculations must be that which applies to the largest number of single-family residential customers. Alternatively, if the facility charges different municipalities differing single-family residential user charges, the permit holder may divide the amount received from each municipality by the annual user charge that it charges that municipality for a single-family residence and sum the resulting figures.

(II) If the facility does not charge the other municipality on the basis of a charge per single-family residence, the number of residential equivalents in the other municipality is calculated by dividing its previous calendar year's gross revenue by its annual user charge for a single-family residence. If the other municipality does not maintain data on its gross revenue, user charges, and/or the number of single-family residences that it serves, the number of residential equivalents is calculated as in (f)(iv) of this subsection.

(III) If the other municipality serves only single-family residences, the number of residential equivalents may be calculated as in (f)(i) of this subsection.

The sum of the resulting figures is the number of residential equivalents that the facility serves in other municipalities.

(C) The number of residential equivalents is the sum of the number of residential equivalents calculated in (f)(ii)(A) and (B) of this subsection.

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(iii) The annual user charge for a single-family residence is calculated by either of the following methods, at the choice of the permit holder:

(A) The annual user charge for a single-family residence using nine hundred cubic feet of water per month. If users are billed monthly, this is calculated by multiplying by twelve the monthly user charge for a single-family residence using nine hundred cubic feet of water per month. If users are billed bimonthly, the annual user charge is calculated by multiplying by six the bimonthly user charge for a single-family residence using one thousand eight hundred cubic feet of water per two-month period. If the user charge for a single-family residence varies, depending on age, income, location, etc., then the charge used in these calculations must be that which applies to the largest number of single-family residential customers.

(B) The average annual user charge for a single-family residence. This average is calculated by dividing the previous calendar year's gross revenue from provision of sewer services to single-family residences by the number of single-family residences served on January 1 of the previous calendar year. If the user charge for a single-family residence varies, depending on age, income, location, etc., then the gross revenue and number of single-family residences used in making this calculation must be those for all the single-family residential customers.

In either case, (f)(iii)(A) or (B) of this subsection, the permit holder must provide the department with a copy of its complete sewer rate schedule for all classes of customers.

(iv) If a permit holder does not maintain data on its gross revenue, user charges, and/or the number of single-family residences that it serves, and therefore cannot use the methods described in (f)(i) or (ii) of this subsection to calculate the number of residential equivalents that it serves, then the number of residential equivalents that it serves is calculated by dividing the average daily influent flow to its facility for the previous calendar year by two hundred fifty gallons. This average is calculated by summing all the daily flow measurements taken during the previous calendar year and then dividing the resulting sum by the number of days on which flow was measured. Data for this calculation must be taken from the permit holder's discharge monitoring reports. Permit holders using this means of calculating the number of their residential equivalents must submit with their application a complete set of copies of their discharge monitoring reports for the previous calendar year.

(g) Fee calculation procedures for holders of permits for domestic wastewater facilities.

(i) Municipalities holding permits for domestic wastewater facilities issued under RCW 90.48.162 and 90.48.260, and holders of permits for privately-owned domestic wastewater facilities that primarily serve residential customers must complete a form certifying the number of residential equivalents served by their domestic wastewater system. The form must be completed and returned to the department within thirty days after it is mailed to the permit holder by the department. Failure to return the form could result in permit termination. Fees will be calculated in even-numbered fiscal years.

(ii) The form shall bear a certification of correctness and be signed:

(A) In the case of a corporation, by an authorized corporate officer;

(B) In the case of a limited partnership, by an authorized partner;

(C) In the case of a general partnership, by an authorized partner;

(D) In the case of a sole proprietorship, by the proprietor; or

(E) In the case of a municipal or other public facility, by either a ranking elected official or a principal executive officer.

(iii) The department may verify the information contained in the form and, if it determines that the permit holder has made false statements, may, in addition to taking other actions provided by law, revise both current and previously granted fee determinations.

AMENDATORY SECTION (Amending Order 94-21, filed 1/10/96, effective 2/10/96)

WAC 173-224-050 Permit fee computation and payments. (1) The department shall charge permit fees based on the permit fee schedule contained in WAC 173-224-040. The department may charge fees at the beginning of the year to which they apply. The department shall notify permit holders of fee charges by mailing billing statements. Permit fees must be received by the department within forty-five days after the department mails a billing statement. The department may elect to bill permit holders a prorated portion of the annual fee on a monthly, quarterly, or other periodic basis. In cases where a new permit is only in effect for a portion of the fiscal year upon which the annual fee is based, the department shall prorate the fee on a quarterly basis. In addition to other circumstances, this applies where the department terminates a permit upon its determination that an industry which discharges to a municipal sewer system is satisfactorily regulated by a local pretreatment program.

(2) Permit fee computation for individual permits. Computation of permit fees shall begin on the first day of each fiscal year, or in the case of facilities or activities not previously covered by permits, on the issuance date of the permit. In the case of applicants for state waste discharge permits who are deemed to have a temporary permit under RCW 90.48.200, computation shall begin on the sixty-first day after the department accepts a completed application. In the case of NPDES permit holders who submit a new, updated permit application containing information which could change their assigned permit fee, computation and permit fee category reassignment begins upon acceptance of the application by the department. Any facility that obtains permit coverage but fails to operate will still be obligated to pay the annual permit fee assessment until the permit has been terminated by the department. Permits terminated during the fiscal year will have their fees prorated as follows unless it results in an annual fee assessment of less than one hundred dollars. Ecology will not process refunds of one hundred dollars or less:

(a) Permit coverage for up to three months will pay twenty-five percent of the annual permit fee;

(b) Permit coverage for three to six months will pay fifty percent of the annual permit fee;

(c) Permit coverage for six to nine months will pay seventy-five percent of the annual permit fee; and

(d) Permit coverage for nine months or greater will pay one hundred percent of the annual permit fee.

(3) Permit fee computation for general permits. Computation of fees for permittees covered under a general permit (with the exception of permittees (~~covered under the baseline industrial storm water general permit~~)) who have received permit coverage under the general storm water permits for industrial and construction activities and municipal storm water general permit begins at the end of the permit application coverage period, regardless of the date of submission of the notice of intent. Any facility that is an existing operation requiring general permit coverage but that does not apply for a permit during the permit application coverage period will incur fees beginning at the end of the application coverage period. Any facility that obtains permit coverage is obligated to pay the annual permit fee regardless of whether or not the facility has ever operated until the permit has been terminated by the department. Permits terminated during the fiscal year will have their fees prorated as described in subsection (2)(a), (b), (c) and (d) of this section unless it results in an annual fee assessment of less than one hundred dollars. Ecology will not process refunds of one hundred dollars or less.

(4) Permit fees for sand and gravel (aggregate) general permittees will be assessed as in subsection (3) of this section and:

(a) ~~((A mining facility that is active for three months or more during the state fiscal year will be considered active for the full year for fee purposes. A mining facility that is active for less than three months shall be considered inactive for fee calculation purposes.))~~ Nonoperating aggregate sites. A facility conducting mining, screening, washing and/or crushing activities is considered nonoperating for fee purposes if they are conducting these activities for less than ninety cumulative days during a calendar year. A facility producing no asphalt and/or concrete during the calendar year is also considered nonoperating for fee purposes.

(b) Inactive sites that become active for only concrete and/or asphalt production will be assessed a prorated fee for the actual time inactive. For the actual time a concrete and/or asphalt facility is active, fees will be based on total production of concrete and/or asphalt.

(c) Fees for continuously active sites that produce concrete and/or asphalt will be based on the average of the three previous calendar years production totals. Existing facilities must provide the department with the production totals for concrete and/or asphalt produced during the previous three calendar years or for the number of full calendar years of operation if less than three. New facilities with no historical asphalt and/or concrete production data will have their first year fee based on the production levels reported on the notice of intent for coverage under the National Pollutant Discharge Elimination System and State Waste Discharge Permit for Process Water and Storm Water Discharges Associated with Sand and Gravel Operations, Rock Quarries and Similar Mining Facilities including Stockpiles of Mined Materials, Concrete Batch Operations and Asphalt Batch Operations general permit. The second year fee will be determined based on the actual production during the first year and estimated production for the second

year. The third year fee will be determined based on the average of actual production for the first two years and estimated for the third year. Fee calculation for subsequent years will be based on the average production values of previous years.

(5) Fees for crop preparation general permittees will be assessed as in subsection (3) of this section and will be computed on the three previous calendar years production totals. Existing facilities must provide the department with the production totals in the manner described in WAC 173-224-040 (2)(d). New facilities with no historical production data will have their first year fee based on the estimated production level for that year. The second year fee will be determined based on the actual production during the first year and estimated production for the second year. The third year fee will be determined based on the average of actual production for the first two years and estimated for the third year. Fee calculation for subsequent years will be based on the average production values of previous years.

(6) ~~((Permittees covered under the baseline industrial storm water general permit before July 1, 1993, will have their annual permit fees calculated beginning on July 1, 1993. Facilities that are existing operations prior to July 1, 1993, and apply for permit coverage after July 1, 1993, will be assessed the annual permit fee beginning on July 1, 1993. Construction activities receiving coverage under the baseline industrial storm water general permit after July 1, 1993, will be assessed a permit fee beginning upon the permit issuance date.))~~ Facilities with construction and industrial storm water general permit coverage will have their annual permit fees begin on the permit issuance date. Permit fee accrual will continue until the permit has been terminated by the department regardless if the activity covered under the permit has already ceased.

(7) Facilities with an existing NPDES and/or state wastewater discharge permit who also have obtained ~~((coverage under the baseline industrial storm water general permit shall not pay a permit fee for coverage under the baseline industrial storm water general permit))~~ industrial and/or construction storm water general permit coverage shall only pay an annual fee based on the permit with the highest permit fee category assessment.

(8) Computation of fees shall end on the last day of the state's fiscal year, or in the case of a terminated permit, during the quarter the termination took place.

(9) The applicable permit fee shall be paid by check or money order payable to the "Department of Ecology" and mailed to the Wastewater Discharge Permit Fee Program, P.O. Box 5128, Lacey, Washington ~~((98503-0210))~~ 98509-5128.

(10) In the event a check is returned due to insufficient funds, the permit fee shall be deemed to be unpaid.

~~((Penalty due on delinquent accounts. The department may charge permit holders a penalty on fee charges that have not been paid by the due date indicated on the billing statement at the rates of:~~

~~(a) Ten percent of the assessed fee for the first thirty days late;~~

~~(b) Fifteen percent of the assessed fee for between thirty one days late and sixty days late; and~~

~~(c) Twenty five percent of the assessed fee for between sixty one days late and ninety days late.~~

~~Failure to pay fees and penalties after ninety days may result in termination of the permit or the exercise of such other legal or equitable remedies that ecology is authorized to carry out including, but not limited to, the assessment of additional penalties. Civil penalties issued by the department may be sufficiently large to offset the economic benefit gained from nonpayment of fees and to deter continued operation and/or nonpayment. Payment of civil penalties shall not be deemed as payment of fees, nor shall payment of fees after assessment of penalties be deemed as a cause for reducing the penalty. Nothing herein shall be interpreted as restricting the authority of the department to exercise its other enforcement remedies as authorized by law.)~~ Delinquent accounts. Permittees are considered delinquent in the payment of fees if the fees are not received by the first invoice billing due date. The department will notify the delinquent permittee by certified letter of its intent to turn the delinquent account over to a collection agency. Permit holders will have thirty days from receipt of the certified letter to bring the account up-to-date before the department turns it over for collection. Any delinquent account turned over for collection will be assessed a surcharge totaling twenty percent of the delinquent amount owed. The surcharge assessment is to recover the costs for collection. If the collection agency fails to recover the delinquent fees, the department may exercise other legal or equitable remedies including, but not limited to, the assessment of penalties. Civil penalties issued by the department shall not be deemed as payment of fees, nor shall payment of fees after assessment of penalties be deemed as a cause for reducing the penalty. Nothing herein shall be interpreted as restricting the authority of the department to exercise other enforcement remedies as authorized by law.

WSR 98-03-049

**PERMANENT RULES
DEPARTMENT OF
SOCIAL AND HEALTH SERVICES
(Economic Services Administration)**

[Filed January 15, 1998, 4:06 p.m., effective January 28, 1998]

Date of Adoption: January 14, 1998.

Purpose: Updates gross and net monthly income standards used to determine food stamp program eligibility.

Citation of Existing Rules Affected by this Order: Amending WAC 388-49-510.

Statutory Authority for Adoption: RCW 74.04.510.

Other Authority: Food Stamp Act and 7 CFR 273.9(a).

Adopted under notice filed as WSR 97-24-079 on December 2, 1997.

Number of Sections Adopted in Order to Comply with Federal Statute: New 0, amended 1, 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 Request of a Nongovernmental 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.

Other Findings Required by Other Provisions of Law as Precondition to Adoption or Effectiveness of Rule: Action is required by federal statute. Emergency rule expires January 28, 1998.

Effective Date of Rule: January 28, 1998.

January 14, 1998

Merry A. Kogut, Manager
Rules and Policies Assistance Unit

AMENDATORY SECTION (Amending WSR 96-22-104, filed 11/6/96, effective 12/7/96)

WAC 388-49-510 Income eligibility standards. (1) ~~((Categorically eligible))~~ Some households ~~((as described in WAC 388-49-180,))~~ are not subject to ~~((the provisions of))~~ this section, in accordance with the Code of Federal Regulations at 7 CFR 273.9(a).

(2) ~~((The department shall determine eligibility on the basis of gross income and net food stamp income except for households in subsection (3) of this section.~~

(3) ~~The department shall determine eligibility on the basis of net food stamp income for households containing an elderly or disabled member.~~

(4) ~~The ((gross and net monthly maximum)) following income ((standards as established by the department of agriculture are as follows)) amounts are the highest amounts households can have and still be eligible for food stamps:~~

Gross Monthly Income Standard

Household Size	Maximum Standard
1	\$(839) 855
2	((1,123)) 1,150
3	((1,407)) 1,445
4	((1,690)) 1,739
5	((1,974)) 2,034
6	((2,258)) 2,329
7	((2,542)) 2,623
8	((2,826)) 2,918
9	((3,110)) 3,213
10	((3,394)) 3,508
Each additional person	+((284)) 295

Net Monthly Income Standard

Household Size	Maximum Standard
1	\$(645) 658
2	((864)) 885
3	((1,082)) 1,111
4	((1,300)) 1,338
5	((1,519)) 1,565
6	((1,737)) 1,791
7	((1,955)) 2,018
8	((2,174)) 2,245

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9	((2,393)) 2,472
10	((2,612)) 2,699
Each additional person	+ ((219)) 227

~~((The employee shall be given no less than three working days to select an option, if available, or to elect to be laid off and/or be placed on the appropriate institution wide layoff list(s).))~~ Such written notice shall be furnished directly to the employee during his/her scheduled working hours or mailed by certified letter to the employee's last known address because the employee is not available for personal service. If the notification is furnished directly to the employee, the day it is furnished shall not be counted as a day of notice. If the notification is mailed, the day of mailing shall not be counted as a day of notice, and the notice shall be considered to be received the day after it is postmarked. If the notification is mailed, the employee shall be given no less than five working days in which to select placement on the layoff list(s) and/or an option in lieu of layoff.

WSR 98-03-051
PERMANENT RULES
PERSONNEL RESOURCES BOARD

[Filed January 16, 1998, 9:43 a.m., effective March 1, 1998]

Date of Adoption: January 8, 1998.

Purpose: This modification revises and clarifies current practice that is used to notify employees of their layoff options and effective dates.

Citation of Existing Rules Affected by this Order: Amending WAC 251-10-030.

Statutory Authority for Adoption: RCW 41.06.150.

Adopted under notice filed as WSR 97-24-039 on November 26, 1997.

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 Request of a Nongovernmental 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 1, repealed 0.

Effective Date of Rule: March 1, 1998.

January 14, 1998

Dennis Karras
Secretary

AMENDATORY SECTION (Amending WSR 96-13-028 [96-13-078], filed 6/18/96, effective 8/1/96)

WAC 251-10-030 Layoff. (1) An appointing authority may layoff or reduce the number of working hours or the work year of an employee without prejudice because of lack of funds or lack of work and/or for good faith reorganization for efficiency purposes.

(2) Each institution shall develop for approval by the director a layoff procedure based upon layoff seniority as defined in WAC 251-01-245, to include as a minimum:

(a) Clearly defined layoff unit(s), in order to minimize the disruption of an institution's total operation, and

(b) Provision for veterans preference for eligible veterans and their unmarried widows/widowers as defined in WAC 251-10-045.

(3) A permanent status employee ~~((scheduled for layoff shall receive))~~ shall receive at least 20 calendar days written notice of ((any available options in lieu of)) layoff, including no less than three working days in which to select placement on layoff list(s) and/or an option in lieu of layoff as provided in subsections ((4)) (4) and ((5)) (5) of this section.

~~((4))~~ Written notice of at least fifteen calendar days must be given to the employee after he/she has selected one of the options or upon completion of the option period.

~~((5))~~ (4) Within the layoff unit, a permanent status employee scheduled for layoff shall be offered employment options to position(s):

(a) For which he/she meets any specific position requirements;

(b) Which are comparable, as determined by the personnel officer; and

(c) Which are in:

(i) Class(es) in which the employee has held permanent status which have the same or lower salary range maximum as the current class;

(ii) Lower class(es) in those same class series for which the employee is qualified.

The employee may exercise either option subsection ~~((5))~~ (4)(c)(i) or (ii) of this section provided that the employee being replaced is the least senior in a comparable position in the class and has less layoff seniority than the employee replacing him/her. A vacant position, if available, should be considered to be the position in the class held by the least senior person. The employee may elect to have access to less-than-comparable positions by so notifying the personnel officer in writing.

~~((6))~~ (5) Except as provided in WAC 251-10-035, a permanent employee scheduled for layoff who has no options available under subsection ~~((5))~~ (4) of this section shall be offered position(s) as follows:

(a) The personnel officer will offer in writing not less than three positions from among the highest available classes (unless the total available is less than three); provided that any position(s) offered must be:

(i) At the same level or lower than the class from which the employee is being laid off; and

(ii) Vacant or held by a provisional, temporary, or probationary employee; and

(iii) In a class for which the employee being laid off meets the minimum qualifications and can pass the appropriate qualifying examination.

(b) The employee will be required to indicate within three working days his/her interest in a specific class(es) so that the personnel officer may schedule the appropriate examination(s).

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(c) Upon satisfactory completion of the examination(s) the employee will be offered option(s) to specific position(s), including salary information.

(d) Employees appointed to positions through provisions of this subsection will be required to serve a trial service period.

~~((7))~~ (6) In order to be offered a layoff option or return from layoff to a position for which specific position requirements have been documented in accordance with WAC 251-18-255(1), the employee must demonstrate a satisfactory level of knowledge, skill, or ability on the specific position requirements.

~~((8))~~ (7) In a layoff action involving a position for which a particular sex is a bona fide occupational requirement, as approved by the Washington state human rights commission, the most senior employee meeting the occupational requirements may be retained in the position over more senior employees in such class who do not meet the occupational requirement.

~~((9))~~ (8) When it is determined that layoffs will occur within a unit, the personnel officer will:

(a) Provide a copy of the institution's reduction in force procedure to all employees subject to layoff;

(b) Advise each employee in writing of available options in lieu of layoff;

(c) Advise each employee in writing of the specific layoff list(s) upon which he/she may be placed as required per WAC 251-10-055 and 251-10-035;

(d) Provide information about the process by which the employee may make application for state-wide layoff lists, as required per WAC 251-10-060(7);

(e) Advise each employee in writing of the right to appeal his/her layoff to the board per WAC 251-12-080.

~~((10))~~ (9) Layoff actions for employees of special employment programs as identified in WAC 251-19-150 shall be administered as provided in WAC 251-10-035.

Reviser's note: The bracketed material preceding the section above was supplied by the code reviser's office.

WSR 98-03-052

PERMANENT RULES

PERSONNEL RESOURCES BOARD

[Filed January 16, 1998, 9:45 a.m., effective March 1, 1998]

Date of Adoption: January 8, 1998.

Purpose: This rule describes when employees are eligible to receive shift premium. This modification is for clarification to reflect current practice and board intent and define regularly scheduled.

Citation of Existing Rules Affected by this Order: Amending WAC 356-15-060.

Statutory Authority for Adoption: RCW 41.06.150.

Adopted under notice filed as WSR 97-24-042 on November 26, 1997.

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 Request of a Nongovernmental 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 1, repealed 0.

Effective Date of Rule: March 1, 1998.

January 14, 1998

Dennis Karras

Secretary

AMENDATORY SECTION (Amending WSR 96-13-075, filed 6/18/96, effective 8/1/96)

WAC 356-15-060 Shift premium provisions and compensation. (1) Basic shift premium shall be paid in the amount specified in WAC 356-15-061. For purposes of this section, regularly scheduled means the permanently assigned work schedule/work shift, not including overtime hours, as determined by the agency.

(2) For purposes of this section, evening shift is defined as a work shift of eight or more hours which ends at or after 10:00 p.m. Night shift is defined as a work shift of eight or more hours which begins by 3:00 a.m.

(3) Full time employees shall be entitled to basic shift premium under the following circumstances:

(a) ~~((Employees whose assigned hours consist entirely of evening and/or night shifts are entitled to shift premium for all hours of their scheduled evening and/or night shifts and for all additional hours which are worked and compensated.))~~ Regularly scheduled evening and night shift employees are entitled to shift premium for all hours worked.

(b) ~~Employees are entitled to shift premium for all regularly scheduled work shift hours after 6 p.m. or before 6 a.m.)~~ Regularly scheduled day shift employees are not entitled to shift premium unless:

(i) The employee's regular or temporary scheduled work shift includes hours after 6:00 p.m. and before 6:00 a.m. where no overtime, schedule change pay, or call-back compensation is received. Shift premium is paid only for those hours actually worked after 6:00 p.m. and before 6:00 a.m.

(ii) The employee is temporarily assigned a full evening or night shift where no overtime, schedule change pay, or call-back compensation is received. Shift premium is paid only for all evening or night-shift hours worked in this circumstance.

(c) ~~((Employees assigned to work at least one, but not all, night and/or evening shifts, are entitled to shift premium for those scheduled evening or night shifts, and for all additional hours which are worked and compensated.))~~ Employees regularly scheduled to work at least one, but not all, evening and/or night shifts are entitled to shift premium for those shifts. Additionally, these employees are entitled to shift premium for all hours adjoining that evening or night shift which are worked.

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(4) Part-time and intermittent employees shall be entitled to basic shift premium under the following circumstances:

(a) For all assigned hours of work after 6:00 p.m. and before 6:00 a.m.

(b) For assigned full evening or night (or evening) shifts, as defined in subsection (2) of this section.

(5) Employees on contingency schedules do not normally receive shift premium with the exception noted in WAC 356-15-090.

~~((5))~~ (6) **Monthly shift premium rates:** In cases where shift premium hours are regularly scheduled over a year, agencies may pay shift premium at a monthly rate which is equal for all months of the year. Such monthly rates shall be calculated by dividing twelve into the amount of shift premium an employee would earn in a year if the hourly rules in subsection (2) of this section were applied. This option is granted to simplify bookkeeping and is not authorized to establish shift premium rates higher or lower than those set by the board.

~~((6))~~ (7) **Shift premium and overtime:** When an employee is compensated for working overtime during hours for which shift premium is authorized in this section, the overtime rate shall be calculated using the "regular rate" as defined in WAC 356-05-353.

~~((7))~~ (8) **Payment during leave and for holidays not scheduled to work:** Employees eligible for shift premium for their regularly scheduled shifts will receive the same proportion of shift premium for respective periods of authorized paid leave and for holidays not worked which fall within their ~~((usual))~~ regularly scheduled shift.

Reviser's note: The typographical error in the above section occurred in the copy filed by the agency and appears in the Register pursuant to the requirements of RCW 34.08.040.

WSR 98-03-055
PERMANENT RULES
DEPARTMENT OF LICENSING
(Business and Professions Division)
(Master License Service)
[Filed January 16, 1998, 2:00 p.m.]

Date of Adoption: January 16, 1998.

Purpose: Adoption of rules implementing SSB 5483 (chapter 391, Laws of 1997), licensing whitewater river outfitters.

Citation of Existing Rules Affected by this Order: Repealing WAC 308-300-310.

Statutory Authority for Adoption: RCW 88.12.276 (section 9, chapter 391, Laws of 1997).

Adopted under supplemental notice filed as WSR 97-24-104 on December 3, 1997, which was a supplement to the original notice filed as WSR 97-21-150 on October 22, 1997.

Changes Other than Editing from Proposed to Adopted Version: The proposed version contained WAC 308-312-090 dealing with the transition during January 1998. Since the permanent rules will not be effective until after January 1998 that section has been withdrawn (transition was addressed in emergency rules).

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 8, amended 0, repealed 1.

Number of Sections Adopted at Request of a Nongovernmental 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 8, 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 8, amended 0, repealed 1.

Effective Date of Rule: Thirty-one days after filing.
January 16, 1998
Nell Benzschawel
Administrator

Chapter 308-312 WAC
WHITEWATER RIVER OUTFITTERS

NEW SECTION

WAC 308-312-010 Definitions. The following definitions apply to use of these terms in this chapter.

(1) "Business location" means a business office of a whitewater river outfitter. This is a fixed location where business may be conducted with the public and that must post a master license showing "tax registration". It does not mean where river trips take place.

(2) "Master application" means the combined license application form and any addenda provided by the master license service.

(3) "Master license" means the combined license document issued by the master license service.

(4) "Master license service" means the office within the department of licensing operating the master license program, and handling the whitewater river outfitter license.

(5) "Outfitter" means the same as whitewater river outfitter.

(6) "Proof of liability insurance" means the certificate of insurance or other written proof supplied by an insurance provider. The proof lists and guarantees the type and amount of insurance coverage provided and the period of time the coverage is in force.

NEW SECTION

WAC 308-312-020 Whitewater river outfitter license administration office. The master license service of the department of licensing handles the whitewater river outfitter license. The office is located at 405 Black Lake Blvd. S.W., Olympia, Washington. Office hours are 8:00 a.m. to 5:00 p.m., Monday through Friday, excluding state holidays. The office can be contacted by mail or phone at:

Department of Licensing
Master License Service (360) 664-1400
Post Office Box 9034 Fax (360) 753-9668
Olympia WA 98507-9034 TDD (360) 586-2788

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NEW SECTION

WAC 308-312-030 Applying for a whitewater river outfitter license. (1) To apply for a license a person must request and file a master application with the master license service. The completed master application must include the information, proof of insurance and certifications listed in RCW 88.12.275 and the fee listed in WAC 308-312-060.

(2) A master license with "whitewater river outfitter" printed on it will be issued after the application has been reviewed and approved. The license application will not be approved and no license will be issued if all the requirements are not met.

(3) Each business location where whitewater river outfitter business is conducted must be licensed even if owned by the same business owner. A separate application must be completed and filed for each business location. Each business location will receive its own master license.

NEW SECTION

WAC 308-312-040 Renewing a whitewater river outfitter license. (1) The whitewater river outfitter license must be renewed each year by the expiration date. The master license does not allow conducting business as a whitewater river outfitter after the expiration date shown on the license. A renewal must be filed for each business location.

(2) The master license service will mail a renewal notice to each business location at least 30 days before the license expiration date. The licensee must submit the completed renewal application by the expiration date or the late renewal fee listed in RCW 19.02.085 may be charged.

(3) The completed renewal application must include the information and certifications listed in RCW 88.12.275, and the fee listed in WAC 308-312-060. The whitewater river outfitter license will not be renewed if all the requirements are not met.

(4) If a license renewal has not been filed by at least 4 months after the expiration date the license will be considered to have been abandoned and the license status will be terminated. A licensee whose outfitter license has been terminated because of nonrenewal must file a new application as described in WAC 308-312-030 in order to conduct business as a whitewater river outfitter.

NEW SECTION

WAC 308-312-050 Proof of liability insurance. (1) Applicants and licensees must provide proof of having liability insurance coverage to the master license service. The proof of insurance must show the applicant or licensee as the insured, and list the Master License Service as the certificate holder to be notified of changes. Changes to be reported include cancellation, termination, nonrenewal, and renewal of a policy. Cancellation, termination, or nonrenewal of a policy must be reported to the Master License Service at least 30 days before the effective date.

(2) The liability insurance policy may cover outfitter business activities at all locations within the state of Washington. A separate copy of the proof of current liability insurance must accompany each new application for a whitewater river outfitter license.

NEW SECTION

WAC 308-312-060 Fees. (1) The following fees apply to the whitewater river outfitter license

(a) New application, \$25.00 per business location.

(b) Annual renewal, \$25.00 per business location.

(2) New and renewal applications are charged the application handling fee listed in RCW 19.02.075.

Delinquent renewal applications may be charged the delinquency fee listed in RCW 19.02.085.

NEW SECTION

WAC 308-312-080 Appeals of license suspensions. A whitewater river outfitter licensee may appeal a license suspension by submitting a written notice of appeal to the department of licensing. The notice of appeal must be received by the department of licensing within twenty days after the date the suspension is issued or the right to appeal is waived. If the notice is mailed the United States post office postmark date will be accepted as the date received by the department of licensing. The department of licensing will take action on the notice as directed by the Administrative Procedure Act found in RCW 34.05.

NEW SECTION

WAC 308-312-100 Proof of having a license. Persons conducting a whitewater river trip must be able to show proof of operating with a valid outfitter license to law enforcement officials. Proof of having a license must be available at the site where vessels are put into the river, or at the site where vessels are taken out of the river. The proof of having a license is not required to be carried on vessels during a river trip. A photocopy of the original master license that was issued with "whitewater river outfitter" printed on it will be accepted as proof of having a license.

REPEALER

The following section of the Washington Administrative Code is repealed:

WAC 308-300-310 Fee for whitewater river for-hire registration.

WSR 98-03-073

PERMANENT RULES

DEPARTMENT OF ECOLOGY

[Order 97-33—Filed January 21, 1998, 9:38 a.m.]

Date of Adoption: January 17, 1998.

Purpose: To repeal unnecessary WAC chapters due to the merger of the Office of Marine Safety with the Department of Ecology.

Citation of Existing Rules Affected by this Order: Repealing chapters 317-01, 317-02, and 317-03 WAC.

Adopted under preproposal statement of inquiry filed as WSR 97-20-047 on September 24, 1997.

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 Request of a Nongovernmental Entity: New 0, amended 0, repealed 0.

Number of Sections Adopted on the Agency's own Initiative: New 0, amended 0, repealed 17.

Number of Sections Adopted in Order to Clarify, Streamline, or Reform Agency Procedures: New 0, amended 0, repealed 17.

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.

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

January 17, 1998

Tom Fitzsimmons
Director

WSR 98-03-075

PERMANENT RULES

LOTTERY COMMISSION

[Filed January 21, 1998, 9:53 a.m.]

Date of Adoption: January 16, 1998.

Purpose: Establishes game play rules and criteria for determining winners of Instant Game Nos. 215, 216 and 217; and amends WAC 315-11A-207 to change the price of the ticket, the prizes available, and the manner of selecting winning tickets.

Citation of Existing Rules Affected by this Order: Amending WAC 315-11A-207.

Statutory Authority for Adoption: RCW 67.70.040.

Adopted under notice filed as WSR 97-24-074 on December 2, 1997.

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 Request of a Nongovernmental Entity: New 0, amended 0, repealed 0.

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

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

January 20, 1998

Mary Jane Ferguson
Rules Coordinator

NEW SECTION

WAC 315-11A-215 Instant Game Number 215. (1) **Essential game elements** shall appear as set forth in the executed working papers for Instant Game Number 215, on file at the lottery headquarters office.

(2) **Price per ticket:** Two dollars.

(3) **Prizes available:** \$1, \$2, \$3, \$4, \$5, \$10, \$15, \$100, \$500, \$1,000, \$2,000, and \$15,000. Players may win more than one prize per ticket.

(4) **Manner of selecting winning tickets:** Match your play symbols to the winning play symbols. Uncover the lottery's logo in the bonus box to win \$15 instantly.

NEW SECTION

WAC 315-11A-216 Instant Game Number 216. (1) **Essential game elements** shall appear as set forth in the executed working papers for Instant Game Number 216, on file at the lottery headquarters office.

(2) **Price per ticket:** One dollar.

(3) **Prizes available:** \$1, \$2, \$3, \$5, \$10, \$50, \$500, \$1,000, \$2,000, and \$5,000. Players may win more than one prize per ticket.

(4) **Manner of selecting winning tickets:** Match your play symbols to the winning play symbol.

NEW SECTION

WAC 315-11A-217 Instant Game Number 217. (1) **Essential game elements** shall appear as set forth in the executed working papers for Instant Game Number 217, on file at the lottery headquarters office.

(2) **Price per ticket:** One dollar.

(3) **Prizes available:** \$1, \$2, \$3, \$5, \$10, \$50, \$300, and \$1,000. Players may win more than one prize per ticket.

(4) **Manner of selecting winning tickets:** Match your play symbols to the winning play symbols.

AMENDATORY SECTION (Amending WSR 97-20-052, filed 9/24/97, effective 10/25/97)

WAC 315-11A-207 Instant Game Number 207. (1) **Essential game elements** shall appear as set forth in the executed working papers for Instant Game Number 207, on file at the lottery headquarters office.

(2) **Price per ticket:** ~~((Three))~~ Two dollars.

(3) **Prizes available:** \$1, \$2, \$3, ~~\$4~~, \$5, ~~((6, \$10, \$15, \$20, \$25, \$30))~~ \$8, \$50, \$500, ~~((1,500, \$3,000))~~ \$1,000, \$5,000, and \$10,000. Players may win more than one prize per ticket.

(4) **Manner of selecting winning tickets:** ~~((The sum of the yards within a game totals 10 or more. Uncover the word "Touchdown" in the Bonus Play to win \$25 instantly.))~~ Match any of the "Your Numbers" to the "Winning Numbers."

WSR 98-03-089

PERMANENT RULES

DEPARTMENT OF AGRICULTURE

[Filed January 21, 1998, 11:45 a.m.]

Date of Adoption: January 21, 1998.

Purpose: This amendment to current rule will clarify language, require independent sanitation consultants to reapply every other year so that list remains current, clarify appeal procedures, clarify minimum reporting requirements and reporting by sanitation consultants.

Citation of Existing Rules Affected by this Order:
Amending WAC 16-168-010 to 16-168-100.

Statutory Authority for Adoption: RCW 69.10.055.

Adopted under notice filed as WSR 97-24-073 on
December 2, 1997.

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 Request of a Nongov-
ernmental Entity: New 0, amended 0, repealed 0.

Number of Sections Adopted on the Agency's own
Initiative: New 1, amended 10, repealed 0.

Number of Sections Adopted in Order to Clarify,
Streamline, or Reform Agency Procedures: New 1, amended
10, 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 1, amended 10, repealed 0.

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

January 21, 1988

Jim Jesernig

Director

AMENDATORY SECTION (Amending Order 5093, filed
4/10/96, effective 5/11/96)

WAC 16-168-010 Independent sanitation consultants—What is the purpose of ~~((this))~~ these rules? ~~((These rules set minimum qualifications for independent sanitation consultants for food storage warehouses.))~~ The purpose of WAC 16-168-010 through 16-168-090 is to establish minimum qualifications, application approval procedures, list maintenance and reporting requirements for independent sanitation consultants.

AMENDATORY SECTION (Amending Order 5093, filed
4/10/96, effective 5/11/96)

WAC 16-168-020 Independent sanitation consultants—Where does the department get authority to establish these rules? The department is given authority under RCW 69.10.055 for promulgating these rules.

AMENDATORY SECTION (Amending Order 5093, filed
4/10/96, effective 5/11/96)

WAC 16-168-030 Independent sanitation consultants—Where can I find the definitions for terms used in this rule? ~~((1) Chapter 69.10 RCW.~~

~~((2) Chapter 69.04 RCW.))~~ The definitions for terms used in this chapter may be found in chapters 69.04 and 69.10 RCW and WAC 16-167-050 (2)(k). For the purposes of this chapter, the term "we" means department as defined in chapter 69.10 RCW.

AMENDATORY SECTION (Amending Order 5093, filed
4/10/96, effective 5/11/96)

WAC 16-168-040 How is independent sanitation consultant ~~((for food storage warehouses))~~ defined in RCW 69.10.005(5)? The definition for independent sanita-

tion consultants found in RCW 69.10.005(5) states: "Independent sanitation consultant" means an individual, partnership, cooperative, or corporation that by reason of education, certification, and experience has satisfactorily demonstrated expertise in food and dairy sanitation and is approved by the director to advise on such areas including, but not limited to: Principles of cleaning and sanitizing food processing plants and equipment; rodent, insect, bird, and other pest control; ~~((principals [principles]))~~ principles of hazard analysis critical control point; basic food product labeling; principles of proper food storage and protection; proper personnel work practices and attire; sanitary design, construction, and installation of food plant facilities, equipment, and utensils; and other pertinent food safety issues."

AMENDATORY SECTION (Amending Order 5093, filed
4/10/96, effective 5/11/96)

WAC 16-168-050 What are the minimum qualifications for an ~~((approved))~~ independent sanitation consultant ~~((for warehouses))~~? The minimum qualifications for an independent sanitation consultant are:

Education and experience:

(1) A bachelor's degree in biology, chemistry, microbiology, food science, dairy science or a related natural science plus three years experience inspecting food storage warehouses or similar operations for compliance with the Current Good Manufacturing Regulations, 21 CFR part 110 (GMPs); or

(2) Three years of college completed with study in the above subjects plus five years experience inspecting food storage warehouses or similar operations for compliance with the GMPs; or

(3) Two years of college completed with study in the above subjects plus seven years experience inspecting food storage warehouses or similar operations for compliance with the GMPs; or

(4) Eight years experience inspecting food storage warehouses or similar operations for compliance with the GMPs plus verifiable training in pest control, cleaning practices, food storage warehouse inspection or application of the GMPs.

AMENDATORY SECTION (Amending Order 5093, filed
4/10/96, effective 5/11/96)

WAC 16-168-060 How do I apply for approval as an independent sanitation consultant? The steps in applying for approval as an independent sanitation consultant are:

(1) Obtain an application from the department.

(2) Complete the application, listing your qualifications.

(3) Each applicant must sign the application and have ~~((their))~~ his/her signature notarized.

(4) Return the application to the address ~~((listed))~~ on the application.

AMENDATORY SECTION (Amending Order 5093, filed
4/10/96, effective 5/11/96)

WAC 16-168-070 How will I know if my application for independent sanitation consultant was approved? ~~((If you are successful, you will receive a card identifying you as an approved independent sanitation consultant for food~~

~~storage warehouses. Your name will also appear on a list of approved independent sanitation consultants for food storage warehouses available on request from the department.~~

~~The department will notify applicants who don't meet minimum qualifications or who submit incomplete applications within twenty one working days in writing.)~~ **On approval of your application for independent sanitation consultant, we will send you an identification card and place your name on a list of approved independent sanitation consultants that is available on request from the department.**

If we are not able to approve your application for independent sanitation consultant, we will notify you and tell you why within twenty-five working days after receiving the application.

NEW SECTION

WAC 16-168-075 How long will I stay on the list of independent sanitation consultants? Your name will stay on the list of approved independent sanitation consultants as long as you continue to indicate that you wish to remain on the list. The department will mail out information requests by April 1 of each even-numbered year to all approved independent sanitation consultants.

If you want to remain on the list, fill out the request with your current information, indicate that you want to remain on the list and return it to the department no later than May 1.

If you do not want to remain on the list, you can return the request indicating you no longer wish to be listed as an approved independent sanitation consultant by May 1. If you do not return the request your name will also be removed from the list.

It is the responsibility of the independent sanitation consultants to notify the department of address changes. If we are unable to locate you at the address or telephone number listed with us, we will remove your name from the list.

Your name will return to the list upon receipt of your request and new information.

AMENDATORY SECTION (Amending Order 5093, filed 4/10/96, effective 5/11/96)

WAC 16-168-080 What would cause the department to deny or withdraw approval of my application for approved independent sanitation consultant? The department may withdraw or deny approval ~~((t))~~ of independent sanitation consultants or applicants under the following circumstances:

(1) For failing to meet the minimum qualifications in WAC 16-168-050.

(2) For knowingly making false or inaccurate statements regarding qualifications on an application.

((2)) (3) For failing to accurately report violative conditions present in food storage warehouse at the time of inspection.

((3)) (4) For knowingly making or acquiescing in false or inaccurate statements on inspection reports as to the date of the inspection, findings, corrective actions taken, or any other statement material to the compliance status of a warehouse.

AMENDATORY SECTION (Amending Order 5093, filed 4/10/96, effective 5/11/96)

WAC 16-168-090 Do I have a right to appeal denial of my application or withdrawal of my approved status as an independent sanitation consultant? **Yes, you have ((rights of appeal within twenty days of notice of such action under chapter 34.05 RCW, the Administrative Procedure Act)) a right to appeal denial of approval or withdrawal of approval as an independent sanitation consultant under provisions of chapter 34.05 RCW, the Administrative Procedure Act and chapter 16-08 WAC, the department's practice and procedure rules.**

AMENDATORY SECTION (Amending Order 5093, filed 4/10/96, effective 5/11/96)

WAC 16-168-100 What are the reporting requirements for food storage warehouse inspections made by independent sanitation consultants ((for food storage warehouses))? ((Reporting must be adequate to reflect the level of compliance with the GMPs.)) **You can meet reporting requirements for independent sanitation consultants by using a standard food storage warehouse inspection form provided by the department or by using your own form if it covers and indicates visual inspection of at least the following points:**

STORAGE CONDITIONS

- 1. Are incoming lots examined visually for damage or contamination prior to placement in storage?**
- 2. Are food products stored off the floor and away from walls?**
- 3. Does firm maintain a morgue area for damaged and returned goods, sufficiently away from main storage area?**
- 4. Are morgue items disposed of in a proper and timely manner to prevent a source of pest breeding and harborage?**
- 5. Are fertilizers, toxic chemicals, and other potential adulterants adequately separated from human food storage areas?**
- 6. Are rodenticides and insecticides properly used and stored?**
- 7. Are refrigerated storage and frozen storage maintained at proper temperatures, 45 degrees or less?**
- 8. Are cold storage units equipped with suitable thermometers?**
- 9. Is storage area free of evidence of current insect, rodent, bird, etc., activity?**

BUILDING AND GROUNDS

- 1. Are outside premises free from spillage, trash, etc., which may attract or harbor rodents or other pests?**
- 2. Is adequate drainage provided to avoid contamination of facilities and products?**
- 3. Is the building of suitable construction and generally in good physical repair?**
- 4. Are floors, walls and ceilings constructed of easily cleanable materials and kept clean?**
- 5. Are doors, windows and other openings protected to eliminate entry by insects, rodents and other pests? Are**

open windows screened and are loading doors kept closed when not in use?

- 6. Is interior lighting sufficient to allow adequate inspection and cleaning of premises?
- 7. Are food products and processing areas protected against contamination from breakage of light bulbs and other glass fixtures?
- 8. Does firm have a scheduled cleaning and pest control program, including at least weekly inspection by qualified employees?

SANITARY OPERATIONS

- 1. Is cleaning of facilities done in such a manner as to avoid contamination of food products?
- 2. Are detergents, sanitizers, hazardous materials and other supplies used in a safe and effective manner?
- 3. Are cleaning compounds and hazardous materials kept in original containers, stored separate from food products?
- 4. Is all refuse properly stored and protected where necessary from insects, rodents and other pests and disposed of in an adequate manner?

TOILETS, DRESSING ROOMS AND EMPLOYEES

- 1. Are toilets and dressing rooms in good repair, clean, properly ventilated and adequately separated from storage areas?
- 2. Are handwashing facilities clean and supplied with soap, hot water and sanitary towels?

WSR 98-03-096
PERMANENT RULES
STATE BOARD OF HEALTH
 [Filed January 21, 1998, 11:58 a.m.]

Date of Adoption: December 10, 1997.

Purpose: Adopt federal Food and Drug Administration (FDA) seafood hazard analysis critical control point (HACCP) regulations by reference into WAC 246-282-005.

Citation of Existing Rules Affected by this Order: Amending WAC 246-282-005.

Statutory Authority for Adoption: RCW 69.30.030.

Adopted under notice filed as WSR 97-21-138 on October 22, 1997.

Changes Other than Editing from Proposed to Adopted Version: Added language to clarify that the more stringent provision applies when inconsistencies exist in the regulations.

Number of Sections Adopted in Order to Comply with Federal Statute: New 0, amended 0, 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 Request of a Nongovernmental 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.

Effective Date of Rule: Thirty-one days after filing.
January 16, 1998

S. I. Beck
Executive Director

AMENDATORY SECTION (Amending WSR 96-18-096, filed 9/4/96, effective 10/5/96)

WAC 246-282-005 Minimum performance standards. (1) Every person engaged in a shellfish operation shall comply with and shall be subject to:

(a) The "satisfactory compliance" standards of the 1995 revision of the National Shellfish Sanitation Program (NSSP) Manual of Operations Part I and II, published by the United States Department of Health and Human Services, Public Health Service, Food and Drug Administration. Copies can be obtained through the U.S. Food and Drug Administration, Shellfish Sanitation Branch, and the Washington state department of health, office of shellfish programs.

(b) The provisions of 21 CFR, Part 123 - Fish and Fishery Products, adopted December 18, 1995, by the United States Food and Drug Administration, regarding Hazard Analysis Critical Control Point (HACCP) plans. Copies can be obtained through the U.S. Food and Drug Administration, Office of Seafood, and the Washington state department of health, office of shellfish programs.

(c) All other provisions of this chapter.

(2) Where a "satisfactory compliance" provision or a provision of 21 CFR, Part 123, is inconsistent with a provision otherwise established under this chapter or other state law or rule, the more stringent provision, as determined by the department, shall apply.

PERMANENT



WSR 98-03-001
EMERGENCY RULES
DEPARTMENT OF
FISH AND WILDLIFE

[Order 98-05—Filed January 7, 1998, 3:32 p.m.]

Date of Adoption: January 7, 1998.

Purpose: Commercial fishing regulations.

Citation of Existing Rules Affected by this Order:

Repealing WAC 220-52-07300W; and amending WAC 220-52-073.

Statutory Authority for Adoption: RCW 75.08.080.

Under RCW 34.05.350 the agency for good cause finds that immediate adoption, amendment, or repeal of a rule is necessary for the preservation of the public health, safety, or general welfare, and that observing the time requirements of notice and opportunity to comment upon adoption of a permanent rule would be contrary to the public interest.

Reasons for this Finding: Harvestable amounts of red and green sea urchins exist in the areas described. Prohibition of all diving within two days of scheduled sea urchin openings discourages the practice of fishing on closed days and hiding the unlawful catch underwater until the legal opening. There is insufficient time to promulgate permanent rules.

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 Request of a Nongovernmental Entity: New 0, amended 0, repealed 0.

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

Effective Date of Rule: Immediately.

January 8 [7], 1998

Elyse Kane
 for Bern Shanks
 Director

NEW SECTION

WAC 220-52-07300X Sea urchins Notwithstanding the provisions of WAC 220-52-073, effective immediately until further notice it is unlawful to take or possess sea urchins taken for commercial purposes except as provided for in this section:

(1) Red sea urchins: Sea Urchin Districts 1, 2, and 4 are open only on January 12 and 13, 1998. It is unlawful to harvest red sea urchins larger or smaller than the following size (size in diameter exclusive of the spines):

(a) Districts 1 and 2 - 4.0 minimum to 5.5 maximum inches.

(b) District 4 - 3.25 minimum to 5.0 maximum inches.

(2) Green sea urchins: Sea Urchin Districts 1, 2, 3, 4, and Marine Fish/Shellfish Management and Catch Reporting

Areas 24A, 24B, 24C, 24D, are open only on January 12 and 13, 1998. The minimum size for green sea urchins is 2.25 inches in diameter exclusive of the spines.

(3) Sea Urchin Districts:

(a) Sea Urchin District 1 (Northern San Juan Islands) is defined as Marine Fish-Shellfish Management and Catch Reporting Areas 20A, 20B, and those waters of Area 22A north of a line projected east-west one-quarter mile north of Lime Kiln Light on San Juan Island and west of a line projected true north from Limestone Point on San Juan Island.

(b) Sea Urchin District 2 (Southern San Juans and Port Townsend) is defined as those waters of Marine Fish/Shellfish Management and Catch Reporting Area 22A south of a line projected east-west one-quarter mile north of Lime Kiln Light on San Juan Island and east of a line projected true north from Limestone Point on San Juan Island, and Areas 21A, 21B, 22B, 23A, 23B, 25A, and 25B. The following areas within Sea Urchin District 2 are closed to the harvest of sea urchins at all times.

(i) Those waters of Haro Strait north of a line projected east-west one-half mile south of Eagle Point on San Juan Island and south of a line projected east-west one-quarter mile north of Lime Kiln Light on San Juan Island.

(ii) Those waters of San Juan Channel and Upright Channel within the following lines: north of a line from Cattle Point on San Juan Island to Davis Point on Lopez Island, south of a line projected from Flat Point on Lopez Island true west to Shaw Island, west of a line from Neck Point on Shaw Island to Steep Point on Orcas Island, and south of a line from Steep Point on Orcas Island to Limestone Point on San Juan Island.

(4) It is unlawful to dive for any purpose from a commercially-licensed fishing vessel, except vessels actively fishing geoducks under contract with the Washington Department of Natural Resources, on January 10 and 11, 1998.

REPEALER

The following section of the Washington Administrative Code is repealed:

WAC 220-52-07300W Sea urchin (98-01)

WSR 98-03-009

EMERGENCY RULES

DEPARTMENT OF TRANSPORTATION

[Filed January 9, 1998, 9:25 a.m.]

Date of Adoption: January 9 [8], 1998.

Purpose: Establishes new WAC 468-400-010 Declaration of purpose, 468-400-020 Definitions, 468-400-030 Bicycle race permit required, and 468-400-040 Bicycle race permit conditions.

Statutory Authority for Adoption: Chapters 34.05 and 34.08 RCW.

Under RCW 34.05.350 the agency for good cause finds that immediate adoption, amendment, or repeal of a rule is necessary for the preservation of the public health, safety, or general welfare, and that observing the time requirements of

notice and opportunity to comment upon adoption of a permanent rule would be contrary to the public interest.

Reasons for this Finding: Establishes new chapter 468-400 WAC, Bicycle racing.

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 1, amended 0, repealed 0.

Number of Sections Adopted at Request of a Nongovernmental Entity: New 0, amended 0, repealed 0.

Number of Sections Adopted on the Agency's own Initiative: New 4, 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 4, amended 0, repealed 0; Pilot Rule Making: New 0, amended 0, repealed 0; or Other Alternative Rule Making: New 0, amended 0, repealed 0.

Effective Date of Rule: Immediately.

January 8, 1998

Gerald E. Smith

Deputy Secretary for Operations

Chapter 468-400 WAC BICYCLE RACING

NEW SECTION

WAC 468-400-010 Policy. It is the policy of the Washington state department of transportation (department) to permit bicycle racing on state highways in accordance with the conditions and regulations set forth in this code and the latest edition of the "*Washington State Bicycle Racing Guidelines*."

NEW SECTION

WAC 468-400-020 Definitions. Bicycles are defined in RCW 47.04.071. Bicycle racing means any contest of speed or competition where bicycles are used. Bicycle racing permits riding more than two abreast on a roadway. This code applies to all events in which bicycle racing takes place, including the following.

(1) Duathlon, triathlon, or multisport event. A multisport race in which bicycle racing forms an essential component of the complete event. The bicycle race portion of these events is conducted similar to a time trial.

(2) Time trial. Time trials are events in which individuals or small teams of riders, separately ride the same route and distance for elapsed time. Time trials are generally started at preset intervals and held on an out and back or circuit course.

(3) Criterium. Criteriums are massed start, high speed bicycle race events in which riders race around a closed circuit course to compete for order of finish. Criteriums are usually held on closed urban or suburban public streets. The course is normally one-half to one mile in length.

(4) Road race. Road races are massed start events in which riders complete a race course for order of finish. The course may be point to point, a large circuit, or repeated laps

of a shorter circuit. Road races are usually held on rural or suburban roads, but may also take place on urban streets.

(5) Rolling enclosure. A rolling enclosure is a type of traffic control where escort vehicles form a caravan leading and following a group of racers. The enclosure sets aside a moving part of the roadway in the direction of the race for exclusive use of bicyclists. Racers inside the enclosure are not required to follow the normal rules of the road but are controlled by rules set forth in the *Washington State Bicycle Racing Guidelines*. Racers are not allowed to cross the center line unless the entire road is traffic controlled. A rolling enclosure is the typical traffic control used to run a road race.

NEW SECTION

WAC 468-400-030 Bicycle race permit required. All persons or organizations (permittee) conducting any form of bicycle race on a state highway shall apply for a bicycle race permit from the applicable WSDOT region administrator. The bicycle race permit must be applied for at least sixty days before the bicycle race event. No bicycle race event may be held on a state highway without an approved bicycle race permit. The WSDOT region administrator may waive these requirements under special conditions.

NEW SECTION

WAC 468-400-040 Bicycle race permit conditions.

(1) Bicycle race permits shall be granted only under conditions that ensure reasonable safety for all participants, spectators, and highway users. Reasonable safety implies that race participants, spectators, and other highway users have been accommodated in planning in a manner as to minimize the possibility of placing one in conflict with another.

(2) Bicycle race permit requests must include a race description stating all pertinent information required to understanding the bicycle race event. The request must include a map showing the roadway on which the race will be held. Applications must specify the number of vehicles on the roadway used to run a race, starting and anticipated finish time, maximum number of racers, number and training of course marshals, types of signing, and communications equipment.

(3) Approval of other involved jurisdictions shall be obtained prior to formal issuance of a bicycle race permit from the WSDOT.

(4) If the race only crosses a state highway, the WSDOT region administrator may waive the need for a bicycle race permit provided the permittee can show that reasonable traffic control and safety are provided by the organizer and other road authority: *Provided further*, That the permittee provide the indemnification and liability insurance prescribed in subsections (6) and (7) of this section.

(5) Bicycle racing will not normally be allowed on the Interstate Highway System.

(6) The permittee shall indemnify, defend and save harmless the state of Washington for any claim, suit, action for injuries, death or any other cause of personal injury or property damage arising from the issuance of a bicycle race

permit, including claims of race participants, pedestrians, or other roadway users.

(7) The permittee shall obtain liability insurance in an amount no less than one million dollars to cover the state of Washington for any and all liabilities, including all costs, attorney fees, judgments or other expenses, arising out of the use of state highways for the bicycle race event. The state shall be named as an additional insured on all insurance policies.

(8) When five or more vehicles are lined up behind a bicycle race and delayed for more than five minutes, the bicycle race shall be neutralized at a place of safety to allow the vehicles to pass.

(9) Requests for bicycle race permits must comply with the current WSDOT "Washington State Bicycle Racing Guidelines."

(10) The original or certified copy of the permit must be available at the bicycle race for the duration of the bicycle race event.

Copies of the "Washington State Bicycle Racing Guidelines" may be obtained from the WSDOT bicycle and pedestrian program or a WSDOT region office.

**WSR 98-03-057
EMERGENCY RULES
DEPARTMENT OF
FISH AND WILDLIFE**

[Order 98-08—Filed January 16, 1998, 4:37 p.m.]

Date of Adoption: January 16, 1998.

Purpose: Personal use rules.

Citation of Existing Rules Affected by this Order: Repealing WAC 232-28-61900B; and amending WAC 232-28-619.

Statutory Authority for Adoption: RCW 77.12.040.

Under RCW 34.05.350 the agency for good cause finds that immediate adoption, amendment, or repeal of a rule is necessary for the preservation of the public health, safety, or general welfare, and that observing the time requirements of notice and opportunity to comment upon adoption of a permanent rule would be contrary to the public interest.

Reasons for this Finding: The Bogachiel River closure was deleted from emergency rule WAC 232-28-61900B (its effective date January 5, 1998). The Bogachiel Hatchery is anticipated to meet its winter steelhead egg take program goal of 900,000. The reopening of this section will also facilitate the removal of hatchery steelhead from the river by allowing sport anglers to harvest them. Other river closures listed are still required to allow hatchery facilities located on them to maximize their hatchery winter steelhead egg take, due to the below average run. There is insufficient time to promulgate permanent rules.

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 Request of a Nongovernmental Entity: New 0, amended 0, repealed 0.

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

Effective Date of Rule: Immediately.

January 16, 1998

Dirk Brazil

for Bern Shanks

Director

NEW SECTION

WAC 232-28-61900C Washington game fish seasons and catch limits-Exceptions to statewide rules. Notwithstanding the provisions of WAC 232-28-619, effective immediately until further notice it is unlawful to fish for or possess steelhead taken from the following waters:

(1) Green River - Closed from 500 feet below the hatchery trap at Palmer, upstream to the outlet of the upper rearing pond.

(2) Snoqualmie River - Closed from the Plumb access boat launch ramp to Snoqualmie Falls.

(3) Tokul Creek - Closed.

(4) Skykomish River - Closed from 1,000 feet downstream from the Reiter Ponds outlet to 1,500 feet upstream of the Reiter Ponds outlet.

(5) Stillaguamish River, north fork - Closed from the mouth of French Creek upstream to Swede Heaven Bridge.

(6) Skagit River - Closed from the 530 Bridge at Rockport to the Cascade Road Bridge at Marblemount.

(7) Cascade River - Closed from the mouth to Cascade/Rockport Bridge.

(8) Naselle River - Closed from the Highway 4 Bridge to the Big Hill Bridge.

(9) Willapa River - Closed from the Highway 6 Bridge (approximately two miles downstream from the mouth of Trap Creek to Forks Creek.

Reviser's note: The typographical error in the above section occurred in the copy filed by the agency and appears in the Register pursuant to the requirements of RCW 34.08.040.

REPEALER

The following section of the Washington Administrative Code is repealed:

WAC 232-28-61900B Washington game fish seasons and catch limits-Exceptions to statewide rules. (98-02)

**WSR 98-03-058
EMERGENCY RULES
DEPARTMENT OF
FISH AND WILDLIFE**

[Order 98-07—Filed January 16, 1998, 4:40 p.m.]

Date of Adoption: January 15, 1998.

Purpose: Commercial fishing regulations.

EMERGENCY

Citation of Existing Rules Affected by this Order: Repealing WAC 220-52-07300X; and amending WAC 220-52-073.

Statutory Authority for Adoption: RCW 75.08.080.

Under RCW 34.05.350 the agency for good cause finds that immediate adoption, amendment, or repeal of a rule is necessary for the preservation of the public health, safety, or general welfare, and that observing the time requirements of notice and opportunity to comment upon adoption of a permanent rule would be contrary to the public interest.

Reasons for this Finding: Harvestable amounts of red and green sea urchins exist in the areas described. Prohibition of all diving within two days of scheduled sea urchin openings discourages the practice of fishing on closed days and hiding the unlawful catch underwater until the legal opening. There is insufficient time to promulgate permanent rules.

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 Request of a Nongovernmental Entity: New 0, amended 0, repealed 0.

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

Effective Date of Rule: Immediately.

January 15, 1998

Dirk Brazil
for Bern Shanks
Director

north of a line projected east-west one-quarter mile north of Lime Kiln Light on San Juan Island and west of a line projected true north from Limestone Point on San Juan Island.

(b) Sea Urchin District 2 (Southern San Juans and Port Townsend) is defined as those waters of Marine Fish/Shellfish Management and Catch Reporting Area 22A south of a line projected east-west one-quarter mile north of Lime Kiln Light on San Juan Island and east of a line projected true north from Limestone Point on San Juan Island, and Areas 21A, 21B, 22B, 23A, 23B, 25A, and 25B. The following areas within Sea Urchin District 2 are closed to the harvest of sea urchins at all times.

(i) Those waters of Haro Strait north of a line projected east-west one-half mile south of Eagle Point on San Juan Island and south of a line projected east-west one-quarter mile north of Lime Kiln Light on San Juan Island.

(ii) Those waters of San Juan Channel and Upright Channel within the following lines: north of a line from Cattle Point on San Juan Island to Davis Point on Lopez Island, south of a line projected from Flat Point on Lopez Island true west to Shaw Island, west of a line from Neck Point on Shaw Island to Steep Point on Orcas Island, and south of a line from Steep Point on Orcas Island to Limestone Point on San Juan Island.

(4) It is unlawful to dive for any purpose from a commercially-licensed fishing vessel, except vessels actively fishing geoducks under contract with the Washington Department of Natural Resources, on January 17 and 18, 1998.

REPEALER

The following section of the Washington Administrative Code is repealed:

WAC 220-52-07300X Sea urchin (98-05)

WSR 98-03-070 EMERGENCY RULES DEPARTMENT OF FISH AND WILDLIFE

[Order 98-08—Filed January 20, 1998, 4:06 p.m.]

Date of Adoption: January 20, 1998.

Purpose: Personal use rules.

Citation of Existing Rules Affected by this Order: Amending WAC 220-56-350 and 220-56-380.

Statutory Authority for Adoption: RCW 75.08.080.

Under RCW 34.05.350 the agency for good cause finds that immediate adoption, amendment, or repeal of a rule is necessary for the preservation of the public health, safety, or general welfare, and that observing the time requirements of notice and opportunity to comment upon adoption of a permanent rule would be contrary to the public interest.

Reasons for this Finding: These rules are necessary to conserve the resource and to provide maximum recreational harvest opportunity. There is insufficient time to promulgate permanent rules.

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

NEW SECTION

WAC 220-52-07300Y Sea urchins Notwithstanding the provisions of WAC 220-52-073, effective immediately until further notice it is unlawful to take or possess sea urchins taken for commercial purposes except as provided for in this section:

(1) Red sea urchins: Sea Urchin Districts 1, 2, and 4 are open only on January 19 and 20, 1998. It is unlawful to harvest red sea urchins larger or smaller than the following size (size in diameter exclusive of the spines):

(a) District 1 and 2 - 4.0 minimum to 5.5 maximum inches.

(b) District 4 - 3.25 minimum to 5.0 maximum inches.

(2) Green sea urchins: Sea Urchin Districts 1, 2, 3, 4, and Marine Fish/Shellfish Management and Catch Reporting Areas 24A, 24B, 24C, 24D, are open only on January 19 and 20, 1998. The minimum size for green sea urchins is 2.25 inches in diameter exclusive of the spines.

(3) Sea Urchin Districts:

(a) Sea Urchin District 1 (Northern San Juan Islands) is defined as Marine Fish-Shellfish Management and Catch Reporting Areas 20A, 20B, and those waters of Area 22A

Recently Enacted State Statutes: New 0, amended 0, repealed 0.

Number of Sections Adopted at Request of a Nongovernmental Entity: New 0, amended 0, repealed 0.

Number of Sections Adopted on the Agency's own Initiative: New 2, 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.

Effective Date of Rule: Immediately.

January 20, 1998

Dirk Brazil

for Bern Shanks

Director

except as follows: State-owned tidelands from a row of tires at Camp Discovery south approximately 2,000 feet to a second row of tires, and state-owned tidelands beginning approximately 3/4 mile north of Camp Harmony extending approximately 1,200 feet north state-owned tidelands from markers and signs posted immediately north of the community of Lindsays Beach north to a line immediately north of Broadspit (identified by markers and signs) are **open April 1, 1998 until further notice.**

(2) Wolfe Property State Park - **Open** until further notice.

NEW SECTION

WAC 220-56-35000R Clams other than razor clams—Areas and seasons. Notwithstanding the provisions of WAC 220-56-350, effective immediately until further notice, it is unlawful to harvest or possess clams, cockles, or mussels taken for personal use from the following public tidelands during the closed periods herein, and lawful to harvest only during the open periods specified herein.

(1) Dabob Bay - All state-owned tidelands in Dabob Bay north of a line drawn from Camp Harmony to Lindsays Beach are **closed** to the harvest of oysters the entire year, except as follows: State-owned tidelands from a row of tires at Camp Discovery south approximately 2,000 feet to a second row of tires, and state-owned tidelands beginning approximately 3/4 mile north of Camp Harmony extending approximately 1,200 feet north state-owned tidelands from markers and signs posted immediately north of the community of Lindsays Beach north to a line immediately north of Broadspit (identified by markers and signs) are **open April 1, 1998 until further notice.**

(2) Kayak Point County Park - **Open** April 1 through April 15, 1998.

(3) Rendsland Creek - **Open** until further notice.

(4) Seahurst County Park - **Closed** April 16, 1998 until further notice.

(5) Useless Bay State Park - **Open** until further notice.

(6) Wolfe Property State Park - **Open** until further notice.

(7) Frye Cove - **Closed** April 1, 1998 until further notice.

(8) Pitship Point - **Closed** until further notice.

NEW SECTION

WAC 220-56-38000L Oysters—Areas and seasons. Notwithstanding the provisions of WAC 220-56-380, effective immediately until further notice, it is unlawful to harvest or possess oysters taken for personal use from the following public tidelands during the closed periods herein, and lawful to harvest only during the open periods herein.

(1) Dabob Bay - All state-owned tidelands in Dabob Bay north of a line drawn from Camp Harmony to Lindsays Beach are **closed** to the harvest of oysters the entire year,



WSR 98-03-002
ATTORNEY GENERAL'S OFFICE
[Filed January 7, 1998, 3:42 p.m.]

NOTICE OF REQUEST FOR
ATTORNEY GENERAL'S OPINION
WASHINGTON ATTORNEY GENERAL

The Washington Attorney General issues formal published opinions in response to requests by the heads of state agencies, state legislators, and county prosecuting attorneys. When it appears that individuals outside the Attorney General's Office have information or expertise that will assist in the preparation of a particular opinion, a summary of that opinion request will be published in the state register. If you are interested in commenting on a request listed in this volume of the register, you should notify the Attorney General's Office of your interest by February 11, 1998. This is not the due date by which comments must be received. However, if you do not notify the Attorney General's Office of your interest in commenting on an opinion request by February 11, 1998, the opinion may be issued before your comments have been received. You may notify the Attorney General's Office of your intention to comment by calling (360) 753-2678, or by writing to the Solicitor General, Office of the Attorney General, P.O. Box 40100, Olympia, WA 98504-0100. When you notify the office of your intention to comment, you will be provided with a copy of the opinion request in which you are interested; information about the Attorney General's Opinion process; information on how to submit your comments; and a due date by which your comments must be received to ensure that they are fully considered.

The Attorney General's Office seeks public input on the following opinion request(s).

97-12-05 Request by William Backlund
State Representative, 45th District

- (1) Whether the Washington Minimum Wage Act (RCW 49.46, et seq.) or the federal Fair Labor Standards Act (29 U.S.C. § 201, et seq.) controls the receipt of minimum wage and overtime by employees of adult family homes.
- (2) Whether adult family homes and employees of those homes who are not engaged in interstate commerce are exempt from coverage under the FLSA.

WSR 98-03-005
NOTICE OF PUBLIC MEETINGS
INTERAGENCY COMMITTEE
FOR OUTDOOR RECREATION
[Memorandum—January 5, 1998]

The Interagency Committee for Outdoor Recreation (IAC) will meet Thursday, February 5, 1998, beginning at 2:00 p.m. in the large auditorium at SeaTac Airport. The auditorium is located on the Mezzanine Level in the center of the main terminal. To access the mezzanine, use the staircase located behind EVA airlines or the elevator located across from the rear of the Delta Airline ticket counter.

This meeting is a funding recommendation session for projects in the riparian habitat program.

If you plan to participate or have materials for committee review, please submit information to IAC no later than February 22, 1998. This will allow for distribution to committee members in a timely fashion.

IAC public meetings are held in locations accessible to people with disabilities. Arrangements for individuals with hearing or visual impairments can be provided by contacting IAC before February 22 at (360) 902-3000 or TDD (360) 902-1996.

WSR 98-03-006
NOTICE OF PUBLIC MEETINGS
UNIVERSITY OF WASHINGTON
[Memorandum—January 6, 1998]

In accordance with RCW 42.30.075, the University of Washington is providing the enclosed meeting schedule(s) for governing bodies of schools, colleges, departments and programs at the university that maintain regular meeting schedules at the University of Washington Public Records Office.

Department of Environmental Health

The following is the schedule for the Department of Environmental Health faculty meetings for 1998. All meetings will be held on the second Friday of the month in the 2nd Floor Roosevelt Conference Room, unless otherwise noted.

Friday	January 16	1:15 p.m.-2:15 p.m.	Room 322, SCC
Friday	February 12	12:00 noon-2:00 p.m.	Roos. Bldg.
Friday	March 12	12:00 noon-2:00 p.m.	Roos. Bldg.
Friday	April 9	12:00 noon-2:00 p.m.	Roos. Bldg.
Friday	May 14	12:00 noon-2:00 p.m.	Roos. Bldg.
Friday	June 11	12:00 noon-2:00 p.m.	Roos. Bldg.
Friday	July 9	12:00 noon-2:00 p.m.	Roos. Bldg.
Friday	August 13	12:00 noon-2:00 p.m.	Roos. Bldg.
Friday	September 10	12:00 noon-2:00 p.m.	Roos. Bldg.
Friday	October 8	12:00 noon-2:00 p.m.	Roos. Bldg.
Friday	November 12	12:00 noon-2:00 p.m.	Roos. Bldg.
Friday	December 10	12:00 noon-2:00 p.m.	Roos. Bldg.

To request disability accommodations, contact the Office of the ADA Coordinator, at least ten days in advance of the event at 543-6450 (voice), 543-6452 (TDD), 685-3885 (FAX), access @u.washington.edu (e-mail).

WSR 98-03-007
NOTICE OF PUBLIC MEETINGS
DEPARTMENT OF AGRICULTURE
(Beef Commission)
[Memorandum—January 7, 1998]

1998 Washington State Beef Commission
Board Meeting Dates

This is to notify you of the following 1998 meeting dates for the Washington State Beef Commission:

January 22, 1998	Board Meeting	Ellensburg
March 5/6, 1998	Strategic Planning Meeting	Seattle
May 21, 1998	Budget Meeting	Ellensburg

MISC.

June 18, 1998	Annual Meeting	Ellensburg
August 20, 1998	Board Meeting	Chelan
November 11/12, 1998	Board Meeting	Ocean Shores

If there are questions, please contact (206) 464-7403.

WSR 98-03-010
NOTICE OF PUBLIC MEETINGS
NOXIOUS WEED CONTROL BOARD
 [Memorandum—January 7, 1998]

The Washington State Noxious Weed Control Board will be holding a special meeting in February. The meeting will be February 19, 1998, at 8:30 a.m. - 5:00 p.m., General Administration Building, Room G-3, 210 11th Avenue S.W., Olympia, WA.

The public is welcome to attend all meetings. Contact Lisa Lantz, Executive Secretary, Washington State Noxious Weed Control Board, (253) 872-2972, if you have any questions.

WSR 98-03-012
NOTICE OF PUBLIC MEETINGS
PUBLIC EMPLOYEES BENEFITS BOARD
 [Memorandum—January 9, 1998]

Public Employees Benefits Board
 1998 Meeting Schedule

January 13	Attorney General Conference Room, Lacey
February 24	Tyee Hotel, Coho C Room, Tumwater
March 24	Lacey/Woodland Community Center, Lacey
May 12	Lacey/Woodland Community Center, Lacey
June 30 - tentative	Tyee Hotel, Olympia Room, Tumwater
July 14	Lacey/Woodland Community Center, Lacey
August 4 - tentative	Tyee Hotel, Olympia Room, Tumwater
August 11 - tentative	Tyee Hotel, Olympia Room, Tumwater
September 15	Lacey/Woodland Community Center, Lacey
October 27	Lacey/Woodland Community Center, Lacey
December 1	Lacey/Woodland Community Center, Lacey

All meetings will begin at 1:00 p.m.

WSR 98-03-013
NOTICE OF PUBLIC MEETINGS
PUBLIC EMPLOYEES BENEFITS BOARD
 [Memorandum—January 9, 1998]

Public Employees Benefits Board
 Attorney General Conference Center
 RoweSix, Building One
 4224 6th Avenue S.E.
 Lacey, WA 98504
 1:00 p.m., January 13, 1998
 (360) 438-8584

WSR 98-03-014
NOTICE OF PUBLIC MEETINGS
UNIVERSITY OF WASHINGTON
 [Memorandum—January 7, 1998]

In accordance with RCW 42.30.075, the University of Washington is providing the enclosed meeting schedule(s) for governing bodies of schools, colleges, departments and programs at the university that maintain regular meeting schedules at the University of Washington Public Records Office. **Please note that the ASUW Finance and Budget Committee notice is a revised notice replacing the original notice sent on January 5, 1998.**

Materials Science and Engineering
 MSE Faculty Meetings

Meeting Dates	Location	Time
January 16, 1998	243 Wilcox	2:30
February 6, 1998	243 Wilcox	2:30
February 20, 1998	243 Wilcox	2:30
March 6, 1998	243 Wilcox	2:30
March 20, 1998	243 Wilcox	2:30
April 3, 1998	243 Wilcox	2:30
April 17, 1998	243 Wilcox	2:30
May 1, 1998	243 Wilcox	2:30
May 15, 1998	243 Wilcox	2:30
June 5, 1998	243 Wilcox	2:30
September 23, 1998	To be determined	
October 2, 1998	243 Wilcox	2:30
October 16, 1998	243 Wilcox	2:30
November 6, 1998	243 Wilcox	2:30
November 20, 1998	243 Wilcox	2:30
December 4, 1998	243 Wilcox	2:30

Business Administration Faculty Council

In accordance with your memo dated December 1, 1995, regarding the Open Public Meetings Act, I am enclosing the Business Administration Faculty Council's scheduled meetings for the 1997-1998 academic year.

Dates	Times	Location
Wed. October 8	2:00-3:30 p.m.	Mackenzie Hall, McCabe Room
Wed. November 12	2:00-3:30 p.m.	Mackenzie Hall, McCabe Room
Wed. December 10	2:00-3:30 p.m.	Mackenzie Hall, McCabe Room
Thurs. January 12	10:00-11:00 a.m.	Mackenzie Hall, McCabe Room - cancelled
Thurs. February 9	10:00-11:00 a.m.	Mackenzie Hall, McCabe Room - changed
Thurs. March 9	10:00-11:00 a.m.	Mackenzie Hall, McCabe Room - changed
Fri. April 10	1:00-2:30 p.m.	Mackenzie Hall, McCabe Room
Fri. May 8	1:00-2:30 p.m.	Mackenzie Hall, McCabe Room
Fri. June 12	1:00-2:30 p.m.	Mackenzie Hall, McCabe Room

MISC.

Finance and Budget (ASUW)

Meeting Dates	Location	Time
January 5, 1998	HUB 204M	3:00
January 12, 1998	HUB 204M	3:00
January 26, 1998	HUB 204M	3:00
February 2, 1998	HUB 204M	3:00
February 9, 1998	HUB 204M	3:00
February 23, 1998	HUB 204M	3:00
March 2, 1998	HUB 204M	3:00
March 9, 1998	HUB 204M	3:00
March 16, 1998	HUB 204M	3:00
March 23, 1998	HUB 204M	3:00

Friday	April 10	12:00 noon-2:00 p.m.	Roos. Bldg.
Friday	May 8	12:00 noon-2:00 p.m.	Roos. Bldg.
Friday	June 12	12:00 noon-2:00 p.m.	Roos. Bldg.
Friday	July 10	12:00 noon-2:00 p.m.	Roos. Bldg.
Friday	August 14	12:00 noon-2:00 p.m.	Roos. Bldg.
Friday	September 11	12:00 noon-2:00 p.m.	Roos. Bldg.
Friday	October 9	12:00 noon-2:00 p.m.	Roos. Bldg.
Friday	November 13	12:00 noon-2:00 p.m.	Roos. Bldg.
Friday	December 11	12:00 noon-2:00 p.m.	Roos. Bldg.

To request disability accommodations, contact the Office of the ADA Coordinator, at least ten days in advance of the event at 543-6450 (voice), 543-6452 (TDD), 685-3885 (FAX), access @u.washington.edu (e-mail).

WSR 98-03-015
NOTICE OF PUBLIC MEETINGS
CONVENTION AND TRADE CENTER

[Memorandum—January 7, 1998]

The Washington State Convention and Trade Center's (WSCTC) Design Committee will meet on Wednesday, January 14, 1998, from 10:30 a.m. - 12:30 p.m. in Room 505-506 of the Convention Center, 800 Convention Place, Seattle.

A regular meeting of the WSCTC board of directors will be held on Wednesday, January 14, 1998, at 1:30 p.m. in Room 504 of the Convention Center.

Room 504 and 505-506 may be accessed via the elevator located inside the main entrance on Level 4.

If you have any questions regarding these meetings, please call 694-5000.

WSR 98-03-016
NOTICE OF PUBLIC MEETINGS
UNIVERSITY OF WASHINGTON

[Memorandum—January 8, 1998]

In accordance with RCW 42.30.075, the University of Washington is providing the enclosed meeting schedule(s) for governing bodies of schools, colleges, departments and programs at the university that maintain regular meeting schedules at the University of Washington Public Records Office. **Please note that the notice for the School of Public Health and Community Medicine is a revised notice, supplementing the original notice sent on January 6, 1998.**

Department of Environmental Health

1998 Faculty Meeting Schedule

The following is the schedule for the Department of Environmental Health faculty meetings for 1998. All meetings will be held on the second Friday of the month in the 2nd floor Roosevelt Conference Room, unless otherwise noted.

Friday	January 16	1:15 p.m.-2:15 p.m.	Room 322, SCC
Friday	February 13	12:00 noon-2:00 p.m.	Roos. Bldg.
Friday	March 13	12:00 noon-2:00 p.m.	Roos. Bldg.

Communications

Faculty Meeting

Meeting Dates	Location	Time
February 10	CMU 126	3:30 p.m.
March 10	CMU 126	3:30 p.m.
April 14	CMU 126	3:30 p.m.
May 12	CMU 126	3:30 p.m.
June 9	CMU 126	3:30 p.m.
October 13	CMU 126	3:30 p.m.
November 10	CMU 126	3:30 p.m.
December 8	CMU 126	3:30 p.m.

ASUW Senate

Meeting Dates	Location	Time
January 6	Gowen 301	5 p.m.
January 13	Gowen 301	5 p.m.
January 20	Gowen 301	5 p.m.
January 27	Gowen 301	5 p.m.
February 3	Gowen 301	5 p.m.
February 10	Gowen 301	5 p.m.
February 17	Gowen 301	5 p.m.
February 24	Gowen 301	5 p.m.
March 3	Gowen 301	5 p.m.
March 10	Gowen 301	5 p.m.
March 17	Gowen 301	5 p.m.
March 24	Gowen 301	5 p.m.
April 7	Gowen 301	5 p.m.
April 14	Gowen 301	5 p.m.
April 21	Gowen 301	5 p.m.
April 28	Gowen 301	5 p.m.
May 5	Gowen 301	5 p.m.
May 12	Gowen 301	5 p.m.
May 19	Gowen 301	5 p.m.
May 26	Gowen 301	5 p.m.
June 2	Gowen 301	5 p.m.
June 9	Gowen 301	5 p.m.

WSR 98-03-017
NOTICE OF PUBLIC MEETINGS
SOUTH PUGET SOUND COMMUNITY COLLEGE

[Memorandum—January 8, 1998]

At their January 8, 1998, meeting, the board of trustees of Community College District 24 voted to hold a special meeting on Thursday, January 22, 1998, from 8:30 a.m. to

MISC.

12:00 noon in the Boardroom of the Administrative and Student Services Building on the main campus.

If you have any questions, please contact 754-7711, ext. 202.

WSR 98-03-019
RULES OF COURT
STATE SUPREME COURT
[Filed January 12, 1998, 2:18 p.m.]

Please be advised that the rule orders that were dated December 4, 1997, had the wrong 25700-A numbers assigned to them. Please change the three digit number to correctly reflect the following:

No. 25700-A-613 - In the Matter of the Adoption of the Amendments to APR 8(e) and (f); RPC 7.5(a); RAP 2.2, RAP 2.3, RAP 2.4, RAP 3.2, RAP 3.3, RAP 4.3, RAP 5.1, RAP 5.2, RAP 5.3, RAP 5.4, RAP 5.5, RAP 7.2, RAP 9.2, RAP 9.5, RAP 9.6, RAP 9.7, RAP 9.8, RAP 9.10, RAP 10.1, RAP 10.2, RAP 10.3, RAP 10.4, RAP 10.5, RAP 11.3, RAP 12.4, RAP 12.5, RAP 12.7, RAP 13.4, RAP 13.7, RAP 14.2, RAP 14.3, RAP 14.6, RAP 16.9, RAP 16.10, RAP 16.11, RAP 17.4, RAP 17.5, RAP 18.3, RAP 18.6, RAP 18.9, RAP 18.23; RALJ 8.1, RALJ 9.1, RALJ 9.3, RALJ 10.2 and New RALJ 10.3;

No. 25700-A-614 - In the Matter of the Adoption of the Amendments to CRLJ 73(b); CrRLJ 6.13(d) and IRLJ 2.6(b)(1);

No. 25700-A-615 - In the Matter of the Adoption of the Amendment to RAP 12.3;

No. 25700-A-617 - In the Matter of the Adoption of the Amendment to RAP 10.4, RAP 16.1, RAP 16.3, RAP 16.7, RAP 16.15, RAP 16.19, New RAP 16.20, New RAP 16.21, New RAP 16.22, New RAP 16.23, New RAP 16.24, New RAP 16.25, New RAP 16.26, New RAP 16.27; New SPRC 1, New SPRC 2, New SPRC 3, New SPRC 4, New SPRC 5, New SPRC 6, and New SPRC 7.

WSR 98-03-020
NOTICE OF PUBLIC MEETINGS
HUMAN RIGHTS COMMISSION
[Memorandum—January 9, 1998]

Human Rights Commission Meetings for 1998

With the exception of the conference calls, the usual format for the meetings is a planning session or community meeting on Thursday evening from 7:00 p.m. - 9:00 p.m. and a regular business meeting beginning at 9:00 a.m. on Friday.

Please contact 753-4876 if you have questions or need additional information.

COMMISSION MEETING DATES AND LOCATIONS
FOR 1998
(Thursday/Friday Meetings
Unless Otherwise Indicated)

DATES	LOCATION
January 29-30*	Seattle
February 19-20	Olympia

March 19-20	Tacoma
April 24 (Friday)	Olympia (Conference Call)
May 21-22	Yakima
June 25-26	Spokane
July 23-24	Bellingham
August 21 (Friday)	Olympia (Conference Call)
September 24-25	Bellevue
October 22-23	Vancouver
November 20 (Friday)	Olympia (Conference Call)
December 18 (Friday)	Olympia (Conference Call)

*The hearing on the Service Animal and Guide Dog regulations will be held in conjunction with this meeting (probably on Thursday evening).

WSR 98-03-028
NOTICE OF PUBLIC MEETINGS
OFFICE OF THE GOVERNOR
(Clemency and Pardons Board)
[Memorandum—January 9, 1998]

The Washington State Clemency and Pardons Board hereby files with the code reviser the following schedule of its regular meetings for 1998:

The March 13, June 5, September 4 and December 4 meetings of the Clemency and Pardons Board will be held in the John A. Cherberg Building, Hearing Room 4, Olympia, Washington, starting at 10:00 a.m.

WSR 98-03-029
INSURANCE COMMISSIONER'S OFFICE
[Filed January 13, 1998, 2:41 p.m.]

T 98-1
TECHNICAL ASSISTANCE ADVISORY
January 12, 1998

Attention: Disability Insurers, Health Care Service Contractors, Health Maintenance Organizations.

Re: Diabetes Cost Reduction Act of 1997.

New Washington state laws require that on and after January 1, 1998, health care service contractors (RCW 48.44.315), health maintenance organizations (RCW 48.46.272), disability insurers (RCW 48.20.391) and group disability insurers (RCW 48.21.143) who issue or renew coverage must provide specified coverage for diabetic persons.

This law does not apply to the health benefit plan that provides benefits identical to the schedule of services covered by the basic health plan. The statute provides definitions, creates certain exceptions and indicates some procedures carriers must follow to adhere to its requirements.

We will not adopt specific rules regarding this statute at this time. Instead, we will monitor carrier compliance, encourage research, training and education regarding the act and we will revisit the need for rules in the coming year.

Please be advised, however, that we will begin determining insurer and carrier compliance with these statutes, as written,

MISC.

for all contracts issued or renewed on or after January 1, 1998.

If you have questions regarding this statute, or its interpretation, please call Don Sloma at (360) 586-5597 or Chris Daugherty at (360) 664-2531.

WSR 98-03-035
RULES OF COURT
STATE SUPREME COURT
[January 8, 1998]

IN THE MATTER OF THE ADOPTION) ORDER
OF THE AMENDMENT TO ER 904) NO. 25700-A-618

The Washington State Bar Association having recommended the adoption of the proposed amendment to ER 904, and the Court having determined that the proposed amendment will aid in the prompt and orderly administration of justice and further determined that an emergency exists which necessitates an early adoption;

Now, therefore, it is hereby

ORDERED:

(a) That the amendment as attached hereto is adopted.

(b) That pursuant to the emergency provisions of GR 9(i), the amendment will be published expeditiously and become effective upon publication.

DATED at Olympia, Washington this 8th day of January, 1998.

Durham, C.J.

J. M. Dolliver

Madsen, J.

Smith, J.

Alexander, J.

Guy, J.

Talmadge, J.

Johnson, J.

Sanders, J.

ER 904

ADMISSIBILITY OF DOCUMENTS

(a) Certain Documents Admissible. In a civil case, any of the following documents, if relevant may be admitted in civil cases proposed as exhibits in accordance with section (b) and (c) of this rule shall be deemed admissible unless objection is made under section (c) of this rule:

(1) A bill, report made for the purpose of treatment, chart, record of a hospital, doctor, dentist, registered nurse, licensed practice nurses, physical therapist, psychologist or other health care provider, on a letterhead or billhead;

(2) A bill for drugs, medical appliances or other related expenses on a letterhead or billhead;

(3) A bill for, or an estimate of, property damage on a letterhead or billhead. In the case of an estimate, the party intending to offer the estimate shall forward a copy to the adverse party with a statement indicating whether or not the property was repaired, and if it was, whether the estimated repairs were made in full or in part and attach a copy of the receipted bill showing the items of repair and amounts paid;

(4) A ~~police~~, weather, or traffic signal report, or standard United States government table;

(5) A photograph, x-ray, drawing, map, blueprint or similar documentary evidence, ~~to the extent it is admissible under the other rules of evidence, but without the need for formal proof of authentication or identification:~~

(6) A document not specifically covered by any of the foregoing provisions but relating to a material fact and having equivalent circumstantial guaranties of trustworthiness, the admission of which would serve the interests of justice.

(b) Notice. Any party intending to offer a documents under this rule must serve on all parties a notice, ~~accompanied by a copy of the document and the name, address and telephone number of its author or maker, at least no less than 30 days before prior to trial, stating that the documents are being offered under Evidence Rule 904 and shall be deemed authentic and admissible without testimony or further identification, unless objection is served within 14 days of the date of notice, pursuant to ER 904(c). The notice shall be accompanied by (1) numbered copies of the documents and (2) an index, which shall be organized by document number and which shall contain a brief description of the document along with the name, address and telephone number of the document's author or maker.~~ The notice shall be filed with the court. Copies of documents that accompany the notice shall not be filed with the court.

~~(c) Objection to Authenticity or Admissibility Opposing Party May Require Proof of Identification and Authentication. Any other party may, within Within 14 days of notice, any other party may serve on all parties serve a written objection to any document offered under section (b), identifying each document to which objection is made by number and brief description proposed to be offered under this rule. In the event of objection, the document shall be admitted into evidence only in accordance with the other rules of evidence. If the court finds that such objection was made without a reasonable basis, then the court may award expenses in accordance with GR 37(e).~~

(1) If an objection is made to a document on the basis of authentication, and if the court finds that the objection was made without reasonable basis, the offering party shall be entitled to an award of expenses and reasonable attorney fees incurred as a result of the required proof of authentication as to each such document determined to be authentic and offered as an exhibit at the time of trial.

(2) If an objection is made to a document on the basis of admissibility, the grounds for the objection shall be specifically set forth, except objection on the grounds of relevancy need not be made until trial. If the court finds that the objection was made without reasonable basis and the document is admitted as an exhibit at trial, the court may award the offering party any expenses incurred and reasonable attorney fees.

(d) No Effect Regarding Weight of Evidence Submitted Rule. This rule does not restrict argument or proof relating to the weight to be accorded the evidence submitted, nor does it restrict the trier of fact's authority to determine the weight of the evidence after hearing all of the evidence and the arguments of opposing parties.

PROPOSED AMENDMENTS TO RULES OF APPELLATE PROCEDURE

RAP 2.1

METHODS FOR SEEKING

REVIEW OF TRIAL COURT DECISION—GENERALLY

(a) Two Methods for Seeking Review of Trial Superior Court Decisions. The only methods for seeking review of decisions of the superior court by the Court of Appeals and by the Supreme Court are the two methods provided by these rules. . . .

(d) Method for Seeking Review of Decisions of Courts of Limited Jurisdiction. The only method for seeking direct review by the Supreme Court of a decision of a court of limited jurisdiction, without first obtaining a Superior Court decision under the RALJ, is by notice of appeal as provided for in Rule 4.3.

Comment

The title of this rule limits its application to trial court decisions. The amendment to subsection (a) clarifies that decisions of the superior court sitting as a trial court can be reviewed both by appeal and by discretionary review. (Review of decisions of the superior court sitting as an appellate court are dealt with in RAP 2.3(d).) The new subsection (d) to this rule provides for direct review of appealable decisions of courts of limited jurisdiction.

RAP 4.2

DIRECT REVIEW OF TRIAL SUPERIOR COURT DECISION BY SUPREME COURT

(a) Type of Cases Reviewed Directly. A party may seek review in the Supreme Court of a decision of a trial superior court

(b) Service and Filing of Statement of Grounds for Direct Review. A party seeking direct review of a trial superior court decision

(c) Form of Statement of Grounds for Direct Review. . . .

(1) Nature of the Case and Decision. A short statement of the substance of the case below and the basis for the trial superior court decision;

(e) Effect of Denial of Direct Review.

(1) Appealable Decision. If the Supreme Court denies direct review of a trial superior court decision appealable as a matter of right, the case will be transferred without prejudice and without costs to the Court of Appeals for determination.

(2) Discretionary Review. A motion for discretionary review in the Supreme Court of a trial superior court decision may be granted, denied, or transferred to the Court of Appeals for determination. If the Supreme Court denies a motion for discretionary review of a trial superior court decision, the moving party may not file the same motion in the Court of Appeals.

Comment

Changing "trial court" to "superior court" in this rule is necessary to distinguish the criteria and procedures governing direct review of superior court decisions from those governing direct review of decisions of courts of limited jurisdiction. The latter subject is dealt with in new Rule 4.3.

Reviser's note: The typographical error in the above material occurred in the copy filed by the agency and appears in the Register pursuant to the requirements of RCW 34.08.040.

Reviser's note: The spelling error in the above material occurred in the copy filed by the agency and appears in the Register pursuant to the requirements of RCW 34.08.040.

WSR 98-03-036
RULES OF COURT
STATE SUPREME COURT
[January 8, 1998]

IN THE MATTER OF THE ADOPTION OF THE) ORDER
AMENDMENTS TO RAP 2.1, RAP 4.2, NEW) NO. 25700-A-619
RAP 4.3 AND RAP 4.4)

The District and Municipal Court Judges' Association having recommended the adoption of the proposed amendments to RAP 2.1, RAP 4.2, New RAP 4.3 and RAP 4.4, and the Court having determined that the proposed amendments will aid in the prompt and orderly administration of justice and further determined that an emergency exists which necessitates an early adoption;

Now, therefore, it is hereby

ORDERED:

(a) That the amendments as attached hereto are adopted.

(b) That pursuant to the emergency provisions of GR 9(i), the amendments will be published expeditiously and become effective upon publication.

DATED at Olympia, Washington this 8th day of January, 1998.

Durham, C. J.

J. M. Dolliver

Madsen, J.

Smith, J.

Alexander, J.

Guy, J.

Talmadge, J.

Johnson, J.

Sanders, J.

PROPOSED RULES OF COURT
(Published for comment only)

[Pursuant to an order of the Supreme Court dated July 14, 1997, and in accordance with GR 9(i), the following proposed changes to the Rules of Court are published for comment by any interested party. Comments should be submitted to the Clerk of the Supreme Court by either U.S. mail or Internet e-mail no later than October 10, 1997. Comments may be sent to the following addresses: P.O. Box 40929, Olympia, WA 98504-0929, or Lisa.Bausch@courts.wa.gov. Comments submitted by e-mail may not exceed 1500 words.

The comments to the proposed court rule changes are included herein solely for information purposes.

Proposed adoptions to rules or sections of rules are: RAP 4.3 and 4.4.

Proposed amendments are: RAP 2.1 and 4.2.

Additions and deletions are indicated by underlining and lining out respectively, except where the entire rule is new.]

MISC.

RAP 4.3

[NEW RULE]

DIRECT REVIEW OF DECISIONS OF COURTS OF LIMITED JURISDICTION

(a) Prerequisites for Direct Review of Decisions of Courts of Limited Jurisdiction. A party may seek direct review in the Supreme Court of a decision of a court of limited jurisdiction if:

(1) The decision is a final decision appealable under RALJ 2.2; and

(2) The trial court enters a written statement setting forth its reasons for concluding that:

(a) The case involves a fundamental and urgent issue of statewide importance which requires a prompt and precedential determination;

(b) Delay in obtaining such a determination would cause significant detriment to any party or to the public interest; and

(c) The record of the proceedings in the court of limited jurisdiction adequately presents the issue.

(b) Service and Filing of Statement of Grounds for Direct Review. A party seeking direct review of a decision of a court of limited jurisdiction in the Supreme Court must within 15 days after filing the notice of appeal serve on all other parties and file in the Supreme Court a statement of grounds for direct review in the form provided in section (c).

(c) Form of Statement of Grounds for Direct Review. The statement should be captioned "Statement of Grounds for Direct Review," contain the title of the case as provided in rule 3.4, and contain under appropriate headings and in the order here indicated:

(1) *Nature of Case and Decision.* A short statement of the substance of the case below and the basis for the trial court decision:

(2) *Issues Presented for Review.* A statement of each issue the party intends to present for review; and

(3) *Grounds for Direct Review.* The grounds upon which the party contends direct review should be granted.

(4) *Appendix.* A copy of the trial court's written statement under ~~subsection Rule 4.3 (a)(2) of this rule.~~

The statement of grounds for direct review should not exceed 15 pages, exclusive of appendices and the title sheet.

(d) Answer to Statement of Grounds for Direct Review. A respondent may file an answer to the statement of grounds for direct review. The answer should be filed within 14 days after service of the statement on respondent. The answer should not exceed 15 pages, exclusive of appendices and the title sheet.

(e) Procedure. Upon receipt of the statement of grounds for direct review and answer, the Supreme Court will set the matter for preliminary consideration on the motion calendar of a commissioner or clerk. The commissioner or clerk may accept review or transfer the case to the Court of Appeals or to the Superior Court. Any transfer will be without prejudice and without costs. Title 17 relating to motions governs oral argument, decisions by ruling, and the means of objecting to the ruling of the commissioner or clerk.

Comment

The review criteria in the new subsection are adopted from RAP 4.2 (direct review of superior court decisions) and RCW 34.05.518 (direct

appellate court review of administrative decisions). Because the Supreme Court can transfer the appeal to the Court of Appeals, the phrase "prompt and precedential" is preferable to the reference in RAP 4.2 (n)(4) to "prompt and ultimate." The requirement of an adequate trial court record is designed to assure that the court will reach the issue thought to warrant direct review. The requirement of a written statement by the trial court is adopted from CR 54(c), and is intended to assure that there is in fact some serious basis for direct review.

Subsection (e) is patterned on RAP 4.2(e), which explains the effect of this court's denial of direct review of a superior court decision, and RAP 16.2 (c) & (e), which set forth a similar preliminary consideration role for the commissioner and clerk in original actions.

RAP 4.3 4.4

TRANSFER OF CASES BY SUPREME COURT

[No change in text]

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

Reviser's note: The typographical error in the above material occurred in the copy filed by the agency and appears in the Register pursuant to the requirements of RCW 34.08.040.

WSR 98-03-037

NOTICE OF PUBLIC MEETINGS
BUILDING CODE COUNCIL

[Memorandum—January 12, 1998]

The following is the schedule for the 1998 regular meetings of the State Building Code Council, as adopted on January 9, 1998. Any variations will be announced in advance. For further information, contact Krista Braaksma at (360) 753-5927.

January 8	Committees beginning at 9:00 a.m.*
January 9	Council Meeting beginning at 9:00 a.m. SeaTac Radisson Hotel 17001 Pacific Highway South SeaTac, WA
February	No Meetings Scheduled
March 12	Committees beginning at 9:00 a.m.*
March 13	Council Meeting beginning at 9:00 a.m. SeaTac Area (location to be announced)
April	No Meetings Scheduled
May 14	Committees beginning at 9:00 a.m.*
May 15	Council Meeting beginning at 9:00 a.m. Spokane Area (location to be announced)
June	No Meetings Scheduled
July 9	Committees beginning at 9:00 a.m.*
July 10	Council Meeting beginning at 9:00 a.m. SeaTac Area (location to be announced)
August	No Meetings Scheduled
September 17	Committees beginning at 9:00 a.m.*
September 18	Council Meeting beginning at 9:00 a.m. Spokane Area (location to be announced)
October	No Meetings Scheduled
November 12	Committees beginning at 9:00 a.m.
November 13	Council Meeting beginning at 9:00 a.m. SeaTac Area (location to be announced)
December	No Meetings Scheduled
	*Committee Meetings will be normally scheduled as follows:

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9:00 a.m. Legislative Committee
(as necessary**)
10:00 a.m. Building, Fire,
Plumbing Committee (Includes
Barrier-Free Code)
1:00 p.m. Mechanical, Ventilation,
Energy Committee
3:00 p.m. Economic Committee
(as necessary)
OR
Executive Committee
(as necessary)

** The Legislative Committee will hold conference call meetings as needed through session on Thursdays at 1:30 p.m. Monitor location is 906 Columbia Street S.W.

WSR 98-03-038
NOTICE OF PUBLIC MEETINGS
UNIVERSITY OF WASHINGTON
[Memorandum—January 12, 1998]

In accordance with RCW 42.30.075, the University of Washington is providing the following meeting schedule(s) for governing bodies of schools, colleges, departments and programs at the university that maintain regular meeting schedules at the University of Washington Public Records Office.

Department of Mathematics

Meeting Dates	Location	Time
January 13, 1998	C-36 Padelford	3:40 p.m.
February 3, 1998	C-36 Padelford	3:40 p.m.
March 3, 1998	C-36 Padelford	3:40 p.m.
April 7, 1998	C-36 Padelford	3:40 p.m.
May 5, 1998	C-36 Padelford	3:40 p.m.
June 2, 1998	C-36 Padelford	3:40 p.m.
September 23, 1998	C-36 Padelford	10:00 a.m.
October 13, 1998	C-36 Padelford	3:40 p.m.
November 3, 1998	C-36 Padelford	3:40 p.m.
December 1, 1998	C-36 Padelford	3:40 p.m.

WSR 98-03-039
NOTICE OF PUBLIC MEETINGS
UNIVERSITY OF WASHINGTON
[Memorandum—January 9, 1998]

In accordance with RCW 42.30.075, the University of Washington is providing the following meeting schedule(s) for governing bodies of schools, colleges, departments and programs at the university that maintain regular meeting schedules at the University of Washington Public Records Office. Please note that the notice for the School of Pharmacy is a revised notice supplementing the original notice forwarded to you on Friday, December 31, 1997.

**Electrical Engineering
Faculty Meetings**

Meeting Dates	Location	Time
Every Tuesday	108 EEB	2:30-3:30 p.m.

Miscellaneous

2nd and 4th
Tuesday of
every month

After January 26, we hope to be in 003 EEKSE (new building) but it is dependent on classroom services approval.

School of Pharmacy
Executive Committee Faculty Council

Meeting Dates	Location	Time
2nd Thursday of each month	H370 HSB	9 a.m.

Cabinet

Meeting Dates	Location	Time
4th Tuesday of each month	H370 HSB	2:30 p.m.

WSR 98-03-040
POLICY AND INTERPRETIVE STATEMENT
DEPARTMENT OF
LABOR AND INDUSTRIES
[Filed January 14, 1998, 4:30 p.m.]

Following is a list of Policy and Interpretive Statements issued by the department during November and December 1997. If you need additional information or have questions please call (360) 902-4206.

POLICY AND INTERPRETIVE STATEMENTS

Consultation and Compliance

WISHA Interim Operations Memorandum #97-11-A, "Delay in Methylene Chloride Enforcement," will remain in effect until March 1, 1998. This memorandum delays enforcement of the requirements of WAC 296-62-07470 to enable further education of employers regarding its requirements.

Contact: Teri Neely
Mailstop 4648
(360) 902-5503
Michael Silverstein
Assistant Director

Insurance Services

Processing Overpayments #2.81. This policy provides guidance to claim management staff when processing a benefit overpayment.

Contact: Linda Norris
Mailstop 4311
(360) 902-5003
Doug Connell
Assistant Director

Paying Loss of Earning Power Compensation #5.81. This policy provides guidance to claim management staff when determining eligibility for and calculation of loss of earning power compensation.

Contact: Linda Norris
Mailstop 4311
(360) 902-5003

MISC.

Doug Connell
Assistant Director

Coverage for Musicians and Entertainers #61.01. This policy provides guidance to employer services staff when determining state fund coverage for musicians and entertainers.

Contact: Linda Norris
Mailstop 4311
(360) 902-5003
Doug Connell
Assistant Director

Determining Coverage for Law Enforcement Officers and Firefighters #61.02. This policy provides guidance to employer services staff when determining state fund coverage for law enforcement officers and firefighters.

Contact: Linda Norris
Mailstop 4311
(360) 902-5003
Doug Connell
Assistant Director

Opening Industrial Insurance Accounts for Unregistered Firms #63.68. This policy provides guidance to department staff when opening industrial insurance accounts for the unregistered firm.

Contact: Linda Norris
Mailstop 4311
(360) 902-5003
Doug Connell
Assistant Director

Collection timelines for Major Legal Actions #72.01. This policy provides guidance to revenue officers when establishing timeframes for issuance of major legal actions.

Contact: Linda Norris
Mailstop 4311
(360) 902-5003
Doug Connell
Assistant Director

Payment Agreements for Delinquent Liabilities #72.03. This policy provides guidance to department staff when entering into a payment agreement with an employer to collect delinquent liabilities.

Contact: Linda Norris
Mailstop 4311
(360) 902-5003
Doug Connell
Assistant Director

Verifying an Estimate of Employer Hours #72.04. This policy provides guidance to revenue officers to confirm employment activity at businesses or reduce estimates to more accurately reflect proper receivables.

Contact: Linda Norris
Mailstop 4311
(360) 902-5003
Doug Connell
Assistant Director

Collecting Debts on Public Works Projects #72.05. This policy provides guidance to department staff for collection of overdue premiums from public entities.

Contact: Linda Norris
Mailstop 4311
(360) 902-5003
Doug Connell
Assistant Director

Marie Myerchin-Redifer
Rules Coordinator

**WSR 98-03-042
NOTICE OF PUBLIC MEETINGS
INTERAGENCY COMMITTEE
FOR OUTDOOR RECREATION**

[Memorandum—January 8, 1998]

At its regular quarterly meeting on September 25, 1997, the Interagency Committee for Outdoor Recreation adopted the following meeting schedule for 1998:

February 5, 1998	Thursday	SeaTac (Large Auditorium)
March 12-13, 1998	Thursday-Friday	Olympia (NRB Room 172)
July 16-17, 1998	Thursday-Friday	Kitsap County
September 24-25, 1998	Thursday-Friday	Olympia (NRB Room 172)
November 19-20, 1998	Thursday-Friday	Olympia (NRB Room 172)

**WSR 98-03-043
RULES COORDINATOR
INTERAGENCY COMMITTEE
FOR OUTDOOR RECREATION**

[Filed January 15, 1998, 9:31 a.m.]

In accordance with RCW 34.05.310, this memorandum is to inform you that the rules coordinator for the Interagency Committee for Outdoor Recreation is Greg Lovelady, Planning Services, Natural Resources Building, 2nd Floor East, P.O. Box 40917, Olympia, WA 98504-0917, phone (360) 902-3008, FAX (360) 902-3026, e-mail gregl@iac.wa.gov.

Laura Eckert Johnson
Director

**WSR 98-03-053
NOTICE OF PUBLIC MEETINGS
COMMISSION ON
HISPANIC AFFAIRS**

[Memorandum—January 16, 1998]

MEETING SCHEDULE FOR 1998

January 9-10*	Olympia
March 28	Yakima
May 23	Seattle
September 26	Walla Walla
November 14	Bellingham
December 12	Wenatchee

MISC.

WSR 98-03-056
NOTICE OF PUBLIC MEETINGS
GAMBLING COMMISSION
 [Memorandum—January 16, 1998]

REVISED

1998 COMMISSION MEETING SCHEDULE

- January 8 and 9 Skamania Lodge
Exit 44, Interstate 84
Stevenson, WA 98648
(509) 427-7700
- February 12 and 13 Ramada Governor House
621 Capitol Way South
Olympia, WA 98501
(360) 352-7700
- March 12 and 13 Holiday Inn Sea-Tac
17338 International Boulevard
SeaTac, WA 98188
(206) 248-1000
- April 9 and 10 The Inn at Semi-ah-moo
9565 Semiahmoo Parkway
Blaine, WA 98230-9326
(360) 371-2000
- ~~May 14 and 15 Cavanaugh's River Inn~~
CANCELLED
- June 11 and 12 Maple Hall Convention Center
104 Commercial Street
*(behind totem pole @ south
end of Main Street)*
La Conner Country Inn
(360) 466-3101 for
sleeping rooms
- July 9 and 10* ~~Icicle Inn/Best Western*~~
DoubleTree Inn
322 North Spokane Falls Court
Spokane, WA 99201-0165
(509) 455-9600
- August 13 and 14 Inn at Gig Harbor
3211 56th N.W.
Gig Harbor, WA 98335
(253) 851-6665
- September 10 and 11 DoubleTree Inn/Yakima Valley
1507 North First Street
Yakima, WA 98901
(509) 248-7850
- October 8 and 9 Silverdale on the Bay Hotel
3037 Bucklin Hill Road
Silverdale, WA 98310
(360) 698-1000
- November 12 and 13 Best Western Greenwood Lodge
7801 N.E. Greenwood Drive
(I-205 exit #30)
Vancouver, WA 98662
(360) 254-3100

*Please note the new location for July's meeting.
 No meeting in December.
 Contact: Susan Green at (360) 438-7654 ext. 302.

WSR 98-03-060
NOTICE OF PUBLIC MEETINGS
DEPARTMENT OF ECOLOGY
 (Resource Damage Assessment Committee)
 [Memorandum—January 20, 1998]

Pursuant to WAC 173-183-230 through 173-183-260, and 173-183-820 through 173-183-870, regular meetings of the Washington State Resource Damage Assessment Committee during the remainder of 1998 will be held as follows:

Date	Time	Room
Wednesday, February 11	9 a.m.	2S-21
Wednesday, March 11	9 a.m.	1S-16
Wednesday, April 8	9 a.m.	1S-17
Wednesday, May 13	9 a.m.	1S-17
Wednesday, June 10	9 a.m.	1S-17
Wednesday, July 8	9 a.m.	1S-17
Wednesday, August 12	9 a.m.	1S-17
Wednesday, September 9	9 a.m.	1S-17
Wednesday, October 14	9 a.m.	1S-17
Thursday, November 12	9 a.m.	1S-17
Wednesday, December 9	9 a.m.	1S-17

All meetings will be at the Department of Ecology headquarters building, located at 300 Desmond Drive in Lacey, Washington. For more information, contact Paul Heimowitz at (360) 407-6972.

WSR 98-03-061
NOTICE OF PUBLIC MEETINGS
SKAGIT VALLEY COLLEGE
 [Memorandum—January 20, 1998]

NOTICE OF SPECIAL MEETING

BOARD OF TRUSTEES
 SKAGIT VALLEY COLLEGE
 COMMUNITY COLLEGE DISTRICT NO. 4

Chairperson, Debbie Aldrich, has called a special meeting of the board of trustees to be held on **Saturday, January 17, 1998, 9:00 a.m. at the Law Offices of Stiles & Stiles Inc., located at 925 Metcalf Street, Sedro Woolley, WA.** This meeting is being held as a work session and no action will be taken on any items discussed. The board of trustees may adjourn to executive session after the open portion of the meeting, if deemed necessary.

WSR 98-03-062
NOTICE OF PUBLIC MEETINGS
UNIVERSITY OF WASHINGTON
 [Memorandum—January 15, 1998]

In accordance with RCW 42.30.075, the University of Washington is providing the enclosed meeting schedule(s) for governing bodies of schools, colleges, departments and programs at the university that maintain regular meeting schedules at the University of Washington Public Records Office.

MISC.

Statistics

Meeting Dates	Location	Time
Monthly, Monday	C301	12:30

This is the department faculty meeting which meets on average of once per month on Mondays. The dates vary but is usually the first Monday of the month.

WSR 98-03-063
NOTICE OF PUBLIC MEETINGS
EASTERN WASHINGTON UNIVERSITY
 [Memorandum—January 20, 1998]

BOARD OF TRUSTEES
 January 23, 1998, 9:00 a.m.
 Cheney Campus
 Pence Union Building
 Room 263-65

Breakfast, which is open to the public, will be served to board members prior to the meeting at 8:00 a.m. in the PUB Board Room.

Eastern Washington University strives to satisfy all requests for special access needs for persons with disabilities. Requests for such accommodation are welcome and may be made by calling President's Office, 359-2371.

WSR 98-03-064
NOTICE OF PUBLIC MEETINGS
CRIMINAL JUSTICE
TRAINING COMMISSION
 [Memorandum—January 15, 1998]

At the December 3, 1997, meeting of the commission, the dates set for meeting in 1998 were established as:

Wednesday	March 11
Wednesday	June 10
Wednesday	September 9
Wednesday	December 9

The commission will be meeting at the Washington State Training and Conference Center located at 19010 First Avenue South, Seattle, WA 98148.

If you have any questions or require further information, please contact (206) 439-3740 ext. 237.

WSR 98-03-065
NOTICE OF PUBLIC MEETINGS
PENINSULA COLLEGE
 [Memorandum—January 15, 1998]

The board of trustees of Peninsula College, District 1, Port Angeles, Washington will cancel the regular meeting of February 10, 1998, and reschedule a regular meeting for February 11, 1998. The meeting will take place in the Board Room at Peninsula College in Port Angeles, Washington.

MISC.

WSR 98-03-087

AGENDA

DEPARTMENT OF AGRICULTURE

[Filed January 21, 1998, 11:41 a.m.]

Washington State Department of Agriculture
Semi-Annual Rules Agenda

Washington State Department of Agriculture - Semi-Annual Rules Agenda

January 31, 1997

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Approximate
CR101 Filing
DateApproximate
Adoption
Date

Chapter

Subject/ Contact Person

Chapter	Subject/ Contact Person	Approximate CR101 Filing Date	Approximate Adoption Date
WAC 16-20, WAC 16-21, WAC 16-22, and WAC 16-23	Custom slaughter plants, slaughterers, handling of carcasses, custom meat handling establishments and custom meat facilities Contact: Verne Hedlund, Program Mgr. Phone: (360) 902-1860	March 1998	August 1998
WAC 16-96	Production Record Brands on Cattle Contact: Julie Sandberg, Assistant Director Phone (360) 902-1851	January 1998	July 1998
WAC 16-101X	Penalties - Degrades for dairy producers and processors Contact: Claudia Coles, Compliance Phone: (360) 902-1883	February 1998	June 1998
WAC 16-102	Butterfat testing of milk Contact: Verne Hedlund, Program Mgr. Phone: (360) 902-1860	February 1998	August 1998
WAC 16-129	Labeling and advertising of products resembling genuine dairy products Contact: Verne Hedlund, Program Mgr. Phone: (360) 902-1860	January 1998	June 1998
WAC 16-154	Organic crop production standards - fees Contact: Miles McEvoy, Program Mgr. Phone: (360) 902-1924	January 1998	May 1998
WAC 16-167	Intrastate commerce in foods - adoption of latest federal regulations under Title 21 CFR Contact: Verne Hedlund, Program Mgr. Phone: (360) 902-1860	February 1998	March 1998 (Expedited)
WAC 16-167	Intrastate commerce in foods - Food Processing Establishment - Inspection Criteria Contact: Mike Donovan, Program Mgr. Phone: (360) 902-1883	June 1988	December 1988
WAC 16-201	Secondary containment of bulk storage fertilizers Contact: Cliff Weed, Program Mgr. Phone: (360) 902-2036	November 1997	May 1998

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Washington State Department of Agriculture - Semi-Annual Rules Agenda

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Chapter	Subject/ Contact Person	Approximate CR101 Filing Date	Approximate Adoption Date
WAC 16-212	Grain Inspection Fees Contact: Randy Dieke, Program Mgr. (360) 902-1921	February 1998	June 1998
WAC 16-223	Incorporate federal changes Worker Protection Standards Contact: Ann Wick, Program Mgr. (360) 902-2051	Dependent on EPA action	Dependent on EPA action
WAC 16-228	General rules relating to pesticide use Contact: Cliff Weed, Program Mgr. Phone: (360) 902-2036	February 1998	July 1998
WAC 16-228	Pesticide Penalty Matrix Contact: Cliff Weed, Program Mgr. Phone: (360) 902-2036	February 1998	November 1998
WAC 16-229	Secondary and Operational Areas Containment of Bulk Pesticides Contact: Cliff Weed, Program Mgr. Phone: (360) 902-2036	February 1998	December 1998
WAC 16-230	Restricted use herbicides in Benton, Franklin and Walla Walla counties Contact: Cliff Weed, Program Mgr. Phone: (360) 902-2036	September 1997	April 1998
WAC 16-354	Hop rootstock certification standards Contact: Tom Wessels, Program Mgr. (360) 902-1984	December 1997	April 1998
WAC 16-400	Horticultural Regulatory and Hourly Inspection Fees Contact: Jim Quiqley, Program Mgr. Phone: (360) 902-1833	February 1998	June 1998
WAC 16-470	Japanese beetle quarantine Contact: Diane Dolstad, Program Mgr. (360) 902-2071	March 1998	August 1998
WAC 16-470	Apple Maggot Quarantine Contact: Diane Dolstad, Program Mgr. (360) 902-2071	January 1998	June 1998

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Washington State Department of Agriculture - Semi-Annual Rules Agenda

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Date

Chapter

Subject/ Contact Person

Chapter	Subject/ Contact Person	Approximate CR101 Filing Date	Approximate Adoption Date
WAC 16-471	Chrysanthemum White Rust Quarantine Contact: Tom Wessels, Program Mgr. (360) 902-1984	March 1998	August 1998
WAC 16-488	Blueberry quarantine Contact: Diane Dolstad, Program Mgr. (360) 902-2071	June 1998	November 1998
WAC 16-497	Hop disease quarantine Contact: Tom Wessels, Program Mgr. (360) 902-1984	December 1997	April 1998
WAC 16-532	Hop Commission credit for promotion program Contact: Walter Swenson, Programs Administrator Phone: (360) 902-1928	September 1997	April 30, 1998
WAC 16-602	Apiaries Contact: Diane Dolstad, Program Mgr. (360) 902-2071	May 1998	September 1998
WAC 16-604	Public livestock markets Contact: Julie Sandberg, Assistant Director (360) 902-1851	January 1998	May 1998
WAC 16-605A	Certified feed lots -- Audit fees Contact: Julie Sandberg, Assistant Director (360) 902-1851	January 1998	May 1998
WAC 16-608	Special Livestock Sales Contact: Julie Sandberg, Assistant Director (360) 902-1851	January 1998	May 1998
WAC 16-620	Brand Inspection Program Contact: Julie Sandberg, Assistant Director (360) 902-1851	February 1998	June 1998
WAC 16-657	Weights/Measures--Motor Fuel Sign Requirements Contact: Julie Sandberg, Assistant Director (360) 902-1851	January 1998	July 1998

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Washington State Department of Agriculture - Semi-Annual Rules Agenda

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Chapter

Subject/ Contact Person

Chapter	Subject/ Contact Person	Approximate CR101 Filing Date	Approximate Adoption Date
WAC 16-675	Metrology Lab Fees Contact: Julie Sandberg, Assistant Director (360) 902-1851	January 1998	July 1998
WAC 16-694	Commission Merchants-- License Fees Contact: Julie Sandberg, Assistant Director (360) 902-1851	January 1998	July 1998
WAC 16-752, WAC 16-300	Noxious weed seed and plant quarantine Contact: Diane Dolstad, Program Mgr. (360) 902-2071	February 1998	July 1998
WAC 16-752	State noxious weed list and schedule of monetary penalties Contact: Diane Dolstad, Program Mgr. (360) 902-2071	February 1998	July 1998
WAC 16-752	Purple loosestrife quarantine Contact: Diane Dolstad, Program Mgr. (360) 902-2071	February 1998	July 1998
New Rules	Seed potato exclusion districts Contact: Tom Wessels, Program Mgr. (360) 902-1984	October 1997	May 1998
New Rules	Nursery plant stock labeling Contact: Tom Wessels, Program Mgr. (360) 902-1984	May 1998	October 1998
New Rules	Define "freedom from infestation" and relevant nursery program operations Contact: Tom Wessels, Program Mgr. (360) 902-1984	February 1998	July 1998
New Rules	AFDO Model Food Salvage Contact: Verne Hedlund, Program Mgr. Phone: (360) 902-1860	April 1998	October 1998

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Washington State Department of Agriculture - Semi-Annual Rules Agenda

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Chapter	Subject/ Contact Person	Approximate CR101 Filing Date	Approximate Adoption Date
New Rules	Purple and Yellow Nutsedge Quarantine Contact: Diane Dolstad, Program Mgr. (360) 902-2071	April 1998	September 1998
New Rules	Garlic Grown for Production of Certified Seed Contact: Tom Wessels, Program Mgr. (360) 902-1984	January 1998	June 1998
New Rules	Requirements for Water used in Food Processing Contact: Mike Donovan, Program Mgr. Phone: (360) 902-1883	May 1998	November 1998

For more information contact Dannie McQueen, Rules Coordinator, Washington State Department of Agriculture, P.O. Box 42560, Olympia, WA 98504-2560, phone (360) 902-1809.

William E. Brookreson
Assistant Director

Subject: The commission issued an advisory opinion in response to the request from Heather Young, RN, PhD, ARNP, FAAN, ERA Care, Seattle, Washington and Bonnie Blachly, RN, Ida Culver House, Seattle, Washington.

Effective Date: September 19, 1997.

Contact Person: Jeanne E. Vincent, RN, MS, Associate Nurse Practice Manager, Department of Health, Nursing Care Commission, P.O. Box 47864, Olympia, WA 98504-7864, (360) 664-2881.

WSR 98-03-091

**INTERPRETIVE STATEMENT
DEPARTMENT OF HEALTH**

[Filed January 21, 1998, 11:47 a.m.]

NOTICE OF ADOPTION OF INTERPRETIVE STATEMENTS

Issuing Entity: Washington State Nursing Care Quality Assurance Commission.

Title: "Adequacy of the proposed anesthesia provider coverage when RNs provide post-op epidural analgesia."

Subject: The commission issued an advisory opinion in response to the request from Cheri Hollenback, RNC, MN, Shriners Hospitals for Children, Spokane, Washington.

Title: 1. "May registered nurses, and licensed practical nurses under the supervision of registered nurses, use a physician-ordered sliding dosage scale for insulin injections, which may, also at the direction of the physician, require the input of parents for dosage adjustment throughout a given school day?"

2. "What types of parameters should be included when nursing practice guidelines and protocols for care are developed?"

Subject: The commission issued an advisory opinion in response to the request for Aimee Denver, RN, School Nurse, Seattle, Washington; Renae Harris, Instructional Support Administrator, Mercer Island School District, Mercer Island, Washington; Jeff and Kristen Kuhns, Mercer Island, Washington.

Title: "May a licensed/registered nurse chart routine medications used one signature to indicate all routine medications were given at one time (modified charting by exception for routine medications)?"

WSR 98-03-092

**INTERPRETIVE STATEMENT
DEPARTMENT OF HEALTH**

[Filed January 21, 1998, 11:48 a.m.]

NOTICE OF ADOPTION OF INTERPRETIVE STATEMENT

Title: 1. "Can a nurse accept a faxed order that is not signed; can they accept an order signed in the physician office, but not in the facility?"

2. "Is a physician order required when a resident specifies a DNR advanced directive?"

Issuing Entity: Washington State Nursing Care Quality Assurance Commission.

Subject: The commission issued an advisory opinion in response to the request from Jane Burster, Medical Record Consultant, Tacoma, Washington.

Effective Date: December 12, 1997.

Contact Person: Jeanne E. Vincent, RN, MS, Associate Nurse Practice Manager, Department of Health, Nursing Care Commission, P.O. Box 47864, Olympia, WA 98504-7864, (360) 664-2881.

WSR 98-03-093

**POLICY STATEMENT
DEPARTMENT OF HEALTH**

[Filed January 21, 1998, 11:50 a.m.]

NOTICE OF POLICY ADOPTION

MISC.

Title: Review of Investigations by Consulting Board Member Recommending Disciplinary Action or Further Investigation.

Issuing Entity: Washington State Podiatric Medical Board.

Subject: The board has modified its policy to adjust the review time for investigative cases, participating in settlement conferences, and responding to issues pertaining to cases on compliance. Identifies that the original consulting board member (if still on the board) will serve throughout the compliance period.

Effective Date: May 23, 1997.

Contact Person: Arlene A. Robertson, Program Manager, Department of Health, Board of Osteopathic Medicine and Surgery, P.O. Box 47866, Olympia, WA 98504-7866, (360) 664-3722.

WSR 98-03-094
POLICY STATEMENT
DEPARTMENT OF HEALTH
[Filed January 21, 1998, 11:51 a.m.]

NOTICE OF ADOPTION OF POLICY STATEMENT

Title of Policy: Below Threshold Determination Criteria.

Issuing Entity: Board of Nursing Home Administrators.

Subject Matter: Policy statement providing criteria and framework for the consistent identification of complaints that fall below the threshold level established by the Board of Nursing Home Administrators.

Effective Date: August 22, 1997.

Contact Person: Barbara A. Hayes, Program Manager, Department of Health, Board of Nursing Home Administrators, P.O. Box 47869, Olympia, WA 98504-7869, (360) 664-3245, FAX (360) 664-0412, Internet address bah0303@hub.doc.wa.gov.

MISC.



Table of WAC Sections Affected

KEY TO TABLE

This table covers the current calendar year through this issue of the Register and should be used to locate rules amended, adopted, or repealed subsequent to the publication date of the latest WAC or Supplement.

Symbols:

- AMD = Amendment of existing section
- A/R = Amending and recodifying a section
- DECOD = Decodification of an existing section
- NEW = New section not previously codified
- OBJEC = Notice of objection by Joint Administrative Rules Review Committee
- PREP = Preproposal comments
- RE-AD = Readoption of existing section
- RECOD = Recodification of previously codified section
- REP = Repeal of existing section
- RESCIND = Rescind previous emergency rule
- REVIEW = Review of previously adopted rule

Suffixes:

- C = Continuance of previous proposal
 - E = Emergency action
 - P = Proposed action
 - S = Supplemental notice
 - W = Withdrawal of proposed action
 - XA = Expedited adoption
 - XR = Expedited repeal
- Note: These filings will appear in a special section of Issue 97-21
- No suffix means permanent action

WAC # shows the section number under which an agency rule is or will be codified in the Washington Administrative Code.

WSR # shows the issue of the Washington State Register where the document may be found; the last three digits identify the document within the issue.

WAC #	ACTION	WSR #	WAC #	ACTION	WSR #	WAC #	ACTION	WSR #
16-168-010	AMD	98-03-089	51-11-1004	AMD	98-03-003	51-26-0909	REP	98-02-055
16-168-020	AMD	98-03-089	51-11-1005	AMD	98-03-003	51-26-1000	REP	98-02-055
16-168-030	AMD	98-03-089	51-11-1006	AMD	98-03-003	51-26-1004	REP	98-02-055
16-168-040	AMD	98-03-089	51-11-1007	AMD	98-03-003	51-26-1007	REP	98-02-055
16-168-050	AMD	98-03-089	51-11-1008	AMD	98-03-003	51-26-1009	REP	98-02-055
16-168-060	AMD	98-03-089	51-11-1009	AMD	98-03-003	51-26-1020	REP	98-02-055
16-168-070	AMD	98-03-089	51-11-1010	REP	98-03-003	51-26-1301	REP	98-02-055
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16-168-090	AMD	98-03-089	51-11-1132	AMD	98-03-003	51-26-1802	REP	98-02-055
16-168-100	AMD	98-03-089	51-11-1133	AMD	98-03-003	51-26-1803	REP	98-02-055
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16-532-0406	REP-P	98-02-073	51-11-1331	AMD	98-03-003	51-26-1830	REP	98-02-055
16-532-0408	REP-P	98-02-073	51-11-1334	AMD	98-03-003	51-26-1840	REP	98-02-055
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51-11-0502	AMD	98-03-003	51-11-1701	AMD	98-03-003	51-30-003	REP	98-02-054
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51-11-0626	AMD	98-03-003	51-26-004	REP	98-02-055	51-30-0220	REP	98-02-054
51-11-0627	AMD	98-03-003	51-26-008	REP	98-02-055	51-30-0300	REP	98-02-054
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51-11-0629	AMD	98-03-003	51-26-0310	REP	98-02-055	51-30-0304	REP	98-02-054
51-11-0630	AMD	98-03-003	51-26-0315	REP	98-02-055	51-30-0305	REP	98-02-054
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Table of WAC Sections Affected

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51-40-1002	NEW	98-02-054	51-42-1312	NEW	98-02-056	51-46-0600	NEW	98-02-055
51-40-1003	NEW	98-02-054	51-42-1401	NEW	98-02-056	51-46-0603	NEW	98-02-055
51-40-1004	NEW	98-02-054	51-44-001	NEW	98-02-053	51-46-0604	NEW	98-02-055
51-40-1007	NEW	98-02-054	51-44-002	NEW	98-02-053	51-46-0608	NEW	98-02-055
51-40-1091	NEW	98-02-054	51-44-003	NEW	98-02-053	51-46-0609	NEW	98-02-055
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51-40-1110	NEW	98-02-054	51-44-5200	NEW	98-02-053	51-46-0815	NEW	98-02-055
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