

(codified as WAC 172-190-080), filed 3/3/75.]

WAC 172-190-090 Review proceeding available. (1) Any person objecting to a denial of a request for any university record relating to a student, or any student who contests whether the transfer of any university record relating to him or her is permitted under these regulations, may petition for prompt review of the denial or written objection to transfer. The written request shall:

- (a) Be served on the public records officer provided for in chapter 172-09 WAC;
- (b) Demand prompt review; and
- (c) In the case of objection to transfer, specifically reference the party to whom he or she does not want the record transferred and contain a written statement by the record custodian denying the person's request.

Upon receipt of a proper written objection to transfer of a student record, the university public records officer shall cause the records to not be transferred pending outcome of the proceeding provided for in these regulations.

(2) Within ten days after receipt of the written request by a person petitioning for prompt review of a decision by a custodian of student records, the president of the university or any authorized designees, which for the purposes of this section may include any vice-president of the university, shall consider the petition.

(3) The president or authorized designee may at the end of the ten day period either meet the objecting party's objection and advise the party of the same in writing, or in the alternative, set the matter up for a proceeding before a presiding officer designated by the president or the president's designee. The proceeding shall be conducted within thirty days after the objecting party served the objections on the university's public records officer and shall be a brief adjudicative proceeding, as that term is defined in RCW 34.05.482 through 34.05.494 and shall be conducted as provided for therein. The president or authorized designee shall determine the time and place for the proceeding. At the proceeding, the objecting party shall further explain and identify the exact purpose for seeking the record which has been denied or why he or she has lodged objections to transfer of a student record. Failure by the person requesting the review to appear at the brief adjudicative proceeding shall be deemed a waiver of that person's right to insist upon completion of the review of the request.

(4) During the proceeding conducted by the president, an authorized designee, or by anyone appointed by the president or authorized designee, the person conducting the proceeding shall consider the obligation of the university to fully comply with the Family Educational Rights and Privacy Act, but shall also consider the exemptions provided in the course of these regulations. A record shall be made of the proceeding by mechanical transcriptions or any other means satisfactory to the university.

(5) Within ten days after the hearing has occurred, the president, or authorized designee, or the hearing officer appointed to conduct the informal hearing shall provide the objecting party with a written decision, which decision shall be binding upon the university and upon the objecting party.

[Statutory Authority: RCW 28B.35.120(12). 92-02-053, § 172-190-090, filed 12/30/91, effective 1/30/92; Order 75-1 § 172-08-090 (codified as WAC 172-190-090), filed 3/3/75.]

WAC 172-190-100 Right of students to register objections. Any student who objects to the accuracy or truthfulness of any information contained in any Eastern Washington University education records or portion thereof that is related to the student may submit to the university's public records officer his or her written views regarding the same, which written objection shall then be included in the education records: *Provided*, That no student has any right to post objections to academic grades and have the same appear on his or her academic transcript.

[Statutory Authority: RCW 28B.35.120(12). 92-02-053, § 172-190-100, filed 12/30/91, effective 1/30/92; Order 75-1, § 172-08-100 (codified as WAC 172-190-100), filed 3/3/75.]

Title 173 WAC ECOLOGY, DEPARTMENT OF

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Chapter 173-16 WAC

SHORELINE MANAGEMENT ACT GUIDELINES FOR DEVELOPMENT OF MASTER PROGRAMS

WAC

173-16-064 Ocean management.

WAC 173-16-064 Ocean management. (1) Purpose and intent. This section implements the Ocean Resources Management Act, (RCW 43.143.005 through 43.143.030) enacted in 1989 by the Washington state legislature. The law requires the department of ecology to develop guidelines and policies for the management of ocean uses and to serve as the basis for evaluation and modification of local shoreline management master programs of coastal local governments in Jefferson, Clallam, Grays Harbor, and Pacific counties. The guidelines are intended to clarify state shoreline management policy regarding use of coastal resources, address evolving interest in ocean development and prepare state and local agencies for new ocean developments and activities.

(2) Geographical application. The guidelines apply to Washington's coastal waters from Cape Disappointment at the mouth of the Columbia River north one hundred sixty miles to Cape Flattery at the entrance to the Strait of Juan De Fuca including the offshore ocean area, the near shore area under state ownership, shorelines of the state, and their adjacent uplands. Their broadest application would include an area seaward two hundred miles (RCW 43.143.020) and landward to include those uplands immediately adjacent to land under permit jurisdiction for which consistent planning is required under RCW 90.58.340. The guidelines address uses occurring in Washington's coastal waters, but not impacts generated from activities offshore of Oregon, Alaska, California, or British Columbia or impacts from Washington's offshore on the Strait of Juan de Fuca or other inland marine waters.

(3) Ocean uses defined. Ocean uses are activities or developments involving renewable and/or nonrenewable resources that occur on Washington's coastal waters and includes their associated off shore, near shore, inland marine, shoreland, and upland facilities and the supply, service, and distribution activities, such as crew ships,

circulating to and between the activities and developments. Ocean uses involving nonrenewable resources include such activities as extraction of oil, gas and minerals, energy production, disposal of waste products, and salvage. Ocean uses which generally involve sustainable use of renewable resources include commercial, recreational, and tribal fishing, aquaculture, recreation, shellfish harvesting, and pleasure craft activity.

(4) Relationship to existing management programs. These guidelines augment existing requirements of the Shoreline Management Act, chapter 90.58 RCW, and those chapters in Title 173 of the Washington Administrative Code that implement the act. They are not intended to modify current resource allocation procedures or regulations administered by other agencies, such as the Washington department of fisheries management of commercial, recreational, and tribal fisheries. They are not intended to regulate recreational uses or currently existing commercial uses involving fishing or other renewable marine or ocean resources. Every effort will be made to take into account tribal interests and programs in the guidelines and master program amendment processes. After inclusion in the state coastal zone management program, these guidelines and resultant master programs will be used for federal consistency purposes in evaluating federal permits and activities in Washington's coastal waters. Participation in the development of these guidelines and subsequent amendments to master programs will not preclude state and local government from opposing the introduction of new uses, such as oil and gas development.

These and other statutes, documents, and regulations referred to or cited in these rules may be reviewed at the department of ecology, headquarters in Lacey, Washington, for which the mailing address is Mailstop PV-11, Olympia, WA 98504.

(5) Regional approach. The guidelines are intended to foster a regional perspective and consistent approach for the management of ocean uses. While local governments may have need to vary their programs to accommodate local circumstances, local government should attempt and the department will review local programs for compliance with these guidelines and chapter 173-16 WAC: Shoreline Management Act guidelines for development of master programs. It is recognized that further amendments to the master programs may be required to address new information on critical and sensitive habitats and environmental impacts of ocean uses or to address future activities, such as oil development. In addition to the criteria in RCW 43.143.030, these guidelines apply to ocean uses until local master program amendments are adopted. The amended master program shall be the basis for review of an action that is either located exclusively in, or its environmental impacts confined to, one county. Where a proposal clearly involves more than one local jurisdiction, the guidelines shall be applied and remain in effect in addition to the provisions of the local master programs.

(6) Permit criteria: Local government and the department may permit ocean or coastal uses and activities as a substantial development, variance or conditional use

only if the criteria of RCW 43.143.030(2) listed below are met or exceeded:

(a) There is a demonstrated significant local, state, or national need for the proposed use or activity;

(b) There is no reasonable alternative to meet the public need for the proposed use or activity;

(c) There will be no likely long-term significant adverse impacts to coastal or marine resources or uses;

(d) All reasonable steps are taken to avoid and minimize adverse environmental impacts, with special protection provided for the marine life and resources of the Columbia River, Willapa Bay and Grays Harbor estuaries, and Olympic national park;

(e) All reasonable steps are taken to avoid and minimize adverse social and economic impacts, including impacts on aquaculture, recreation, tourism, navigation, air quality, and recreational, commercial, and tribal fishing;

(f) Compensation is provided to mitigate adverse impacts to coastal resources or uses;

(g) Plans and sufficient performance bonding are provided to ensure that the site will be rehabilitated after the use or activity is completed; and

(h) The use or activity complies with all applicable local, state, and federal laws and regulations.

(7) General ocean uses guidelines. The following guidelines apply to all ocean uses, their service, distribution, and supply activities and their associated facilities that require shoreline permits.

(a) Ocean uses and activities that will not adversely impact renewable resources shall be given priority over those that will. Correspondingly, ocean uses that will have less adverse impacts on renewable resources shall be given priority over uses that will have greater adverse impacts.

(b) Ocean uses that will have less adverse social and economic impacts on coastal uses and communities should be given priority over uses and activities that will have more such impacts.

(c) When the adverse impacts are generally equal, the ocean use that has less probable occurrence of a disaster should be given priority.

(d) The alternatives considered to meet a public need for a proposed use should be commensurate with the need for the proposed use. For example, if there is a demonstrated national need for a proposed use, then national alternatives should be considered.

(e) Chapter 197-11 WAC (SEPA rules) provides guidance in the application of the permit criteria and guidelines of this section. The range of impacts to be considered should be consistent with WAC 197-11-060 (4)(e) and 197-11-792 (2)(c). The determination of significant adverse impacts should be consistent with WAC 197-11-330(3) and 197-11-794. The sequence of actions described in WAC 197-11-768 should be used as an order of preference in evaluating steps to avoid and minimize adverse impacts.

(f) Impacts on commercial resources, such as the crab fishery, on noncommercial resources, such as environmentally critical and sensitive habitats, and on coastal uses, such as loss of equipment or loss of a fishing season, should be considered in determining compensation

to mitigate adverse environmental, social and economic impacts to coastal resources and uses.

(g) Allocation of compensation to mitigate adverse impacts to coastal resources or uses should be based on the magnitude and/or degree of impact on the resource, jurisdiction and use.

(h) Rehabilitation plans and bonds prepared for ocean uses should address the effects of planned and unanticipated closures, completion of the activity, reasonably anticipated disasters, inflation, new technology, and new information about the environmental impacts to ensure that state of the art technology and methods are used.

(i) Local governments should evaluate their master programs and select the environment(s) for coastal waters that best meets the intent of chapter 173-16 WAC, these guidelines and chapter 90.58 RCW.

(j) Ocean uses and their associated coastal or upland facilities should be located, designed and operated to prevent, avoid, and minimize adverse impacts on migration routes and habitat areas of species listed as endangered or threatened, environmentally critical and sensitive habitats such as breeding, spawning, nursery, foraging areas and wetlands, and areas of high productivity for marine biota such as upwelling and estuaries.

(k) Ocean uses should be located to avoid adverse impacts on proposed or existing environmental and scientific preserves and sanctuaries, parks, and designated recreation areas.

(l) Ocean uses and their associated facilities should be located and designed to avoid and minimize adverse impacts on historic or culturally significant sites in compliance with chapter 27.34 RCW. Permits in general should contain special provisions that require permittees to comply with chapter 27.53 RCW if any archeological sites or archeological objects such as artifacts and shipwrecks are discovered.

(m) Ocean uses and their distribution, service, and supply vessels and aircraft should be located, designed, and operated in a manner that minimizes adverse impacts on fishing grounds, aquatic lands, or other renewable resource ocean use areas during the established, traditional, and recognized times they are used or when the resource could be adversely impacted.

(n) Ocean use service, supply, and distribution vessels and aircraft should be routed to avoid environmentally critical and sensitive habitats such as sea stacks and wetlands, preserves, sanctuaries, bird colonies, and migration routes, during critical times those areas or species could be affected.

(o) In locating and designing associated onshore facilities, special attention should be given to the environment, the characteristics of the use, and the impact of a probable disaster, in order to assure adjacent uses, habitats, and communities adequate protection from explosions, spills, and other disasters.

(p) Ocean uses and their associated facilities should be located and designed to minimize impacts on existing water dependent businesses and existing land transportation routes to the maximum extent feasible.

(q) Onshore facilities associated with ocean uses should be located in communities where there is adequate sewer, water, power, and streets. Within those communities, if space is available at existing marine terminals, the onshore facilities should be located there.

(r) Attention should be given to the scheduling and method of constructing ocean use facilities and the location of temporary construction facilities to minimize impacts on tourism, recreation, commercial fishing, local communities, and the environment.

(s) Special attention should be given to the effect that ocean use facilities will have on recreational activities and experiences such as public access, aesthetics, and views.

(t) Detrimental effects on air and water quality, tourism, recreation, fishing, aquaculture, navigation, transportation, public infrastructure, public services, and community culture should be considered in avoiding and minimizing adverse social and economic impacts.

(u) Special attention should be given to designs and methods that prevent, avoid, and minimize adverse impacts such as noise, light, temperature changes, turbidity, water pollution and contaminated sediments on the marine, estuarine or upland environment. Such attention should be given particularly during critical migration periods and life stages of marine species and critical oceanographic processes.

(v) Preproject environmental baseline inventories and assessments and monitoring of ocean uses should be required when little is known about the effects on marine and estuarine ecosystems, renewable resource uses and coastal communities or the technology involved is likely to change.

(w) Oil and gas, mining, disposal, and energy producing ocean uses should be designed, constructed, and operated in a manner that minimizes environmental impacts on the coastal waters environment, particularly the seabed communities, and minimizes impacts on recreation and existing renewable resource uses such as fishing.

(x) To the extent feasible, the location of oil and gas, and mining facilities should be chosen to avoid and minimize impacts on shipping lanes or routes traditionally used by commercial and recreational fishermen to reach fishing areas.

(y) Discontinuance or shutdown of oil and gas, mining or energy producing ocean uses should be done in a manner that minimizes impacts to renewable resource ocean uses such as fishing, and restores the seabed to a condition similar to its original state to the maximum extent feasible.

(8) Oil and gas uses and activities. Oil and gas uses and activities involve the extraction of oil and gas resources from beneath the ocean.

(a) Whenever feasible oil and gas facilities should be located and designed to permit joint use in order to minimize adverse impacts to coastal resources and uses and the environment.

(b) Special attention should be given to the availability and adequacy of general disaster response capabilities in reviewing ocean locations for oil and gas facilities.

(c) Because environmental damage is a very probable impact of oil and gas uses, the adequacy of plans, equipment, staffing, procedures, and demonstrated financial and performance capabilities for preventing, responding to, and mitigating the effects of accidents and disasters such as oil spills should be major considerations in the review of permits for their location and operation. If a permit is issued, it should ensure that adequate prevention, response, and mitigation can be provided before the use is initiated and throughout the life of the use.

(d) Special attention should be given to the response times for public safety services such as police, fire, emergency medical, and hazardous materials spill response services in providing and reviewing onshore locations for oil and gas facilities.

(e) Oil and gas facilities including pipelines should be located, designed, constructed, and maintained in conformance with applicable requirements but should at a minimum ensure adequate protection from geological hazards such as liquefaction, hazardous slopes, earthquakes, physical oceanographic processes, and natural disasters.

(f) Upland disposal of oil and gas construction and operation materials and waste products such as cuttings and drilling muds should be allowed only in sites that meet applicable requirements.

(9) Ocean mining. Ocean mining includes such uses as the mining of metal, mineral, sand, and gravel resources from the sea floor.

(a) Seafloor mining should be located and operated to avoid detrimental effects on ground fishing or other renewable resource uses.

(b) Seafloor mining should be located and operated to avoid detrimental effects on beach erosion or accretion processes.

(c) Special attention should be given to habitat recovery rates in the review of permits for seafloor mining.

(10) Energy production. Energy production uses involve the production of energy in a usable form directly in or on the ocean rather than extracting a raw material that is transported elsewhere to produce energy in a readily usable form. Examples of these ocean uses are facilities that use wave action or differences in water temperature to generate electricity.

(a) Energy-producing uses should be located, constructed, and operated in a manner that has no detrimental effects on beach accretion or erosion and wave processes.

(b) An assessment should be made of the effect of energy producing uses on upwelling, and other oceanographic and ecosystem processes.

(c) Associated energy distribution facilities and lines should be located in existing utility rights-of-way and corridors whenever feasible, rather than creating new corridors that would be detrimental to the aesthetic qualities of the shoreline area.

(11) Ocean disposal. Ocean disposal uses involve the deliberate deposition or release of material at sea, such

as solid wastes, industrial waste, radioactive waste, incineration, incinerator residue, dredged materials, vessels, aircraft, ordnance, platforms, or other man-made structures.

(a) Storage, loading, transporting, and disposal of materials shall be done in conformance with local, state, and federal requirements for protection of the environment.

(b) Ocean disposal shall be allowed only in sites that have been approved by the Washington department of ecology, the Washington department of natural resources, the United States Environmental Protection Agency, and the United States Army Corps of Engineers as appropriate.

(c) Ocean disposal sites should be located and designed to prevent, avoid, and minimize adverse impacts on environmentally critical and sensitive habitats, coastal resources and uses, or loss of opportunities for mineral resource development. Ocean disposal sites for which the primary purpose is habitat enhancement may be located in a wider variety of habitats, but the general intent of the guidelines should still be met.

(12) Transportation. Ocean transportation includes such uses as: Shipping, transferring between vessels, and offshore storage of oil and gas; transport of other goods and commodities; and offshore ports and airports. The following guidelines address transportation activities that originate or conclude in Washington's coastal waters or are transporting a nonrenewable resource extracted from the outer continental shelf off Washington.

(a) An assessment should be made of the impact transportation uses will have on renewable resource activities such as fishing and on environmentally critical and sensitive habitat areas, environmental and scientific preserves and sanctuaries.

(b) When feasible, hazardous materials such as oil, gas, explosives and chemicals, should not be transported through highly productive commercial, tribal, or recreational fishing areas. If no such feasible route exists, the routes used should pose the least environmental risk.

(c) Transportation uses should be located or routed to avoid habitat areas of endangered or threatened species, environmentally critical and sensitive habitats, migration routes of marine species and birds, marine sanctuaries and environmental or scientific preserves to the maximum extent feasible.

(13) Ocean research. Ocean research activities involve scientific investigation for the purpose of furthering knowledge and understanding. Investigation activities involving necessary and functionally related precursor activities to an ocean use or development may be considered exploration or part of the use or development. Since ocean research often involves activities and equipment, such as drilling and vessels, that also occur in exploration and ocean uses or developments, a case by case determination of the applicable regulations may be necessary.

(a) Ocean research should be encouraged to coordinate with other ocean uses occurring in the same area to minimize potential conflicts.

(b) Ocean research meeting the definition of "exploration activity" of WAC 173-15-020 shall comply with the requirements of chapter 173-15 WAC: Permits for oil or natural gas exploration activities conducted from state marine waters.

(c) Ocean research should be located and operated in a manner that minimizes intrusion into or disturbance of the coastal waters environment consistent with the purposes of the research and the intent of the general ocean use guidelines.

(d) Ocean research should be completed or discontinued in a manner that restores the environment to its original condition to the maximum extent feasible, consistent with the purposes of the research.

(e) Public dissemination of ocean research findings should be encouraged.

(14) Ocean salvage. Ocean salvage uses share characteristics of other ocean uses and involve relatively small sites occurring intermittently. Historic shipwreck salvage which combines aspects of recreation, exploration, research, and mining is an example of such a use.

(a) Nonemergency marine salvage and historic shipwreck salvage activities should be conducted in a manner that minimizes adverse impacts to the coastal waters environment and renewable resource uses such as fishing.

(b) Nonemergency marine salvage and historic shipwreck salvage activities should not be conducted in areas of cultural or historic significance unless part of a scientific effort sanctioned by appropriate governmental agencies.

[Statutory Authority: RCW 90.58.195, 91-10-033 (Order 91-08), § 173-16-064, filed 4/24/91, effective 5/25/91.]

Chapter 173-19 WAC

SHORELINE MANAGEMENT ACT OF 1971-- STATE MASTER PROGRAM

WAC

173-19-220	Grays Harbor County.
173-19-2207	Ocean Shores, city of.
173-19-230	Island County.
173-19-250	King County.
173-19-2516	Normandy Park, city of.
173-19-280	Klickitat County.
173-19-3203	Okanogan, city of.
173-19-3204	Omak, city of.
173-19-3205	Oroville, town of.
173-19-3206	Pateros, town of.
173-19-3208	Tonasket, town of.
173-19-3209	Twisp, town of.
173-19-3210	Winthrop, town of.
173-19-350	Pierce County.
173-19-360	San Juan County.
173-19-420	Thurston County.
173-19-4205	Tumwater, city of.

WAC 173-19-220 Grays Harbor County. Grays Harbor County master program approved August 6, 1975. Revision approved December 2, 1977. Revision approved July 17, 1978. Revision approved March 27, 1980. Revision approved June 3, 1986. Revision approved August 21, 1987. Revision approved April 5, 1988. Revision approved September 6, 1988. Revision

approved May 15, 1990. Revision approved September 3, 1991.

[Statutory Authority: RCW 90.58.200. 91-18-081 (Order 91-31), § 173-19-220, filed 9/4/91, effective 10/5/91; 90-13-079 (Order 89-64), § 173-19-220, filed 6/19/90, effective 7/20/90; 90-11-072 (Order 90-04), § 173-19-220, filed 5/16/90, effective 6/16/90. Statutory Authority: RCW 90.58.120 and 90.58.200. 88-19-008 (Order DE 88-52), § 173-19-220, filed 9/8/88; 88-08-089 (Order DE 88-02), § 173-19-220, filed 4/6/88; 87-18-023 (Order DE 87-25), § 173-19-220, filed 8/26/87; 86-12-071 (Order DE 86-11), § 173-19-220, filed 6/4/86; 80-07-007 (Order DE 80-26), § 173-19-220, filed 6/6/80. Statutory Authority: RCW 90.58.030 (3)(c), 90.58.120 and 90.58.200. 80-02-123 (Order DE 79-34), § 173-19-220, filed 1/30/80; 79-09-001 (Order DE 79-6), § 173-19-220, filed 8/2/79; Order DE 77-16, § 173-19-220, filed 9/9/77; Order DE 75-21, § 173-19-220, filed 8/12/75; Order DE 74-23, § 173-19-220, filed 12/30/74.]

WAC 173-19-2207 Ocean Shores, city of. City of Ocean Shores master program approved August 12, 1974. Revision approved June 4, 1991.

[Statutory Authority: RCW 90.58.200. 91-12-053 (Order 91-05), § 173-19-2207, filed 6/5/91, effective 7/6/91. Statutory Authority: RCW 90.58.030 (3)(c), 90.58.120 and 90.58.200. 80-02-123 (Order DE 79-34), § 173-19-2207, filed 1/30/80.]

WAC 173-19-230 Island County. Island County master program approved June 25, 1976. Revision approved June 4, 1985. Revision approved January 23, 1991.

[Statutory Authority: RCW 90.58.200. 91-03-145 (Order 90-43), § 173-19-230, filed 1/23/91, effective 2/23/91. Statutory Authority: RCW 90.58.120 and 90.58.200. 85-12-051 (Order 85-12), § 173-19-230, filed 6/5/85. Statutory Authority: RCW 90.58.030 (3)(c), 90.58.120 and 90.58.200. 80-02-123 (Order DE 79-34), § 173-19-230, filed 1/30/80; 79-09-001 (Order DE 79-6), § 173-19-230, filed 8/2/79; Order DE 77-16, § 173-19-230, filed 9/9/77; Order DE 74-23, § 173-19-230, filed 12/30/74.]

WAC 173-19-250 King County. King County master program approved July 8, 1976. Revision approved November 22, 1976. Revision approved June 30, 1978. Revision approved July 5, 1979. Revision approved September 23, 1981. Revision approved February 9, 1982. Revision approved March 14, 1984. Revision approved June 18, 1985. Revision approved January 22, 1991.

[Statutory Authority: RCW 90.58.200. 91-03-149 (Order 90-52), § 173-19-250, filed 1/23/91, effective 2/23/91. Statutory Authority: RCW 90.58.120 and 90.58.200. 85-13-054 (Order 85-17), § 173-19-250, filed 6/18/85; 84-07-025 (Order DE 84-6), § 173-19-250, filed 3/15/84; 82-05-018 (Order DE 81-54), § 173-19-250, filed 2/9/82; 81-20-006 (Order DE 81-24), § 173-19-250, filed 9/24/81. Statutory Authority: RCW 90.58.030 (3)(c), 90.58.120 and 90.58.200. 80-02-123 (Order DE 79-34), § 173-19-250, filed 1/30/80; 79-09-131 (Order DE 79-16), § 173-19-250, filed 9/5/79; 79-09-001 (Order DE 79-6), § 173-19-250, filed 8/2/79; Order DE 77-28, § 173-19-250, filed 10/24/77; Order DE 77-16, § 173-19-250, filed 9/9/77; Order DE 76-15, § 173-19-250, filed 5/3/76; Order DE 75-21, § 173-19-250, filed 8/12/75; Order DE 74-23, § 173-19-250, filed 12/30/74.]

WAC 173-19-2516 Normandy Park, city of. City of Normandy Park master program approved April 5, 1974. Revision approved December 17, 1991.

[Statutory Authority: RCW 90.58.200. 92-01-096 (Order 91-42), § 173-19-2516, filed 12/17/91, effective 1/17/92. Statutory Authority:

RCW 90.58.030 (3)(c), 90.58.120 and 90.58.200. 80-02-123 (Order DE 79-34), § 173-19-2516, filed 1/30/80.]

WAC 173-19-280 Klickitat County. Klickitat County master program approved August 29, 1975. Revision approved September 6, 1979. Revision approved March 1, 1984. Revision approved July 3, 1990. Revision approved October 28, 1991.

[Statutory Authority: RCW 90.58.200. 91-22-021 (Order 91-39), § 173-19-280, filed 10/29/91, effective 11/29/91; 90-14-091 (Order 90-14), § 173-19-280, filed 7/3/90, effective 8/3/90. Statutory Authority: RCW 90.58.120 and 90.58.200. 84-06-043 (Order DE 83-40), § 173-19-280, filed 3/2/84. Statutory Authority: RCW 90.58.030 (3)(c), 90.58.120 and 90.58.200. 80-02-123 (Order DE 79-34), § 173-19-280, filed 1/30/80; 79-09-001 (Order DE 79-6), § 173-19-280, filed 8/2/79; Order DE 76-15, § 173-19-280, filed 5/3/76; Order DE 74-23, § 173-19-280, filed 12/30/74.]

WAC 173-19-3203 Okanogan, city of. City of Okanogan master program approved December 16, 1975. Revision approved March 9, 1976. Revision approved January 22, 1991.

[Statutory Authority: RCW 90.58.200. 91-03-147 (Order 90-50), § 173-19-3203, filed 1/23/91, effective 2/23/91. Statutory Authority: RCW 90.58.030 (3)(c), 90.58.120 and 90.58.200. 80-02-123 (Order DE 79-34), § 173-19-3203, filed 1/30/80.]

WAC 173-19-3204 Omak, city of. City of Omak master program approved December 16, 1975. Revision approved March 9, 1976. Revision approved October 28, 1991.

[Statutory Authority: RCW 90.58.200. 91-22-023 (Order 91-41), § 173-19-3204, filed 10/29/91, effective 11/29/91. Statutory Authority: RCW 90.58.030 (3)(c), 90.58.120 and 90.58.200. 80-02-123 (Order DE 79-34), § 173-19-3204, filed 1/30/80.]

WAC 173-19-3205 Oroville, town of. Town of Oroville master program approved December 16, 1975. Revision approved March 9, 1976. Revision approved January 22, 1991.

[Statutory Authority: RCW 90.58.200. 91-03-146 (Order 90-49), § 173-19-3205, filed 1/23/91, effective 2/23/91. Statutory Authority: RCW 90.58.030 (3)(c), 90.58.120 and 90.58.200. 80-02-123 (Order DE 79-34), § 173-19-3205, filed 1/30/80.]

WAC 173-19-3206 Pateros, town of. Town of Pateros master program approved December 16, 1975. Revision approved March 9, 1976. Revision approved December 17, 1991.

[Statutory Authority: RCW 90.58.200. 92-01-097 (Order 91-49), § 173-19-3206, filed 12/17/91, effective 1/17/92. Statutory Authority: RCW 90.58.030 (3)(c), 90.58.120 and 90.58.200. 80-02-123 (Order DE 79-34), § 173-19-3206, filed 1/30/80.]

WAC 173-19-3208 Tonasket, town of. Town of Tonasket master program approved December 16, 1975. Revision approved March 9, 1976. Revision approved August 12, 1982. Revision approved January 22, 1991.

[Statutory Authority: RCW 90.58.200. 91-03-148 (Order 90-51), § 173-19-3208, filed 1/23/91, effective 2/23/91. Statutory Authority: RCW 90.58.120 and 90.58.200. 82-17-049 (Order DE 82-32), § 173-19-3208, filed 8/16/82. Statutory Authority: RCW 90.58.030 (3)(c), 90.58.120 and 90.58.200. 80-02-123 (Order DE 79-34), § 173-19-3208, filed 1/30/80.]

WAC 173-19-3209 Twisp, town of. Town of Twisp master program approved December 16, 1975. Revision approved March 9, 1976. Revision approved February 5, 1991.

[Statutory Authority: RCW 90.58.200. 91-04-070 (Order 90-47), § 173-19-3209, filed 2/5/91, effective 3/8/91. Statutory Authority: RCW 90.58.030 (3)(c), 90.58.120 and 90.58.200. 80-02-123 (Order DE 79-34), § 173-19-3209, filed 1/30/80.]

WAC 173-19-3210 Winthrop, town of. Town of Winthrop master program approved December 16, 1975. Revision approved March 9, 1976. Revision approved February 2, 1979. Revision approved November 23, 1981. Revision approved January 31, 1985. Revision approved March 28, 1985. Revision approved September 11, 1986. Revision approved February 5, 1991.

[Statutory Authority: RCW 90.58.200. 91-04-071 (Order 90-48), § 173-19-3210, filed 2/5/91, effective 3/8/91. Statutory Authority: RCW 90.58.120 and 90.58.200. 86-19-048 (Order DE 86-22), § 173-19-3210, filed 9/12/86; 85-08-016 (Order 85-08), § 173-19-3210, filed 3/28/85. Statutory Authority: RCW 90.58.120 and 90.58.200 and chapter 90.58 RCW. 85-04-039 (Order 84-46), § 173-19-3210, filed 2/1/85. Statutory Authority: RCW 90.58.030 (3)(c), 90.58.120 and 90.58.200. 81-24-074 (Order DE 81-36), § 173-19-3210, filed 12/2/81; 80-02-123 (Order DE 79-34), § 173-19-3210, filed 1/30/80.]

WAC 173-19-350 Pierce County. Pierce County master program approved April 4, 1975. Revision approved November 16, 1976. Revision approved October 26, 1977. Revision approved February 21, 1979. Revision approved June 11, 1979. Revision approved August 16, 1979. Revision approved June 4, 1991.

[Statutory Authority: RCW 90.58.200. 91-12-052 (Order 91-04), § 173-19-350, filed 6/5/91, effective 7/6/91. Statutory Authority: RCW 90.58.030 (3)(c), 90.58.120 and 90.58.200. 80-02-123 (Order DE 79-34), § 173-19-350, filed 1/30/80; 79-11-019 (Order DE 79-19), § 173-19-350, filed 10/9/79; 79-09-131 (Order DE 79-16), § 173-19-350, filed 9/5/79; 79-09-129 (Order DE 79-27), § 173-19-350, filed 9/5/79; 79-09-001 (Order DE 79-6), § 173-19-350, filed 8/2/79; Order DE 77-16, § 173-19-350, filed 9/9/77; Order DE 76-15, § 173-19-350, filed 5/3/76; Order DE 75-21, § 173-19-350, filed 8/12/75; Order DE 74-23, § 173-19-350, filed 12/30/74.]

WAC 173-19-360 San Juan County. San Juan County master program approved May 28, 1976. Revision approved October 29, 1976. Revision approved April 13, 1981. Revision approved October 30, 1984. Revision approved April 19, 1989. Revision approved March 14, 1990. Revision approved May 15, 1990. Revision approved June 19, 1990. Revision approved February 5, 1991. Revision approved June 4, 1991.

[Statutory Authority: RCW 90.58.200. 91-12-054 (Order 91-18), § 173-19-360, filed 6/5/91, effective 7/6/91; 91-04-072 (Order 90-59), § 173-19-360, filed 2/5/91, effective 3/8/91; 90-11-072 and 90-13-089 (Order 90-03 and 90-03A), § 173-19-360, filed 5/16/90 and 6/20/90, effective 6/16/90 and 7/21/90. Statutory Authority: RCW 90.58.120 and 90.58.200. 89-09-077 and 90-07-026 (Order DE 88-22 and DE 88-22A), § 173-19-360, filed 4/19/89 and 3/14/90, effective 4/14/90; 84-22-016 (Order DE 84-36), § 173-19-360, filed 10/31/84; 81-09-057 (Order DE 81-8), § 173-19-360, filed 4/17/81. Statutory Authority: RCW 90.58.030 (3)(c), 90.58.120 and 90.58.200. 80-02-123 (Order DE 79-34), § 173-19-360, filed 1/30/80; 79-09-001 (Order DE 79-6), § 173-19-360, filed 8/2/79; Order DE 77-16, § 173-19-360, filed 9/9/77; Order DE 74-23, § 173-19-360, filed 12/30/74.]

WAC 173-19-420 Thurston County. Thurston County master program approved May 21, 1976. Revision approved August 27, 1976. Revision approved August 7, 1979. Revision approved September 23, 1981. Revision approved March 4, 1982. Revision approved August 30, 1984. Revision approved September 29, 1987. Revision approved May 15, 1990. Revision approved October 28, 1991.

[Statutory Authority: RCW 90.58.200. 91-22-022 (Order 91-40), § 173-19-420, filed 10/29/91, effective 11/29/91; 90-11-072 (Order 89-63), § 173-19-420, filed 5/16/90, effective 6/16/90. Statutory Authority: RCW 90.58.120 and 90.58.200. 87-20-026 (Order DE 87-28), § 173-19-420, filed 9/30/87; 84-19-038 (Order DE 84-30), § 173-19-420, filed 9/14/84; 82-07-004 (Order DE 82-3), § 173-19-420, filed 3/4/82; 81-20-005 (Order DE 81-26), § 173-19-420, filed 9/24/81. Statutory Authority: RCW 90.58.030 (3)(c), 90.58.120 and 90.58.200. 80-02-123 (Order DE 79-34), § 173-19-420, filed 1/30/80; 79-11-019 (Order DE 79-19), § 173-19-420, filed 10/9/79; 79-09-001 (Order DE 79-6), § 173-19-420, filed 8/2/79; Order DE 77-16, § 173-19-420, filed 9/9/77; Order DE 74-23, § 173-19-420, filed 12/30/74.]

WAC 173-19-4205 Tumwater, city of. City of Tumwater master program approved May 21, 1976. Revision approved August 30, 1984. Revision approved September 29, 1987. Revision approved May 15, 1990. Revision approved October 2, 1990. Revision approved April 17, 1991.

[Statutory Authority: RCW 90.58.200. 91-09-055 (Order 91-10), § 173-19-4205, filed 4/16/91, effective 5/17/91; 90-20-110 (Order 90-33), § 173-19-4205, filed 10/2/90, effective 11/2/90; 90-11-072 (Order 90-07), § 173-19-4205, filed 5/16/90, effective 6/16/90. Statutory Authority: RCW 90.58.120 and 90.58.200. 87-20-026 (Order DE 87-28), § 173-19-4205, filed 9/30/87; 84-19-038 (Order DE 84-30), § 173-19-4205, filed 9/14/84. Statutory Authority: RCW 90.58.030 (3)(c), 90.58.120 and 90.58.200. 80-02-123 (Order DE 79-34), § 173-19-4205, filed 1/30/80.]

Chapter 173-160 WAC

MINIMUM STANDARDS FOR CONSTRUCTION AND MAINTENANCE OF WELLS

WAC
173-160-040 Permit.

WAC 173-160-040 Permit. As provided in RCW 90.44.050, no well shall be constructed if a withdrawal of more than five thousand gallons a day or irrigation of more than one-half acre of noncommercial lawn and garden is contemplated, unless an application to appropriate such waters has been made to the department and a permit has been granted.

As provided in WAC 173-548-050, no wells shall be constructed for any purposes in subbasins closed in the Methow water resources regulation, including those exempt from permitting under RCW 90.44.050, unless written approval has been obtained from the department prior to beginning well construction.

[Statutory Authority: Chapters 34.05, 90.54, 18.104, 90.03 and 90.44 RCW. 91-23-093 (Order 91-27), § 173-160-040, filed 11/19/91, effective 12/20/91. Statutory Authority: Chapter 18.104 RCW. 88-08-070 (Order 88-58), § 173-160-040, filed 4/6/88; Order 73-6, § 173-160-040, filed 4/30/73.]

**Chapter 173-166 WAC
EMERGENCY DROUGHT RELIEF**

WAC

173-166-010	Purpose.
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WAC 173-166-010 Purpose. The legislature in 1989 gave permanent drought relief authority to the department of ecology and enabled ecology to issue orders declaring drought emergencies. Chapter 171, Laws of 1989 amends chapter 43.83B RCW (Water supply facilities).

(1) Chapter 171, Laws of 1989 authorizes the Washington state department of ecology (ecology) to assist in alleviating future drought conditions throughout the state, and sets forth the criteria and procedures for implementing the 1989 drought relief legislation.

(2) Ecology has authority under chapter 171, Laws of 1989 to:

(a) Issue emergency permits to withdraw public waters as an alternate source of water supply.

(b) Approve water right transfers between willing parties.

(c) Provide funding assistance for eligible drought projects and measures.

[Statutory Authority: RCW 43.83B.420. 91-03-081 (Order 90-53), § 173-166-010, filed 1/17/91, effective 2/17/91. Statutory Authority: 1977 c 339 § 75. 78-04-019 (Order 78-3), § 173-166-010, filed 3/10/78.]

WAC 173-166-020 Authority. This regulation is promulgated by the department of ecology under authorities and procedures provided in chapter 171, Laws of 1989 after notification as provided in chapter 34.05 RCW.

[Statutory Authority: RCW 43.83B.420. 91-03-081 (Order 90-53), § 173-166-020, filed 1/17/91, effective 2/17/91. Statutory Authority: 1977 c 339 § 75. 78-04-019 (Order 78-3), § 173-166-020, filed 3/10/78.]

WAC 173-166-030 Definitions. As used in this chapter:

(1) "Ecology" is the department of ecology.

(2) "Drought conditions" are water supply conditions where a geographical area or a significant part of a geographical area is receiving, or is projected to receive, less than seventy-five percent of normal water supply as the result of natural conditions and the deficiency causes, or is expected to cause, undue hardship to water users within that area.

(3) "Essential minimum" for the fisheries resource is:

(a) That amount of water or flow rate established as a regulation adopted by ecology pursuant to RCW 90.22-.020 or 90.54.050;

(b) That amount of water or flow placed as a proviso on a water right permit or certificate; or

(c) That amount of water or flow established on an interim basis to assure the maintenance of fisheries requirements. Such a determination will be made by ecology, in consultation with, among others, the departments of fisheries and wildlife, any concerned federal agencies and affected Indian tribes.

(4) "Executive water emergency committee (EWEC)" is a committee, chaired by the governor's office, including members of state, local, and federal agencies which reviews water supply information provided by the water supply availability committee and determines potential effects of water shortages upon the state of Washington. Affected Indian tribes will be invited to participate.

(5) "Geographical area" is an area within the state of Washington which can be described either by natural or political boundaries and which can be specifically identified in an order declaring a drought emergency. Examples of specific geographical areas include, but are not limited to:

(a) The state of Washington.

(b) Counties.

(c) Water resource inventory areas (WRIAs) as defined in chapter 173-500 WAC.

(d) Individual watersheds which constitute only a portion of a WRIA but whose boundaries can be topographically described.

(e) Ground water management areas and subareas as defined in chapter 173-100 WAC.

(f) Designated sole source aquifers.

(g) Combinations of the above areas.

(6) "Normal water supply" is:

(a) For the purpose of the determination of drought conditions, the average amount of water available to a geographical area on an annual basis, based upon evaluation of precipitation, streamflow, snowpack and other hydrological and meteorological factors.

(b) For the purpose of eligibility for drought assistance:

(i) That amount of water put to beneficial use during the irrigation season for the irrigation of one or more crops, using reasonably efficient practices, including reasonable conveyance losses, under a valid water right permit or certificate, or a supported registered water right claim; or

(ii) That amount or flow of water required for normal operations of fish hatchery or fish passage facilities. Such facilities, where required by law, must be operating under a valid water right permit or certificate, or under a supported registered water right claim; or

(iii) The median amount or flow of water that is historically required to provide normal instream habitat conditions for the existing fishery population.

(7) "Previously established activities" include:

(a) The irrigation of a specified number of acres, using reasonably efficient practices, under a valid water

right permit or certificate, or a supported registered water right claim.

(b) Those fish-management activities presently employed to maintain the fisheries resource. The resource itself must neither be restored nor enhanced by drought relief actions available under the provisions of this chapter.

(c) The delivery of water by public and private entities through existing supply systems to present populations, areas, and/or facilities for purposes that are nonagricultural and nonfishery related.

(8) "Reasonably efficient practices" are those practices including, but not limited to, methods of conveyance, use, and disposal of water which are reasonable and appropriate under the circumstances to bring about water use efficiency as determined by an area-specific application of criteria identified by ecology, which may include, among others:

(a) Customary practices in the area;

(b) Reasonableness of any facilities at the time of installation;

(c) Cost of improvements and impacts of the costs of upgrading facilities on the continued use of water by an appropriator;

(d) Changes in water use practices and technology; and

(e) Impact of alternative water use practices on other water uses and the environment.

(9) "Supported registered water right claim" is a registered water right claim which includes sufficient evidence to satisfy ecology that a valid water right would be confirmed should the claim be adjudicated. Applications made for emergency drought permits, water transfers, or funding assistance under this chapter must incorporate, either by reference or inclusion, necessary information to enable ecology to make an informed determination with respect to the claim. Such information may include, but is not limited to:

(a) Documentation of continuous historical exercise of the claimed right;

(b) Historical maps depicting the historical means of irrigation and the areas covered by the claimed right;

(c) Legal documentation, including any previous court or administrative board decisions, which addresses the historical nature and extent of the claimed right;

(d) "Old-timer" testimony which addresses the historical nature and extent of the claimed right.

(10) "Water supply availability committee (WSAC)" is a committee, with a core membership consisting of ecology, the National Weather Service, the Soil Conservation Service, the U.S. Geological Survey, the U.S. Bureau of Reclamation, and other federal agencies involved in water supply forecasting, which reviews pertinent hydrological and meteorological information and assesses water supply conditions for the state of Washington.

[Statutory Authority: RCW 43.83B.420. 91-03-081 (Order 90-53), § 173-166-030, filed 1/17/91, effective 2/17/91. Statutory Authority: 1977 c 339 § 75. 78-04-019 (Order 78-3), § 173-166-030, filed 3/10/78.]

WAC 173-166-040 General eligibility rule. (1) Applications for emergency drought permits, water transfers, or funding assistance made under this chapter will be processed only for previously established activities in a geographical area or part of a geographical area declared to be suffering from drought conditions. Where required by law, such activities must be conducted under a valid water right permit, certificate, or supported registered water right claim.

(2) Applications will be processed if the water user is receiving, or is projected to receive, less than seventy-five percent of normal water supply for the previously established activity and experiencing undue hardship as a result.

(3) All permits and approvals issued under this chapter will be subject to existing rights.

(4) Water obtained through the issuance of temporary permits, water right transfers, and/or funding assistance for projects or measures must be put to beneficial use in lieu of water which is unavailable because of drought conditions.

(5) All permits and approvals issued under this chapter will be of a temporary nature and will contain an expiration date.

[Statutory Authority: RCW 43.83B.420. 91-03-081 (Order 90-53), § 173-166-040, filed 1/17/91, effective 2/17/91. Statutory Authority: 1977 c 339 § 75. 78-04-019 (Order 78-3), § 173-166-040, filed 3/10/78.]

WAC 173-166-050 Forecast of drought conditions.

(1) Whenever it appears to the department of ecology that drought conditions as defined in WAC 173-166-030(2) either exist or are forecast to occur, ecology will consult with the state's water supply availability committee or its successor. Other appropriate sources of water supply information, such as the Columbia River water management group and the U.S. Army Corps of Engineers, may be consulted by the WSAC as needed.

(2) Should the water supply availability committee determine that a geographical area or a part of a geographical area is receiving, or is likely to receive, seventy-five percent or less of its normal water supply, it will advise the executive water emergency committee and the Indian tribes within the area of that fact. The executive water emergency committee will then make a determination as to whether or not undue hardships will occur as a result of the shortage.

(3) Should the executive water emergency committee determine that an area will suffer undue hardship as a result of a reduced water supply, it will submit a recommendation to that effect to the governor for written approval. Affected Indian tribes will be notified at the time such a recommendation is submitted.

(4) Upon securing the written approval of the governor, ecology will then issue an order declaring a geographical area or a significant part of a geographical area to be suffering from drought conditions and publish that order in a newspaper of general circulation in the area affected by the order.

(5) The determination of drought conditions will be based upon the updated seasonal forecast as applied to

the water supply conditions within the designated geographical area or part of a designated geographical area.

[Statutory Authority: RCW 43.83B.420, 91-03-081 (Order 90-53), § 173-166-050, filed 1/17/91, effective 2/17/91. Statutory Authority: 1977 c 339 § 75, 78-04-019 (Order 78-3), § 173-166-050, filed 3/10/78.]

WAC 173-166-060 Orders declaring drought conditions. (1) If the department of ecology determines that a geographical area or part of a geographical area is suffering from drought conditions, it may, upon the advice of the water supply availability committee, with the concurrence of the executive water emergency committee, and the written approval of the governor, issue an order to that effect.

(2) The order declaring drought conditions for a geographical area or part of a geographical area must contain the following elements:

(a) A description of the geographical area or part of a geographical area which is being so designated.

(b) The facts leading to the issuance of the order.

(c) The statutory authority upon which the order is being issued.

(d) The commencement date and termination date of the order. The termination date may be no later than one calendar year from the date the order is issued.

(e) Brief descriptions of the actions which are possible under the order.

(f) Provisions for the termination of withdrawals if essential minimum flows are jeopardized.

(3) Ecology must publish the order declaring a geographical area or a part of a geographical area to be suffering from drought conditions in a newspaper of general circulation in the area affected by the order.

(4) Persons may file written protest as to the contents of the order with ecology. Ecology will have fifteen calendar days from the date of receipt of the protest in which to make a determination as to its validity, using the procedure specified in WAC 173-166-050.

(5) A person who believes that an area should be declared to be suffering from drought conditions may petition ecology for such a declaration. Upon the receipt of such a petition, ecology will have fifteen calendar days from the date of receipt of the petition in which to make a determination as to its validity, using the procedure specified in WAC 173-166-050, and provide a decision to the applicant. The petition should contain the following information:

(a) A description of the geographical area or part of a geographical area which is being requested for designation.

(b) The nature of the relief sought in requesting such a designation.

(c) The facts upon which the petition is based.

(6) Orders declaring areas to be suffering from drought conditions may, with the written approval of the governor, be amended one or more times to change the termination date, provided that the termination date of the order, as amended, is no more than two calendar years from the date the order is first issued.

(7) Orders declaring areas to be suffering from drought conditions may be issued for different areas of the state and sequentially for the same area if drought conditions persist.

[Statutory Authority: RCW 43.83B.420, 91-03-081 (Order 90-53), § 173-166-060, filed 1/17/91, effective 2/17/91. Statutory Authority: 1977 c 339 § 75, 78-04-019 (Order 78-3), § 173-166-060, filed 3/10/78.]

WAC 173-166-070 Emergency drought permits. Ecology may allow water users to obtain water from alternate sources during drought conditions. To accomplish this, ecology may issue emergency drought permits authorizing withdrawals of ground water and surface water, including dead storage in reservoirs. Permits will be processed under the following criteria:

(1) Applicants must be conducting a previously established activity within a geographical area or part of a geographical area declared to be suffering from drought conditions.

(2) An application will be processed if the water user is receiving, or is projected to receive, less than seventy-five percent of normal water supply, as the result of natural drought conditions, for the previously established activity and experiencing, or is expected to experience, undue hardship as a result.

(3) Ecology, plus all state and local agencies with authority to issue permits or other authorizations in connection with emergency actions authorized under the provisions of this chapter, will have fifteen calendar days from the date of receipt of the respective application(s) in which to provide a decision to the applicant. Agencies with authority to review applications for emergency drought permits, such as under RCW 75.20.050, and affected Indian tribes will have fifteen calendar days from the date ecology receives the application in which to provide ecology with an opinion as to any effects of the proposed withdrawal.

(4) Waters authorized to be withdrawn must be used in relation to a previously established activity as defined in this chapter. The permit must not cover irrigation of new lands, restoration or enhancement of the fisheries resource, or a water supply in addition to the normal amount used in the past by individuals, private entities, or public bodies.

(5) Waters to be withdrawn must constitute an alternate (supplemental) water supply to the user's normal source of water.

(6) The withdrawal must not reduce flows or levels below essential minimums necessary to assure the maintenance of fisheries requirements and to protect federal and state interests including, but not limited to, power generation, navigation, water quality, and existing water rights.

(7) Emergency drought permits issued under this chapter will be temporary in nature and must expire no later than the expiration date of the order declaring the area in which the permitted activity is authorized to be suffering from drought conditions.

(8) Priority will be given to domestic and irrigation uses of water for any emergency withdrawals authorized under this chapter.

(9) Emergency drought permits issued under this chapter must contain provisions for termination should the withdrawal reduce flows or levels below essential minimums as defined in this chapter.

(10) To expedite the issuance of emergency drought permits, ecology is authorized to process the applications and issue the permits without compliance with requirements for:

- (a) Notice of newspaper publication.
- (b) The State Environmental Policy Act.

[Statutory Authority: RCW 43.83B.420. 91-03-081 (Order 90-53), § 173-166-070, filed 1/17/91, effective 2/17/91. Statutory Authority: Chapters 43.83B and 43.27A RCW. 88-13-037 (Order 88-11), § 173-166-070, filed 6/9/88.]

WAC 173-166-080 Temporary transfers of water rights. (1) Ecology may approve emergency water right changes in order to effect a transfer of water between willing parties. Water right changes can include purpose of use, place of use, and point of diversion.

(2) Examples of possible water right transfers include, but are not limited to, the following situations:

(a) A water right holder may choose to reduce irrigated acreage and transfer the unused water to another water right holder whose normal water supply is decreased by drought conditions. The acreage irrigated with transferred water on the second parcel may not exceed the acreage reduction on the first parcel.

(b) A water right holder may transfer a water right from an out-of-stream use to an instream use.

(c) Municipalities or other public bodies may transfer water between one another.

(3) Requests for water right transfers will be processed under the following criteria:

(a) Applicants must be conducting a previously established activity within a geographical area or part of a geographical area declared to be suffering from drought conditions.

(b) An application for a water right transfer will be processed if the recipient water user is receiving, or is projected to receive, less than seventy-five percent of normal water supply, as the result of natural drought conditions, for the previously established activity and experiencing, or is expected to experience, undue hardship as a result.

(c) All approvals by ecology for water right transfers under this chapter will be temporary in nature and will be for the purpose of alleviating drought conditions. These approvals must terminate no later than the expiration date of the order which declares the area to be suffering from drought conditions.

(d) Water right transfers between willing parties may be approved when an emergency exists only if such a transfer will not affect existing rights whatsoever, or reduce flows or levels below essential minimums, or adversely affect federal and state interests including, but not limited to, power generation, navigation, and water quality.

(e) Water rights may be transferred within areas declared to be suffering from drought conditions. Water rights may also be transferred from outside an area declared to be suffering from drought conditions into an area declared to be suffering from drought conditions, provided such a transfer of water is physically possible and is consistent with the provisions of RCW 90.03.380, 90.03.390, and 90.44.100. Water rights will not be transferred from within an area declared to be suffering from drought conditions to outside that area.

(f) To expedite water transfers during drought conditions, ecology can approve temporary changes in water rights without compliance with requirements for:

- (i) Notice of newspaper publication.
- (ii) The State Environmental Policy Act.

(g) In those cases where temporary water transfers require court approval while general adjudication proceedings are ongoing, ecology will assist the court in coordination, maintaining communications, and providing technical assistance when requested.

(h) The temporary changing of a water right under this chapter will not be admissible as evidence in either supporting or contesting the validity of water claims in a general adjudication of water rights in the state of Washington.

(i) Ecology, plus all state and local agencies with authority to issue permits or other authorizations in connection with emergency actions authorized under the provisions of this chapter, will have fifteen calendar days from the date of receipt of the respective application(s) in which to provide a decision to the applicant. Agencies with authority to review applications for temporary water right transfers, such as under RCW 75.20.050, and affected Indian tribes will have fifteen calendar days from the date ecology receives the application in which to provide ecology with an opinion as to any effects of the proposed transfer.

[Statutory Authority: RCW 43.83B.420. 91-03-081 (Order 90-53), § 173-166-080, filed 1/17/91, effective 2/17/91.]

WAC 173-166-090 Funding assistance—General criteria. Ecology may provide funding assistance to public bodies for projects and measures designed to alleviate drought conditions relating to agricultural and fisheries survival. Funding is available from emergency agricultural water supply funds under RCW 43.83B.300. Funding assistance will be based upon the total funds available at the beginning of the current biennium. General criteria under which funds will be provided:

(1) Public bodies eligible to receive emergency funds are defined in RCW 43.83B.050 as ". . . the state of Washington, or any agency, political subdivision, taxing district, or municipal corporation thereof, an agency of the federal government, and those Indian tribes now or hereafter recognized as such by the federal government for participation in the federal land and water conservation program and which may constitutionally receive grants or loans from the state of Washington."

(2) The public body applying for emergency funds must be conducting the previously established activity for which they seek funding assistance within an area

declared to be suffering from drought conditions as defined in WAC 173-166-030(2).

(3) The public body applying for emergency funds must be receiving, or be projected to receive, less than seventy-five percent of normal water supply, as the result of natural drought conditions, for the previously established activity for which they seek funding assistance and experiencing, or be expected to experience, undue hardship as a result.

(4) Funding assistance will be for planning, acquisition, construction, rehabilitation, and improvement of water supply facilities and for other appropriate measures to assure the survival of irrigated agriculture and the state's fisheries resource.

(5) Funding assistance will be available only for projects or measures undertaken in response to drought conditions which are beyond the normal scope of operations of the public body applying for emergency funds.

(6) No more than ten percent of total available funds will be allocated for nonagricultural drought relief purposes, including the preservation of the state's fisheries during a given biennium.

(7) Funding assistance may be in the form of a loan or a grant or a combination loan and grant.

(8) Loans, grants, or combination loans and grants may be used as matching funds in cases where federal, local, or other funds are also available.

(9) Emergency loans may be approved with a payback period not to exceed fifteen years, with the interest rate to be equal to the final discount rate established for one year U.S. Treasury Bills at the first auction following the beginning of the state fiscal year in which the loan is approved.

(10) Ecology, plus all state and local agencies that are affected by the proposed project or measure, in keeping with the emergency nature of these provisions, will process the respective application(s) and provide a decision(s) to the applicant in an expeditious manner.

(11) To expedite the implementation of drought relief projects and measures, ecology can approve funding assistance without compliance with requirements for:

- (a) Notice of publication.
- (b) The State Environmental Policy Act.

[Statutory Authority: RCW 43.83B.420, 91-03-081 (Order 90-53), § 173-166-090, filed 1/17/91, effective 2/17/91.]

WAC 173-166-100 Funding assistance—Agricultural criteria. (1) Funding assistance to alleviate drought conditions in irrigated agriculture will be provided under the following formula:

(a) No single entity will receive more than ten percent of the total funds available for drought relief.

(b) A loan may be made for up to ninety percent of total eligible project costs.

(c) A combination loan and grant may be made for up to one hundred percent of total eligible project costs.

(d) A grant or the grant portion of a combination loan and grant may be made for twenty percent of total eligible project costs if the public body being provided

funds is within a geographical area declared to be suffering from drought conditions as defined in WAC 173-166-030(2).

(e) The grant or grant portion of a combination loan and grant may be made for up to forty percent of total eligible project costs if the public body being provided funds is receiving, or is forecast to receive, fifty percent or less of normal seasonal water supplies.

(f) A grant or the grant portion of a combination loan and grant may be amended to increase the grant up to forty percent of eligible project costs if drought conditions as defined in this chapter change after a grant has been signed for twenty percent of eligible project costs, provided:

(i) That the grantee qualifies for the higher grant as defined in (e) of this subsection; and

(ii) That the original grant agreement has not been terminated or closed out.

(g) The grant or grant portion of a combination loan and grant, once signed by all parties, may not be reduced despite any subsequent improvement in water supply conditions.

(2) Eligibility conditions for each proposed agricultural project or measure are:

(a) The proposed project or measure must be within an area declared to be suffering from drought conditions as defined in WAC 173-166-030(2).

(b) The public body applying for emergency funds must be receiving, or be projected to receive, less than seventy-five percent of normal water supply and experiencing, or be expected to experience, undue hardship as a result for the previously established activity for which they seek funding assistance.

(c) The proposed project or measure must be for a beneficial use involving a previously established activity or purpose.

(d) The proposed project or measure must assist in alleviating a water shortage.

(e) The public body receiving the loan must satisfy ecology as to its ability to repay the loan and complete the project or measure.

(f) Water derived from the project or measure must be put to beneficial use as a substitute for water not available because of a drought.

(g) Water derived from the project or measure must not be used to irrigate new lands.

(h) The proposed project or measure must not adversely affect existing rights, including both instream and out-of-stream rights.

(i) All required permits and approvals for the proposed project or measure must be obtained by the applicant prior to a loan or grant agreement being signed.

(3) Eligible projects that may be funded for drought relief of irrigated agriculture include, but are not limited to:

- (a) Pumps and accessories.
- (b) Discharge lines.
- (c) Pipelines.
- (d) Canals and laterals with control structures.
- (e) Liners for leaky pipes and canals.
- (f) Diversion structures.

- (g) Reregulating reservoirs.
- (h) Measuring devices.
- (i) Wells with pumps and accessories.

(4) Eligible measures that may be funded include the means for implementing water conservation procedures, acquiring alternate water sources, or transferring water rights, provided that the proposed measure represents an additional cost to the applicant as the result of drought conditions, and not as a substitute for normal water supply costs.

(a) Types of eligible measures for implementing water conservation procedures include, but are not limited to:

(i) Irrigation scheduling programs and activities, including the necessary personnel to accomplish such activities.

(ii) Education programs.

(b) Types of eligible measures for acquiring alternate water sources or transferring water rights include, but are not limited to:

(i) Water leasing fees.

(ii) Repair costs.

(iii) Power costs.

(5) Priority will be given to those proposed agricultural projects and measures which:

(a) Need additional water supplies. Need will be measured by:

(i) The short-term and long-term effects that the water shortage would have on the applicant's crops in the absence of drought relief;

(ii) The capability and reliability of the proposed project or measure to provide an emergency water supply to the applicant;

(iii) The percent of water shortage expected for each applicant.

(b) Are the most effective in achieving long-term reductions (conservation) in water requirements and/or more efficient use of available supplies.

(c) Present no, or minimal, overall environmental impacts, including any detrimental effects to wetlands. Any such impacts should be identified to the best extent possible by the applicant at the time of application.

(6) Preference will be given to those public bodies implementing water conservation plans, water system efficiency improvements, and other drought contingency actions in addition to the funding assistance applied for under this chapter.

[Statutory Authority: RCW 43.83B.420, 91-03-081 (Order 90-53), § 173-166-100, filed 1/17/91, effective 2/17/91.]

WAC 173-166-110 Funding assistance--Fisheries criteria. (1) Ecology may provide funding assistance to alleviate drought conditions affecting the state's fisheries resource provided that no other capital budget funds are available for these purposes at the date of application, as verified by the office of financial management. Funding assistance will be based upon the following formula:

(a) A loan may be made for up to ninety percent of total eligible project costs.

(b) A combination loan and grant may be made for up to one hundred percent of total eligible project costs.

(c) A grant or the grant portion of a combination loan and grant may be made for twenty percent of total eligible project costs if the public body being provided funds is within a geographical area declared to be suffering from drought conditions as defined in WAC 173-166-030(2).

(d) The grant or the grant portion of a combination loan and grant may be made for up to forty percent of total eligible project costs if the public body being provided funds is receiving, or is forecast to receive, fifty percent or less of normal seasonal water supplies.

(e) A grant or the grant portion of a combination loan and grant may be amended to increase the grant up to forty percent of eligible project costs if drought conditions as defined in this chapter change after a grant has been signed for twenty percent of eligible project costs, provided:

(i) That the grantee qualifies for the higher grant as defined in (d) of this subsection; and

(ii) That the original grant agreement has not been terminated or closed out.

(f) The grant or grant portion of a combination loan and grant, once signed by all parties, may not be reduced despite any subsequent improvement in water supply conditions.

(g) No more than ten percent of total funds available at the beginning of the current biennium will be allocated for nonagricultural drought relief purposes, including the preservation of the state's fisheries, during that biennium.

(2) Eligibility conditions for each proposed fisheries project are:

(a) The project lies within a geographic area declared to be suffering from drought conditions.

(b) The proposed project must assist in alleviating the water shortage.

(c) Water from the proposed project must be put to beneficial use as a substitute for water not available because of the drought.

(d) Water derived from projects that are provided funding assistance must not be used to restore or enhance the fisheries resource.

(3) Eligible projects that may be funded for the protection of fish culture at hatcheries from drought conditions include, but are not limited to:

(a) Purchase and installation of water-reuse pumps.

(b) Modifying hatchery outlet structures.

(c) Modifying stream channels adjacent to a hatchery to assure passage to the holding pond.

(d) Provision and maintenance of oxygen levels in off-site holding ponds by purchase and installation of bottle gas (using air stones), or oxygen generation systems, or mechanical aeration.

(4) Eligible projects that may be funded to protect instream fish habitat from drought conditions include, but are not limited to:

(a) Augmentation of instream flows through transfers of diversionary surface and ground water rights.

(b) Augmentation of instream flows through temporary withdrawals of ground waters.

(c) Stream channel modification such as trenching, sandbagging, or berming to protect spawning gravels.

(5) Eligible projects that may be funded to optimize fish survival during drought conditions include, but are not limited to:

(a) Capture and relocation of stranded fish.

(b) Stream channel modification such as trenching, sandbagging, or berming to provide migratory channels for fish passage.

(6) The departments of fisheries and wildlife, plus any potentially affected Indian tribes, will be consulted to verify eligibility, needs, and nature of all proposed fisheries projects and measures.

(7) Preference will be given to those public bodies implementing water conservation plans, water system efficiency improvements, and other drought contingency actions in addition to the funding assistance applied for under this chapter.

[Statutory Authority: RCW 43.83B.420. 91-03-081 (Order 90-53), § 173-166-110, filed 1/17/91, effective 2/17/91.]

WAC 173-166-120 Requests for drought relief--Contacts--Applications. (1) Information regarding implementation of this chapter, and applications for emergency drought permits, water right transfers, and/or funding assistance can be obtained from the ecology headquarters office, water resources program, or from any of the four ecology regional offices. Ecology regional offices are located in Redmond, Spokane, Tumwater, and Yakima.

(2) Copies of statutes and regulations cited in this chapter may be obtained from the ecology headquarters office in Olympia.

(3) Ecology actions pertaining to the determination of which areas are suffering from drought conditions, the issuance of orders declaring areas to be suffering from drought conditions, plus any actions concerning protests of such declarations or petitions for consideration for such a designation will be conducted by the ecology headquarters office, water resources program.

(4) Ecology actions pertaining to emergency drought permits and water right transfers will be conducted by the appropriate ecology regional office.

(5) The ecology headquarters office, water resources program, will administer funding assistance and manage the drought relief program in accordance with the provisions of this chapter.

[Statutory Authority: RCW 43.83B.420. 91-03-081 (Order 90-53), § 173-166-120, filed 1/17/91, effective 2/17/91.]

WAC 173-166-130 Appeals. All final written decisions of the department of ecology made pursuant to this chapter shall be subject to review by the pollution control hearings board in accordance with the provisions of chapter 43.21B RCW.

[Statutory Authority: RCW 43.83B.420. 91-03-081 (Order 90-53), § 173-166-130, filed 1/17/91, effective 2/17/91.]

WAC 173-166-140 Regulation review. The department of ecology will initiate a review of the rules established in this chapter whenever new information,

changing conditions, or statutory modifications make it necessary to consider revisions.

[Statutory Authority: RCW 43.83B.420. 91-03-081 (Order 90-53), § 173-166-140, filed 1/17/91, effective 2/17/91.]

Chapter 173-181 WAC

FACILITY CONTINGENCY PLAN AND RESPONSE CONTRACTOR STANDARDS

WAC

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WAC 173-181-010 Purpose. The purpose of this chapter is to establish onshore and offshore facility oil spill contingency plan requirements and response contractor standards which, when followed, will:

(1) Maximize the effectiveness and timeliness of oil spill response by responsible parties and response contractors;

(2) Ensure readiness of equipment and personnel;

(3) Support coordination with state, federal, and other contingency plans; and

(4) Provide improved protection of Washington waters and natural resources from the impacts of oil spills.

[Statutory Authority: RCW 90.48.035. 91-22-087 (Order 91-12), § 173-181-010, filed 11/5/91, effective 12/6/91.]

WAC 173-181-020 Authority. RCW 90.48.371, 90.48.372, 90.48.373, 90.48.374, 90.48.375, 90.48.376, 90.48.377, and 90.48.380, as recodified by section 1115, chapter 200, Laws of 1991, provide statutory authority for the contingency plan preparation and review requirements and response contractor standards established by this chapter.

[Statutory Authority: RCW 90.48.035. 91-22-087 (Order 91-12), § 173-181-020, filed 11/5/91, effective 12/6/91.]

WAC 173-181-030 Definitions. (1) "Average efficiency factor" means a factor used to estimate limitations of equipment efficiency from variables such as sea state, current velocity, or visibility.

(2) "Best achievable technology" means the technology that provides the greatest degree of protection, taking into consideration processes that are developed, or could feasibly be developed given overall reasonable expenditures on research and development, and processes that are currently in use. In determining what is best

achievable technology, the director shall consider the effectiveness, engineering feasibility, and commercial availability of the technology.

(3) "Board" means the pollution control hearings board.

(4) "Bulk" means material that is stored or transported in a loose, unpackaged liquid, powder, or granular form capable of being conveyed by a pipe, bucket, chute, or belt system.

(5) "Cargo vessel" means a self-propelled ship in commerce, other than a tank vessel or a passenger vessel, of greater than three hundred or more gross tons, including but not limited to commercial fish processing vessels and freighters.

(6) "Department" means the state of Washington department of ecology.

(7) "Director" means the director of the state of Washington department of ecology.

(8) "Discharge" means any spilling, leaking, pumping, pouring, emitting, emptying, or dumping.

(9)(a) "Facility" means any structure, group of structures, equipment, pipeline, or device, other than a vessel, located on or near the navigable waters of the state that (both):

(i) Transfers oil in bulk to or from a tank vessel or pipeline; and

(ii) Is used for producing, storing, handling, transferring, processing, or transporting oil in bulk.

(b) A facility does not include any:

(i) Railroad car, motor vehicle, or other rolling stock while transporting oil over the highways or rail lines of this state;

(ii) Underground storage tank regulated by the department or a local government under chapter 90.76 RCW;

(iii) Motor vehicle motor fuel outlet;

(iv) Facility that is operated as part of an exempt agricultural activity as provided in RCW 82.04.330; or

(v) Marine fuel outlet that does not dispense more than three thousand gallons of fuel to a ship that is not a tank vessel, cargo vessel, or passenger vessel, in a single transaction.

(10) "Gross ton" means a vessel's approximate volume as defined under Title 46, United States Code of Federal Regulations, Part 69.

(11) "Interim storage site" means a site used to temporarily store recovered oil or oily waste until the recovered oil or oily waste is disposed of at a permanent disposal site. Interim storage sites include trucks, barges, and other vehicles used to store recovered oil or oily waste until transport begins.

(12) "Liquefied petroleum gas" means petroleum gas converted to a liquid state by pressure and cooling, including but not limited to natural gas, butane, and propane.

(13) "Marine facility" means any facility used for tank vessel wharfage or anchorage, including any equipment used for the purpose of handling or transferring oil in bulk to or from a tank vessel.

(14) "Maximum extent practicable" means the highest level of effectiveness that can be achieved through

staffing levels, training procedures, and best achievable technology. In determining what is the maximum extent practicable, the director shall consider the effectiveness, engineering feasibility, commercial availability, safety, and the cost of the measures.

(15) "Navigable waters of the state" means those waters of the state, and their adjoining shorelines, that are subject to the ebb and flow of the tide and/or are presently used, have been used in the past, or may be susceptible for use to transport intrastate, interstate, or foreign commerce.

(16) "Offshore facility" means any facility, as defined in subsection (9) of this section, located in, on, or under any of the navigable waters of the state, but does not include a facility, any part of which is located in, on, or under any land of the state, other than submerged land.

(17) "Oil" or "oils" means naturally occurring liquid hydrocarbons at atmospheric temperature and pressure coming from the earth, including condensate and natural gasoline, and any fractionation thereof, including, but not limited to, crude oil, petroleum, gasoline, fuel oil, diesel oil, oil sludge, oil refuse, and oil mixed with wastes other than dredged spoil. Oil does not include any substance listed in Table 302.4 of 40 C.F.R. Part 302 adopted August 14, 1989, under section 101(14) of the Federal Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended by P.L. 99-499.

(18) "Oily waste" means oil contaminated waste resulting from an oil spill or oil spill response operations.

(19) "Onshore facility" means any facility, as defined in subsection (9) of this section, any part of which is located in, on, or under any land of the state, other than submerged land, that because of its location, could reasonably be expected to cause substantial harm to the environment by discharging oil into or on the navigable waters of the state or the adjoining shorelines.

(20)(a) "Owner or operator" means:

(i) In the case of an onshore or offshore facility, any person owning or operating the facility; and

(ii) In the case of an abandoned onshore or offshore facility, the person who owned or operated the facility immediately before its abandonment.

(b) "Operator" does not include any person who owns the land underlying a facility if the person is not involved in the operations of the facility.

(21) "Passenger vessel" means a ship of greater than three hundred or more gross tons or five hundred or more international gross tons carrying passengers for compensation.

(22) "Person" means any political subdivision, government agency, municipality, industry, public or private corporation, copartnership, association, firm, individual, or any other entity whatsoever.

(23) "Pipeline" means, for the purposes of subsection (9)(a)(i) of this section, a pipeline connected to a marine facility, and not owned or operated by the facility referred to in subsection (9)(a) of this section.

(24) "Plan" means oil spill response, cleanup, and disposal contingency plan.

(25) "Primary response contractor" means a response contractor that is directly responsible to a contingency plan holder, either by a contract or written agreement.

(26) "Response contractor" means an individual, organization, association, or cooperative that provides or intends to provide equipment and/or personnel for oil spill containment, cleanup, and/or removal activities.

(27) "Ship" means any boat, ship, vessel, barge, or other floating craft of any kind.

(28) "Spill" means an unauthorized discharge of oil which enters waters of the state.

(29) "Tank vessel" means a ship that is constructed or adapted to carry, or that carries, oil in bulk as cargo or cargo residue, and that:

(a) Operates on the waters of the state; or

(b) Transfers oil in a port or place subject to the jurisdiction of this state.

(30) "Waters of the state" includes lakes, rivers, ponds, streams, inland waters, underground water, salt waters, estuaries, tidal flats, beaches and lands adjoining the seacoast of the state, sewers, and all other surface waters and watercourses within the jurisdiction of the state of Washington.

(31) "Worst case spill" means:

(a) For an offshore facility, the largest possible spill considering storage, production, and transfer capacity complicated by adverse weather conditions (during which wind, reduced visibility, and sea state hinder but do not preclude normal response operations); or

(b) For an onshore facility, the entire volume of the largest above ground storage tank on the facility site complicated by adverse weather conditions (during which wind, reduced visibility, and sea state hinder but do not preclude normal response operations), unless the department determines that a larger volume is more appropriate given a particular facility's site characteristics and storage, production, and transfer capacity.

[Statutory Authority: RCW 90.48.035. 91-22-087 (Order 91-12), § 173-181-030, filed 11/5/91, effective 12/6/91.]

WAC 173-181-035 Applicability. (1) Oil spill response, cleanup, and disposal contingency plans must be prepared, submitted, and used pursuant to requirements in this chapter, for onshore and offshore facilities.

(2) Federal plans required under 33 C.F.R. 154, 40 C.F.R. 109, 40 C.F.R. 110, or the Federal Oil Pollution Act of 1990 may be submitted to satisfy plan requirements under this chapter if the department deems that such federal requirements possess approval criteria which equal or exceed those of the department.

(3) Response contractors must be approved by the department before they may serve as primary response contractors for an onshore or offshore facility contingency plan.

(4) For those sections of contingency plans which address liquified petroleum gases, the department may excuse plan holders from meeting requirements in this chapter that are not applicable to spill response for liquified petroleum gases due to their physical properties.

[Statutory Authority: RCW 90.48.035. 91-22-087 (Order 91-12), § 173-181-035, filed 11/5/91, effective 12/6/91.]

WAC 173-181-040 Plan preparation. (1) Each onshore and offshore facility shall prepare a contingency plan for the containment and cleanup of oil spills from the facility into the waters of the state, and for the protection of fisheries and wildlife, other natural resources, and public or private property from such spills.

(2) Plans shall be in a form usable for oil spill control, containment, cleanup, and disposal operations and shall be capable of being located according to requirements in WAC 173-181-075.

(3) Plans shall be thorough and contain enough information, analyses, supporting data, and documentation to demonstrate the plan holder's ability to meet the requirements of this chapter.

(4) Plans shall be designed to be capable to the maximum extent practicable, when implemented, of promptly and properly removing oil and minimizing environmental damage from a variety of spill sizes, including small chronic spills, and worst case spills. At a minimum, plans shall meet the criteria specified in WAC 173-181-045 and 173-181-050; criteria are presented in suggested but not requisite order.

[Statutory Authority: RCW 90.48.035. 91-22-087 (Order 91-12), § 173-181-040, filed 11/5/91, effective 12/6/91.]

WAC 173-181-045 Plan format requirements. (1) Plans shall be prepared using a combined narrative and graphic format which facilitates both the study of detailed spill response information and quick access to general information given emergency information needs and time constraints.

(2) Plans shall be divided into a system of chapters and appendices. Chapters and sections shall be numbered. Chapters should be reserved primarily for information on emergency response and cleanup operations, such as notification procedures or description of the spill response organization structure. Appendices should be used primarily for supplemental background and documentation information, such as response scenarios or description of drills and exercises.

(3) A system of index tabs shall be used to provide easy reference to particular chapters or appendices.

(4) Plans shall be formatted to allow replacement of chapter or appendix pages with revisions without requiring replacement of the entire plan.

(5) A simplified field document suitable for on-site use in the event of a spill and summarizing key notification and action elements of the plan shall also be prepared and submitted as part of the plan.

(6) Computerized plans may be submitted to the department in addition to a hard copy. Computerized plans, accompanied by a hard copy, may be used to meet the requirements of WAC 173-181-075.

[Statutory Authority: RCW 90.48.035. 91-22-087 (Order 91-12), § 173-181-045, filed 11/5/91, effective 12/6/91.]

WAC 173-181-050 Plan content requirements. (1) Each plan shall contain a submittal agreement which:

(a) Includes the name, address, and phone number of the submitting party;

(b) Verifies acceptance of the plan, including any incorporated contingency plans, by the owner or operator of the facility by either signature of the owner or operator or signature by a person with authority to bind the corporation which owns such facility;

(c) Commits execution of the plan, including any incorporated contingency plans, by the owner or operator of the facility, and verifies authority for the plan holder to make appropriate expenditures in order to execute plan provisions; and

(d) Includes the name, location, and address of the facility, type of facility, starting date of operations, types of oil(s) handled, and oil volume capacity.

(2) Each plan shall include a log sheet to record amendments to the plan. The log sheet shall be placed at the front of the plan. The log sheet shall provide for a record of the section amended, the date that the old section was replaced with the amended section, verification that the department was notified of the amendment pursuant to WAC 173-181-080(3), and the initials of the individual making the change. A description of the amendment and its purpose shall also be included in the log sheet, or filed in the form of an amendment letter immediately after the log sheet.

(3) Each plan shall include a detailed table of contents based on chapter, section, and appendix numbers and titles, as well as tables and figures.

(4) Each plan shall describe the purpose and scope of that plan, including:

(a) The geographic area covered by the plan;

(b) The onshore facility or offshore facility operations covered by the plan; and

(c) The size of the worst case spill from the facility.

(5) Each plan shall describe the procedures and time periods corresponding to updates of the plan and distribution of the plan and updates to affected and interested parties.

(6) Each plan shall present a strategy to ensure use of the plan for spill response and cleanup operations pursuant to requirements in WAC 173-181-075.

(7) Each plan shall describe the organization of the spill response system, including all task assignments addressed by requirements of this section. This description shall identify the role of an incident commander or primary spill response manager, who shall possess the lead authority in spill response and cleanup decisions. The plan shall describe how a smooth transfer of the incident commander or primary spill response manager position between individuals will be accomplished. An organizational diagram depicting the chain of command shall also be included.

(8)(a) For each primary response contractor which a plan holder may or does rely on to perform or supplement its response operations within the geographic area covered by the plan, the plan shall state that contractor's name, address, phone number, or other means of contact at any time of the day, and response capability (e.g., land spills only). For each primary response contractor, the plan shall include a letter of intent signed by the

primary response contractor which indicates the contractor's willingness to respond. Copies of written contracts or agreements with primary response contractors shall be available for inspection, if requested by the department.

(b) If a plan holder is a member of an oil spill response cooperative and relies on that cooperative to perform or supplement its response operations within the geographic area covered by the plan, the plan shall state the cooperative's name, address, phone number, and response capability. The plan shall also include proof of cooperative membership.

(c) Plans which rely on primary response contractors shall rely only on primary response contractors approved by the department under WAC 173-181-090.

(9) Each plan shall briefly describe its relation to all applicable local, state, regional, and federal government response plans. Plans shall address how the plan holder's response organization will be coordinated with an incident command system utilized by state and federal authorities.

(10) Each plan shall list procedures which will be used to detect and document the presence and size of a spill, including methods which are effective during low visibility conditions. In addition, the plan shall describe the use, if any, of mechanical or electronic monitoring or alarm systems (including threshold sensitivities) used to detect oil discharges into adjacent land or water from tanks, pipes, manifolds, and other transfer or storage equipment.

(11) Each plan shall describe procedures which will be taken to immediately notify appropriate parties that a spill has occurred.

(a) The plan holder shall maintain a notification call out list which shall be available if requested by the department for inspection, and which:

(i) Provides a contact at any time of the day for all spill response personnel identified under subsection (7) of this section, including the contact's name, position title, phone number or other means of contact for any time of the day, and an alternate contact in the event the individual is unavailable;

(ii) Lists the name and phone number of all government agencies which must be notified in the event of an oil spill pursuant to requirements under RCW 90.48.360 as recodified by section 1115, chapter 200, Laws of 1991, and other state and federal requirements; and

(iii) Establishes a clear order of priority for immediate notification;

(b) The plan shall identify a central reporting office or individual who is responsible for implementing the call out process; and

(c) The plan shall utilize a system of categorizing incident type and severity. Plan holders are encouraged to utilize the system established by the department in the Washington state-wide master oil and hazardous substance spill contingency plan as developed pursuant to RCW 90.48.378 as recodified by section 1115, chapter 200, Laws of 1991.

(12) Each plan shall describe the personnel (including contract personnel) available to respond to an oil spill, including:

(a) A job description for each type of spill response position needed as indicated in the spill response organization scheme addressed in subsection (7) of this section;

(b) The number of personnel available to perform each type of spill response position;

(c) Arrangements for prepositioning personnel at strategic locations which will meet criteria pursuant to WAC 173-181-065 (3)(d);

(d) The type and frequency of spill response operations and safety training that each individual in a spill response position receives to attain the level of qualification demanded by their job description; and

(e) The procedures, if any, to train and use volunteers willing to assist in spill response operations. Volunteer procedures for wildlife rescue shall comply with rules adopted by the Washington department of wildlife.

(13)(a) Each plan shall list the type, quantity, age, location, maintenance schedule, and availability of equipment used during spill response, including equipment used for oil containment, recovery, storage, and removal, shoreline and adjacent lands cleanup, wildlife rescue and rehabilitation, and communication.

(b) For equipment listed under (a) of this subsection that is not owned by or available exclusively to the plan holder, the plan shall also estimate the extent to which other contingency plans rely on that same equipment.

(c) For oil containment and recovery equipment, the plan also shall include equipment make and model, and the manufacturer's nameplate capacity of the response equipment (in gallons per minute), and applicable design limits (e.g., maximum wave height capability; inland waters vs. open ocean).

(d) Based on information described in (c) of this subsection, the plan shall state the maximum amount of oil which could be recovered per twenty-four-hour period.

(e) For purposes of determining plan adequacy under WAC 173-181-065, and to assess realistic capabilities based on potential limitations by weather, sea state, and other variables, the data presented in (c) and (d) of this subsection will be multiplied by an average efficiency factor of twenty percent. The department will apply a higher efficiency factor for equipment listed in a plan if that plan holder provides adequate evidence that the higher efficiency factor is warranted for particular equipment. The department may assign a lower efficiency factor to particular equipment listed in a plan if it determines that the performance of that equipment warrants such a reduction.

(f) The plan shall provide arrangements for prepositioning of oil spill response equipment at strategic locations which will meet criteria pursuant to WAC 173-181-065 (3)(d).

(14) Each plan shall describe the communication system used for spill notification and response operations, including:

(a) Communication procedures;

(b) The communication function (e.g., ground-to-air) assigned to each channel or frequency used; and

(c) The maximum geographic range for each channel or frequency used.

(15) Each plan shall describe the process to establish sites needed for spill response operations, including location or location criteria for:

(a) A central command post;

(b) A central communications post if located away from the command post; and

(c) Equipment and personnel staging areas.

(16)(a) Each plan shall present a flowchart or decision tree describing the procession of each major stage of spill response operations from spill discovery to completion of cleanup. The flowchart or decision tree shall describe the general order and priority in which key spill response activities are performed.

(b) Each plan shall describe all key spill response operations in checklist form, to be used by spill response managers in the event of an oil spill.

(17)(a) Each plan shall list the local, state, and other government authorities responsible for the emergency procedures peripheral to spill containment and cleanup, including:

(i) Procedures to control fires and explosions, and to rescue people or property threatened by fire or explosion;

(ii) Procedures to control ground and air traffic which may interfere with spill response operations; and

(iii) Procedures to manage access to the spill response site.

(b) Each plan shall describe the plan holder's role in these emergency operation procedures prior to the arrival of proper authorities.

(18) Each plan shall describe equipment and procedures to be used by the facility personnel to minimize the magnitude of the spill and minimize structural damage which may increase the quantity of oil spilled. Damage control procedures shall include methods to slow or stop pipeline, storage tank, and other leaks, and methods to achieve immediate emergency shutdown.

(19) Each plan shall describe, in detail, methods to contain spilled oil and remove it from the environment. Methods shall describe deployment of equipment and personnel, using diagrams or other visual aids when possible. Response methods covered must include:

(a) Surveillance methods used to detect and track the extent and movement of the spill;

(b) Methods to contain and remove oil in offshore waters;

(c) Methods to contain and remove oil in near-shore waters, including shoreline protection procedures and oil diversion/pooling procedures; and

(d) Methods to contain and remove oil, including surface oil, subsurface oil, and oiled debris and vegetation, from a variety of shoreline, adjacent land, and beach types.

(20) Each plan shall briefly describe initial equipment and personnel deployment activities which will accomplish the response standard listed in WAC 173-181-065 (3)(d), and provide an estimate of the actual execution time.

(21) If the plan holder will use dispersants, coagulants, bioremediants, or other chemical agents for

response operations, conditions permitting, the plan shall describe:

- (a) Type and toxicity of chemicals;
- (b) Under what conditions they will be applied in conformance with all applicable local, state, and federal requirements, including the state-wide master oil and hazardous substance spill contingency plan;
- (c) Methods of deployment; and
- (d) Location and accessibility of supplies and deployment equipment.

(22) If the plan holder will use in-situ burning for response operations, conditions permitting, the plan shall describe:

- (a) Type of burning operations;
- (b) Under what conditions burning will be applied in conformance with all applicable local, state, and federal requirements, including the state-wide master oil and hazardous substance spill contingency plan;
- (c) Methods of application; and
- (d) Location and accessibility of supplies and deployment equipment.

(23) Each plan shall describe how environmental protection will be achieved, including:

- (a) Protection of sensitive shoreline and island habitat by diverting or blocking oil movement;
- (b) Priorities for sensitive area protection in the geographic area covered by the plan as designated by the department in environmentally sensitive area maps referenced in the state-wide master oil and hazardous substance spill contingency plan;
- (c) Rescue and rehabilitation of birds, marine mammals, and other wildlife contaminated or otherwise affected by the oil spill in compliance with rules adopted by the Washington department of wildlife; and
- (d) Measures taken to reduce damages to the environment caused by shoreline and adjacent land cleanup operations, such as impacts to sensitive shoreline habitat by heavy machinery.

(24)(a) Each plan shall describe site criteria and methods used for interim storage of oil recovered and oily wastes generated during response and cleanup operations, including sites available within the facility. Interim storage methods and sites shall be designed to prevent contamination by recovered oil and oily wastes.

(b) If use of interim storage sites will require approval by local, state, or federal officials, the plan shall include information which could expedite the approval process, including a list of appropriate contacts and a brief description of procedures to follow for each applicable approval process.

(c) Each plan shall describe methods and sites used for permanent disposal of oil recovered and oily wastes generated during response and cleanup operations.

(d) Interim storage and permanent disposal methods and sites shall be sufficient to keep up with oil recovery operations and handle the entire volume of oil recovered and oily wastes generated.

(e) Interim storage and permanent disposal methods and sites shall comply with all applicable local, state, and federal requirements.

(25) Each plan shall describe procedures to protect the health and safety of oil spill response workers, volunteers, and other individuals on-site. Provisions for training, decontamination facilities, safety gear, and a safety officer position shall be addressed.

(26) Each plan shall explain post-spill review procedures, including methods to review both the effectiveness of the plan and the need for plan amendments. Post-spill procedures shall provide for a debrief of the department.

(27)(a) Each plan shall describe the schedule and type of drills and other exercises which will be practiced to ensure readiness of the plan elements, including drills which satisfy WAC 173-181-070(3).

(b) Tests of internal call out procedures shall be performed at least once every ninety calendar days and documented by the plan holder. Such tests are only required to involve notification, not actual deployment.

(28) Unless the plan holder has received approval for a prevention plan submitted pursuant to chapter 200, Laws of 1991, each onshore facility and offshore facility plan shall describe measures taken to reduce the likelihood that a spill will occur which exceed or are not covered by existing state and federal requirements, including:

- (a) Type and frequency of personnel training on methods to minimize operational risks;
- (b) Methods to ensure equipment integrity, including inspection and maintenance schedules;
- (c) Methods to reduce spills during transfer operations, including overfill prevention; and
- (d) Secondary containment for tanks, pipes, manifolds, or other structures used for storage or movement of oil other than liquefied petroleum gases.

(29) Each facility plan shall list the spill risk variables within the geographic area covered by the plan, including:

- (a) Types, physical properties, and amounts of oil handled;
- (b) A written description and map indicating site topography, storm water and other drainage systems, mooring areas, pipelines, tanks, and other oil processing, storage, and transfer sites and operations; and
- (c) A written description of sites or operations with a history of or high potential for oil spills.

(30) Each plan shall list the environmental variables within the geographic area covered by the plan, including:

- (a) Natural resources, including coastal and aquatic habitat types and sensitivity by season, breeding sites, presence of state or federally listed endangered or threatened species, and presence of commercial and recreational species (environmental variable information may be obtained directly from environmentally sensitive area maps referenced in the state-wide master oil and hazardous substance spill contingency plan);
- (b) Public resources, including public beaches, water intakes, drinking water supplies, and marinas;
- (c) Seasonal hydrographic and climatic conditions; and

(d) Physical geographic features, including relative isolation of coastal regions, beach types, and other geological characteristics.

(31) Each plan shall list the logistical resources within the geographic area covered by the plan, including:

(a) Facilities for fire services, medical services, and accommodations; and

(b) Shoreline access areas, including boat launches.

(32)(a) Each plan shall describe detailed, plausible, step-by-step response scenarios for:

(i) A small oil spill less than five hundred gallons; and

(ii) A worst case spill as described in the plan pursuant to subsection (4)(c) of this section.

(b) Each scenario description shall include:

(i) The circumstances surrounding the spill, including size, type, location, climatic and hydrographic conditions, time, and cause;

(ii) An estimate of oil movement during the first seventy-two hours, including likely shoreline contact points; and

(iii) Estimates of response time and percent recovery for each major phase of operations.

(c) If a plan applies to multiple facilities, each scenario description shall discuss implementation of the plan in the event of simultaneous separate spills.

(33) Each plan shall include a glossary of technical terms and abbreviations used in the plan.

[Statutory Authority: RCW 90.48.035, 91-22-087 (Order 91-12), § 173-181-050, filed 11/5/91, effective 12/6/91.]

WAC 173-181-060 Plan submittal. (1)(a) Plans for onshore facilities capable of storing one million gallons or more of oil, and offshore facilities shall be submitted to the department within six months after adoption of this chapter.

(b) All other onshore facilities shall submit plans to the department by January 1, 1993.

(2) Any onshore or offshore facility that first begins operating after the above deadlines shall submit a plan to the department at least sixty-five calendar days prior to the beginning of operations.

(3) Three copies of the plan and appendices shall be delivered to:

Spill Management Section,
Contingency Plan Review
Washington Department of Ecology
PV-11
P.O. Box 47600
Olympia, WA 98504-7600

(4) Onshore and offshore facility plans may be submitted by:

(a) The facility owner or operator; or

(b) A primary response contractor approved by the department pursuant to WAC 173-181-090, in conformance with requirements under WAC 173-181-050(1).

(5) A single plan may be submitted for more than one facility, provided that the plan contents meet the requirements in this chapter for each facility listed.

(6) The plan submitter may request that proprietary information be kept confidential under RCW 43.21B-.160.

[Statutory Authority: RCW 90.48.035, 91-22-087 (Order 91-12), § 173-181-060, filed 11/5/91, effective 12/6/91.]

WAC 173-181-065 Plan review. (1) The department shall endeavor to review each plan in sixty-five calendar days. Upon receipt of a plan, the department shall evaluate promptly whether the plan is incomplete. If the department determines that a plan is incomplete, the submitter shall be notified of deficiencies. The review period shall not begin until the department receives a complete plan.

(2) The department shall regularly notify interested parties of any contingency plans which are under review by the department, and make plans available for review to all department programs, other state, local, and federal agencies, and the public. The department shall accept comments from these interested parties on the plan during the first thirty calendar days of review by the department.

(3) A plan shall be approved if, in addition to meeting criteria in WAC 173-181-045 and 173-181-050, it demonstrates that when implemented, it can:

(a) To the maximum extent practicable, provide for prompt and proper response to and cleanup of a variety of spills, including small chronic spills, and worst case spills;

(b) To the maximum extent practicable, provide for prompt and proper protection of the environment from oil spills;

(c) Provide for immediate notification and mobilization of resources upon discovery of a spill;

(d) Provide for initial deployment of response equipment and personnel at the site of the spill within one hour of the plan holder's awareness that a spill has occurred given suitable safety conditions; and

(e) Use as primary response contractors, only those response contractors approved by the department pursuant to WAC 173-181-090.

(4) When reviewing plans, the department shall, in addition to the above criteria, consider the following:

(a) The volume and type of oil(s) addressed by the plan;

(b) The history and circumstances of prior spills by similar types of facilities, including spill reports by department on-scene coordinators;

(c) The presence of operating hazards;

(d) The sensitivity and value of natural resources within the geographic area covered by the plan;

(e) Any pertinent local, state, federal agency, or public comments received on the plan;

(f) The extent to which reasonable, cost-effective spill prevention measures have been incorporated into the plan.

(5) The department may approve a plan without a full review as per provisions of this section if that plan has been approved by a federal agency or other state which the department has deemed to possess approval criteria which equal or exceed those of the department.

(6) The department shall prepare a manual to aid department staff responsible for plan review. This manual shall be made available to provide guidance for plan preparers. While the manual will be used as a tool to conduct review of a plan, the department will not be bound by the contents of the manual.

(7) The department shall endeavor to notify the facility owner or operator within five working days after the review is completed whether the plan has been approved.

(a) If the plan receives approval, the facility owner or operator shall receive a certificate of approval describing the terms of approval, including expiration dates.

(b)(i) The department may approve a plan conditionally by requiring a facility owner or operator to operate with specific precautionary measures until unacceptable components of the plan are resubmitted and approved.

(ii) Precautionary measures may include, but are not limited to, reducing oil transfer rates, increasing personnel levels, or restricting operations to daylight hours. Precautionary measures may also include additional requirements to ensure availability of response equipment.

(iii) A plan holder shall have thirty calendar days after the department gives notification of conditional status to submit and implement required changes to the department, with the option for an extension at the department's discretion. Plan holders who fail to meet conditional requirements or provide required changes in the time allowed shall lose conditional approval status.

(c) If plan approval is denied, the facility owner or operator shall receive an explanation of the factors for disapproval and a list of actions to be taken to gain approval. The facility shall not continue oil storage, transfer, production, or other operations until a plan for that facility has been approved.

(d) A plan holder may appeal the department's decision under WAC 173-04-010.

(e) If a plan holder demonstrates an inability to comply with an approved contingency plan or otherwise fails to comply with requirements of this chapter, the department may, at its discretion:

(i) Place conditions on approval pursuant to (b) of this subsection; or

(ii) Revoke its approval pursuant to (c) of this subsection.

(f) Approval of a plan by the department does not constitute an express assurance regarding the adequacy of the plan nor constitute a defense to liability imposed under state law.

(8) The department shall work with the office of marine safety to ensure that no duplication of regulatory responsibilities occurs in the review of contingency plans from marine facilities.

[Statutory Authority: RCW 90.48.035. 91-22-087 (Order 91-12), § 173-181-065, filed 11/5/91, effective 12/6/91.]

WAC 173-181-070 Drills and inspections. (1) For the purpose of determining plan adequacy, the department may require a plan holder to participate in one unannounced full deployment drill annually. The department shall choose plan holders for such drills through a random process.

(2) The department may require a plan holder to participate in one announced, limited deployment drill annually. The department shall choose plan holders for such drills through a random process.

(3) Requirements under subsections (1) and (2) of this section may be met:

(a) By drills led by other state, local, or federal authorities if the department finds that the criteria for drill execution and review equal or exceed those of the department;

(b) By drills initiated by the plan holder, if the department is involved in participation, review, and evaluation of the drill, and if the department finds that the drill adequately tests the plan; and

(c) By responses to actual spill events, if the department is involved in participation, review, and evaluation of the spill response, and if the department finds that the spill event adequately tests the plan.

(4) The department may excuse a primary response contractor from full deployment participation in more than one drill, if in the past twelve months, the primary response contractor has performed to the department's satisfaction in a full deployment drill or an exercise listed in subsection (3) of this section.

(5) The department shall review the degree to which the specifications of the plan are implemented during the drill. The department shall endeavor to notify the facility owner or operator of the review results within thirty calendar days following the drill. If the department finds deficiencies in the plan, the department shall report those deficiencies to the plan holder and require the plan holder to make specific amendments to the plan pursuant to requirements in WAC 173-181-080.

(6) The department shall publish an annual report on plan drills, including a summary of response times, actual equipment and personnel use, recommendations for plan requirement changes, and industry response to those recommendations.

(7) The department may require the facility owner or operator to participate in additional drills beyond those required in subsections (1) and (2) of this section if the department is not satisfied with the adequacy of the plan during exercises or spill response events.

(8) The department may verify compliance with this chapter by unannounced inspections in accordance with RCW 90.48.090.

[Statutory Authority: RCW 90.48.035. 91-22-087 (Order 91-12), § 173-181-070, filed 11/5/91, effective 12/6/91.]

WAC 173-181-075 Plan maintenance and use. (1) At least one copy of the plan shall be kept in a central location accessible at any time by the incident commander or spill response manager named in accordance with WAC 173-181-050(7). Each facility covered by the plan shall possess a copy of the plan and keep it in a conspicuous and accessible location.

(2) A field document prepared under WAC 173-181-045(5) shall be available to all appropriate personnel.

(3) A facility owner or operator shall implement the plan in the event of a spill. The facility owner or operator must receive approval from the department before it

conducts any major aspect of the spill response contrary to the plan unless:

(a) Such actions are necessary to protect human health and safety;

(b) Such actions must be performed immediately in response to unforeseen conditions to avoid additional environmental damage; or

(c) The plan holder has been directed to perform such actions by the department or the United States Coast Guard.

[Statutory Authority: RCW 90.48.035. 91-22-087 (Order 91-12), § 173-181-075, filed 11/5/91, effective 12/6/91.]

WAC 173-181-080 Plan update timeline. (1) The department shall be notified in writing as soon as possible and within twenty-four hours of any significant change which could affect implementation of the plan, including a substantial decrease in available spill response equipment or personnel. The plan holder shall also provide a schedule for the prompt return of the plan to full operational status. A facsimile will be considered written notice for the purposes of this subsection. Changes which are not considered significant include minor variations in equipment or personnel characteristics, call out lists, or operating procedures. Failure to notify the department of significant changes shall be considered noncompliance with this chapter and subject to provisions of WAC 173-181-065 (7)(e).

(2) If the department finds that, as a result of the change, the plan no longer meets approval criteria pursuant to WAC 173-181-065, the department may, in its discretion, place conditions on approval or revoke approval in accordance to WAC 173-181-065 (7)(e). Plan holders are encouraged to maintain back-up response resources in order to ensure that their plans can always be fully implemented.

(3) Within thirty calendar days of an approved change, the facility owner or operator shall distribute the amended page(s) of the plan to the department and other plan holders.

(4) Plans shall be reviewed by the department every five years pursuant to WAC 173-181-065. Plans shall be submitted for reapproval unless the plan holder submits a letter requesting that the department review the plan already in the department's possession. The plan holder shall submit the plan or such a letter at least sixty-five calendar days in advance of the plan expiration date.

(5) The department may review a plan following any spill for which the plan holder is responsible.

[Statutory Authority: RCW 90.48.035. 91-22-087 (Order 91-12), § 173-181-080, filed 11/5/91, effective 12/6/91.]

WAC 173-181-085 Noncompliance with plan requirements. (1) Any violation of this chapter may be subject to the enforcement and penalty sanctions of RCW 90.48.376 as recodified by section 1115, chapter 200, Laws of 1991.

(2) The department may notify the secretary of state to suspend the business license of any onshore or offshore facility or other person that is in violation of this

section. The department may assess a civil penalty of up to one hundred thousand dollars against any person who is in violation of this section. Each day that a facility or person is in violation of this section shall be considered a separate violation.

[Statutory Authority: RCW 90.48.035. 91-22-087 (Order 91-12), § 173-181-085, filed 11/5/91, effective 12/6/91.]

WAC 173-181-090 Contractor standards. (1) Primary response contractors listed in an offshore or onshore facility contingency plan must be approved by the department. Response contractors which are listed in a contingency plan only as subcontractors to a primary response contractor do not have to be approved by the department.

(2) Primary response contractors shall be approved by the department subject to the following conditions:

(a) Equipment, equipment maintenance, and equipment and personnel deployment readiness must be verifiable by departmental inspection. Any resources not on site at the time of an inspection must be accounted for by company records. Approval of personnel readiness shall require capability of a one hour call out time in which personnel must be able to begin mobilization of response efforts. Equipment readiness shall include being available and able to be deployed to a spill site without delay, not counting normal maintenance and repairs;

(b) Response personnel shall comply with all appropriate safety and training requirements listed in WAC 296-62-300. Training records may be audited for verification; and

(c) Determination of an acceptable safety history by review of pertinent records on a case-by-case, best-professional-judgment basis. Lack of a safety history will not be grounds for denying approval.

(3) The department shall work with the office of marine safety to ensure that no duplication of regulatory responsibilities occurs in the review of primary response contractors.

[Statutory Authority: RCW 90.48.035. 91-22-087 (Order 91-12), § 173-181-090, filed 11/5/91, effective 12/6/91.]

WAC 173-181-092 Contractor approval information required. To apply for approval, contractors shall submit the following items to the department:

(1) Contractor's name, UBI number, address, and phone number;

(2) Response capability, including geographic area of response coverage, with any exclusions;

(3) The types of oil and media (e.g., marine, fresh water, or land) to which the contractor is willing and able to respond;

(4) An organizational diagram depicting chain of command;

(5) A call out list as described in WAC 173-181-050 (11)(a)(i);

(6) A list of all response equipment and personnel pursuant to WAC 173-181-050 (12)(a), (b), and (d) and (13)(a) and (c); and

(7) A list of all OSHA/WISHA citations and reports, lost-time accidents, and accident claims related to oil

spill response operations for the last five years. Any applicant with less than five years under their current business name or organization shall provide a listing of any oil spill response contract businesses owned or operated by the principals in the new company within the last five years, including a brief description of the companies and their safety history information listed above.

[Statutory Authority: RCW 90.48.035, 91-22-087 (Order 91-12), § 173-181-092, filed 11/5/91, effective 12/6/91.]

WAC 173-181-094 Submittal of contractor approval applications. (1) Three copies of the contractor's approval application shall be delivered to:

Spill Management Section,
Response Contractor Approval
Washington Department of Ecology
PV-11
P.O. Box 47600
Olympia, WA 98504-7600

(2) Applications may be submitted at any time after adoption of this chapter. If submitted with a contingency plan, the information required pursuant to WAC 173-181-092 shall be presented separately.

[Statutory Authority: RCW 90.48.035, 91-22-087 (Order 91-12), § 173-181-094, filed 11/5/91, effective 12/6/91.]

WAC 173-181-096 Contractor application review.

(1) The department shall endeavor to review each application for primary response contractor approval in forty-five calendar days. Upon receipt of an application, the department shall evaluate promptly whether the application is incomplete. If the department determines that an application is incomplete, the submitter shall be notified of deficiencies. The forty-five day review period shall begin when the application is complete.

(2) An application shall be approved if it meets the conditions specified in WAC 173-181-090.

(3) The department shall endeavor to notify the applicant that the application has been approved/not approved within five working days after the review is completed.

(a) If the application is approved, the contractor shall receive a certificate of approval describing the terms of approval, including expiration dates.

(b) If the application is not approved, the contractor shall receive an explanation of the factors for disapproval and a list of actions to be taken to gain approval. The contractor may not act as a primary response contractor for a facility contingency plan until approved by the department.

(c) A contractor may appeal the department's decision under WAC 173-04-010.

(d) Approval of a response contractor by the department does not constitute an express assurance regarding the adequacy of the contractor nor constitute a defense to liability imposed under state law.

(4) Response contractor approvals shall be reviewed by the department every two years pursuant to WAC

173-181-094. Reapproval applications shall be submitted sixty calendar days in advance of the approval expiration date.

(5) An approved contractor shall notify the department in writing as soon as possible and within twenty-four hours of any significant change in the information reported in the approval application, such as a substantial change in equipment ownership. A facsimile received by the department will be considered written notice for the purposes of this subsection. Failure to notify the department may result in loss of approval status. Upon notification, the department may review the approval of the primary response contractor pursuant to this section. If the department determines that approval conditions are no longer met, approval may be withdrawn.

[Statutory Authority: RCW 90.48.035, 91-22-087 (Order 91-12), § 173-181-096, filed 11/5/91, effective 12/6/91.]

WAC 173-181-098 Severability. If any provision of this chapter is held invalid, the remainder of the rule is not affected.

[Statutory Authority: RCW 90.48.035, 91-22-087 (Order 91-12), § 173-181-098, filed 11/5/91, effective 12/6/91.]

Chapter 173-204 WAC

SEDIMENT MANAGEMENT STANDARDS

WAC

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WAC 173-204-100 Authority and purpose. (1) This chapter is promulgated under the authority of chapter 90.48 RCW, the Water Pollution Control Act; chapter 70.105D RCW, the Model Toxics Control Act; chapter 90.70 RCW, the Puget Sound Water Quality Authority Act; chapter 90.52 RCW, the Pollution Disclosure Act

of 1971; chapter 90.54 RCW, the Water Resources Act of 1971; and chapter 43.21C RCW, the state Environmental Policy Act, to establish marine, low salinity and freshwater surface sediment management standards for the state of Washington.

(2) The purpose of this chapter is to reduce and ultimately eliminate adverse effects on biological resources and significant health threats to humans from surface sediment contamination by:

(a) Establishing standards for the quality of surface sediments;

(b) Applying these standards as the basis for management and reduction of pollutant discharges; and

(c) Providing a management and decision process for the cleanup of contaminated sediments.

(3) Part III, Sediment quality standards of this chapter provides chemical concentration criteria, biological effects criteria, human health criteria, and other toxic, radioactive, biological, or deleterious substances criteria which identify surface sediments that have no adverse effects, including no acute or chronic adverse effects on biological resources and no significant health risk to humans, as defined in this regulation. The sediment quality standards provide a regulatory and management goal for the quality of sediments throughout the state.

(4) The sediment criteria of WAC 173-204-320 through 173-204-340 shall constitute surface sediment quality standards and be used to establish an inventory of surface sediment sampling stations where the sediments samples taken from these stations are determined to pass or fail the applicable sediment quality standards.

(5) Part IV, Sediment source control standards of this chapter shall be used as a basis for controlling the effects of point and nonpoint source discharges to sediments through the National Pollutant Discharge Elimination System (NPDES) federal permit program, state water quality management permit programs, issuance of administrative orders or other means determined appropriate by the department. The source control standards establish discharge sediment monitoring requirements and criteria for establishment and maintenance of sediment impact zones.

(6) Part V, Sediment cleanup standards of this chapter establishes administrative procedural requirements and criteria to identify, screen, rank and prioritize, and cleanup contaminated surface sediment sites. The sediment cleanup standards of WAC 173-204-500 through 173-204-590 shall be used pursuant to authorities established under chapters 90.48 and 70.105D RCW.

(7) This chapter establishes and defines a goal of minor adverse effects as the maximum level of sediment contamination allowed in sediment impact zones under the provisions of Part IV, Sediment source control standards and as the minimum degree of cleanup to be achieved in all cleanup actions under Part V, Sediment cleanup standards.

(8) Local ordinances establishing requirements for the designation and management of marine, low salinity and freshwater sediments shall not be less stringent than this chapter.

Note: All codes, standards, statutes, rules or regulations cited in this chapter are available for inspection at the Department of Ecology, Mailstop PV-11, Olympia, Washington 98504-8711.

[Statutory Authority: Chapters 43.21C, 70.105D, 90.48, 90.52, 90.54 and 90.70 RCW. 91-08-019 (Order 90-41), § 173-204-100, filed 3/27/91, effective 4/27/91.]

WAC 173-204-110 Applicability. (1) The sediment quality standards of WAC 173-204-300 through 173-204-315, and 173-204-350, and the sediment cleanup standards of WAC 173-204-500 through 173-204-580 shall apply to all surface sediments.

(2) The sediment quality standards of WAC 173-204-320, 173-204-330, and 173-204-340 shall apply to marine, low salinity and freshwater surface sediments, respectively.

(3) The source control standards of WAC 173-204-400 through 173-204-420 shall apply to each person's actions which exposes or resuspends surface sediments which exceed, or otherwise cause or potentially cause surface sediments to exceed, the applicable standards of WAC 173-204-320 through 173-204-340.

(4) The sediment recovery zone standards of WAC 173-204-590 shall apply to each person's cleanup action decision made pursuant to WAC 173-204-580 where the selected cleanup action leaves in place marine, low salinity, or freshwater sediments that exceed the applicable sediment quality standards of WAC 173-204-320 through 173-204-340.

(5) The sediment quality standards of WAC 173-204-320 through 173-204-340 shall not apply:

(a) Within a sediment impact zone as authorized by the department under WAC 173-204-415; or

(b) Within a sediment recovery zone as authorized by the department under WAC 173-204-590; or

(c) To particulates suspended in the water column; or

(d) To particulates suspended in a permitted effluent discharge.

(6) Nothing in this chapter shall constrain the department's authority to make appropriate sediment management decisions on a case-specific basis using best professional judgment and latest scientific knowledge for cases where the standards of this chapter are reserved or standards are not available.

[Statutory Authority: Chapters 43.21C, 70.105D, 90.48, 90.52, 90.54 and 90.70 RCW. 91-08-019 (Order 90-41), § 173-204-110, filed 3/27/91, effective 4/27/91.]

WAC 173-204-120 Antidegradation and designated use policies. (1) Antidegradation policy. The antidegradation policy of the state of Washington as generally guided by chapters 90.48 and 90.54 RCW, is applicable to any person's new or increased activity and shall apply to this chapter as follows:

(a) Existing beneficial uses shall be maintained and protected and no further degradation which would interfere with or become injurious to existing beneficial uses shall be allowed.

(b) No degradation of existing sediment quality shall be allowed of waters constituting an outstanding national resource, such as waters of national and state parks and scenic and recreation areas, wildlife refuges,

and waters of exceptional recreational or ecological significance.

(c) Whenever surface sediments are of a higher quality (i.e., lower chemical concentrations or adverse biological response) than the criteria assigned to said sediments, the existing surface sediment quality shall be protected and waste and other materials and substances shall not be allowed to contaminate such sediments or reduce the existing sediment quality thereof, except in those instances where:

(i) It is clear, after satisfactory public participation and intergovernmental coordination, that overriding considerations of the public interest will be served;

(ii) All wastes and other materials and substances proposed for discharge that may contaminate such sediments are provided with all known, available and reasonable methods of prevention, control, and treatment and/or best management practices;

(iii) The reduction of existing surface sediment quality is authorized by the department; and

(iv) Existing beneficial uses are maintained and protected, and no degradation which would interfere with and/or become injurious to existing sediment beneficial uses and/or causes long-term, irreparable harm to the environment is allowed.

(2) Designated use policy. The policy of the department and the purpose of this chapter shall be to manage waste discharges and sediment quality so as to protect existing beneficial uses and move towards attainment of designated beneficial uses as specified in section 101 (a)(2) of the federal Clean Water Act (33 USC 1251, et seq.) and chapter 173-201 WAC, the Water quality standards for surface waters of the state of Washington. This policy is applicable to any person's existing or proposed actions which may affect surface sediment quality.

[Statutory Authority: Chapters 43.21C, 70.105D, 90.48, 90.52, 90.54 and 90.70 RCW. 91-08-019 (Order 90-41), § 173-204-120, filed 3/27/91, effective 4/27/91.]

WAC 173-204-130 Administrative policies. The department shall implement this chapter in accordance with the following policies:

(1) The department shall seek to implement, and as necessary modify this chapter to protect biological resources and human health consistent with WAC 173-204-100(2). To implement the intent of this subsection, the department shall use methods that accurately reflect the latest scientific knowledge consistent with the definitions contained in WAC 173-204-200 (14) and (15), as applicable.

(2) At the interface between surface sediments, ground water or surface water, the applicable standards shall depend on which beneficial use is or could be adversely affected, as determined by the department. If beneficial uses of more than one resource are affected, the most restrictive standards shall apply.

(3) It shall be the goal of the department to modify this chapter so that methods such as confirmatory biological tests, sediment impact zone models, use of contaminated sediment site ranking models, etc., continue to

accurately reflect the latest scientific knowledge as established through ongoing validation and refinement.

(4) Any person or the department may propose an alternate technical method to replace or enhance the application of a specific technical method required under this chapter. Using best professional judgment, the department shall provide advance review and approval of any alternate technical method proposed prior to its application. Application and use of alternate technical methods shall be allowed when the department determines that the technical merit of the resulting decisions will improve the department's ability to implement and meet the intent of this chapter as described in WAC 173-204-100(2), and will remain consistent with the scientific intent of definitions contained in WAC 173-204-200 (14) and (15). The department shall maintain a record of the department's decisions concerning application for use of alternate technical methods pursuant to this subsection. The record shall be made available to the public on request.

(5) Intergovernmental coordination. The department shall ensure appropriate coordination and consultation with federally recognized Indian tribes and local, state, and federal agencies to provide information on and to implement this chapter.

(6) The department shall conduct an annual review of this chapter, and modify its provisions every three years, or as necessary. Revision to this chapter shall be made pursuant to the procedures established within chapter 34.05 RCW, the Administrative Procedure Act.

(7) Review of scientific information. When evaluating this chapter for necessary revisions, the factors the department shall consider include:

(a) New or additional scientific information which is available relating surface sediment chemical quality to acute or chronic adverse effects on biological resources as defined in WAC 173-204-200 (1) and (7);

(b) New or additional scientific information which is available relating human health risk to marine, low salinity, or freshwater surface sediment chemical contaminant levels;

(c) New or additional scientific information which is available relating levels of other toxic, radioactive, biological and deleterious substances in marine, low salinity, or freshwater sediments to acute or chronic adverse effects on biological resources, or to a significant health risk to humans;

(d) New state or federal laws which have established environmental or human health protection standards applicable to surface sediment; or

(e) Scientific information which has been identified for addition, modification or deletion by a scientific review process established by the department.

(8) Public involvement and education. The goal of the department shall be to provide timely information and meaningful opportunities for participation by the public in the annual review conducted by the department under subsection (7) of this section, and any modification of this chapter. To meet the intent of this subsection the department shall:

(a) Provide public notice of the department's decision regarding the results of its annual review of this chapter, including:

(i) The department's findings for the annual review factors identified in subsection (7) of this section;

(ii) The department's decision regarding the need for modification of this chapter based on its annual review; and

(iii) Identification of a time period for public opportunity to comment on the department's findings and decisions pursuant to this subsection.

(b) Provide public notice by mail or by additional procedures determined necessary by the department which may include:

(i) Newspaper publication;

(ii) Other news media;

(iii) Press releases;

(iv) Fact sheets;

(v) Publications;

(vi) Any other method as determined by the department.

(c) Conduct public meetings as determined necessary by the department to educate and inform the public regarding the department's annual review determinations and decisions.

(d) Comply with the rule making and public participation requirements of chapter 34.05 RCW, the Administrative Procedure Act, for any revisions to this chapter.

(9) Test sediments evaluated for compliance with the sediment quality standards of WAC 173-204-320 through 173-204-340 and/or the sediment impact zone maximum criteria of WAC 173-204-420 and/or the cleanup screening levels criteria of WAC 173-204-520 shall be sampled and analyzed using the Puget Sound Protocols or other methods approved by the department. Determinations made pursuant to this chapter shall be based on sediment chemical and/or biological data that were developed using an appropriate quality assurance/quality control program, as determined by the department.

(10) The statutory authority for decisions under this chapter shall be clearly stated in the decision documents prepared pursuant to this chapter. The department shall undertake enforcement actions consistent with the stated authority under which the action is taken. The process for judicial review of these decisions shall be pursuant to the statutes under which the action is being taken.

(11) When the department identifies this chapter as an applicable, or relevant and appropriate requirement for a federal cleanup action under the Comprehensive Environmental Response, Compensation and Liability Act, the department shall identify the entire contents of this chapter as the appropriate state requirement.

[Statutory Authority: Chapters 43.21C, 70.105D, 90.48, 90.52, 90.54 and 90.70 RCW. 91-08-019 (Order 90-41), § 173-204-130, filed 3/27/91, effective 4/27/91.]

WAC 173-204-200 Definitions. For the purpose of this chapter, the following definitions shall apply:

(1) "Acute" means measurements of biological effects using surface sediment bioassays conducted for time periods that are relatively short in comparison to the life cycle of the test organism. Acute effects may include mortality, larval abnormality, or other endpoints determined appropriate by the department.

(2) "Amphipod" means crustacean of the Class Amphipoda, e.g., *Rhepoxynius abronius*.

(3) "Appropriate biological tests" means only tests designed to measure directly, or through established predictive capability, biologically significant adverse effects to the established or potential benthic or aquatic resources at a given location, as determined by rule by the department.

(4) "Beneficial uses" means uses of waters of the state which include but are not limited to use for domestic, stock watering, industrial, commercial, agricultural, irrigation, mining, fish and wildlife maintenance and enhancement, recreation, generation of electric power, and preservation of environmental and aesthetic values, and all other uses compatible with the enjoyment of the public waters of the state.

(5) "Best management practices" or "BMPs" means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of surface sediments of the state. BMPs also include treatment requirements, operating procedures and practices to control plant site runoff, spillage or leaks, sludge or water disposal, or drainage from raw material storage.

(6) "Bioassay" means a test procedure that measures the response of living plants, animals, or tissues to a sediment sample.

(7) "Chronic" means measurements of biological effects using sediment bioassays conducted for, or simulating, prolonged exposure periods of not less than one complete life cycle, evaluations of indigenous field organisms for long-term effects, assessment of biological effects resulting from bioaccumulation and biomagnification, and/or extrapolated values or methods for simulating effects from prolonged exposure periods. Chronic effects may include mortality, reduced growth, impaired reproduction, histopathological abnormalities, adverse effects to birds and mammals, or other endpoints determined appropriate by the department.

(8) "Contaminated sediment" means surface sediments designated under the procedures of WAC 173-204-310 as exceeding the applicable sediment quality standards of WAC 173-204-320 through 173-204-340.

(9) "Control sediment sample" means a surface sediment sample which is relatively free of contamination and is physically and chemically characteristic of the area from which bioassay test animals are collected. Control sediment sample bioassays provide information concerning a test animal's tolerance for stress due to transportation, laboratory handling, and bioassay procedures. Control sediment samples cannot exceed the applicable sediment quality standards of WAC 173-204-320 through 173-204-340.

(10) "Department" means the department of ecology.

(11) "Freshwater sediments" means surface sediments in which the sediment pore water contains less than or equal to 0.5 parts per thousand salinity.

(12) "Low salinity sediments" means surface sediments in which the sediment pore water contains greater than 0.5 parts per thousand salinity and less than 25 parts per thousand salinity.

(13) "Marine sediments" means surface sediments in which the sediment pore water contains 25 parts per thousand salinity or greater.

(14) "Minor adverse effects" means a level of effects that:

(a) Has been determined by rule by the department, except in cases subject to WAC 173-204-110(6); and

(b) Meets the following criteria:

(i) An acute or chronic adverse effect to biological resources as measured by a statistically and biologically significant response relative to reference in no more than one appropriate biological test as defined in WAC 173-204-200(3); or

(ii) A statistically and biologically significant response that is significantly elevated relative to reference in any appropriate biological test as defined in WAC 173-204-200(3); or

(iii) Biological effects per (b)(i) or (ii) of this subsection as predicted by exceedance of an appropriate chemical or other deleterious substance standard, except where the prediction is overridden by direct biological testing evidence pursuant to (b)(i) and (ii) of this subsection; and

(c) Does not result in significant human health risk as predicted by exceedance of an appropriate chemical, biological, or other deleterious substance standard.

(15) "No adverse effects" means a level of effects that:

(a) Has been determined by rule by the department, except in cases subject to WAC 173-204-110(6); and

(b) Meets the following biological criteria:

(i) No acute or chronic adverse effects to biological resources as measured by a statistically and biologically significant response relative to reference in any appropriate biological test as defined in WAC 173-204-200(3); and

(ii) No acute or chronic adverse biological effect per (b)(i) of this subsection as predicted by exceedance of an appropriate chemical or other deleterious substance standard, except where the prediction is overridden by direct biological testing evidence pursuant to (b)(i) of this subsection; and

(iii) Does not result in significant human health risk as predicted by exceedance of an appropriate chemical, biological, or other deleterious substance standard.

(16) "Other toxic, radioactive, biological, or deleterious substances" means contaminants which are not specifically identified in the sediment quality standards chemical criteria of WAC 173-204-320 through 173-204-340 (e.g., organic debris, tributyltin, DDT, etc.).

(17) "Person" means an individual, firm, corporation, association, partnership, consortium, joint venture, commercial entity, industry, private corporation, port district, special purpose district, irrigation district, unit of

local government, state government agency, federal government agency, Indian tribe, or any other entity whatsoever.

(18) "Practicable" means able to be completed in consideration of environmental effects, technical feasibility and cost.

(19) "Puget Sound basin" or "Puget Sound" means:

(a) Puget Sound south of Admiralty Inlet, including Hood Canal and Saratoga Passage;

(b) The waters north to the Canadian border, including portions of the Strait of Georgia;

(c) The Strait of Juan de Fuca south of the Canadian border; and

(d) All the lands draining into these waters as mapped in water resources inventory areas numbers 1 through 19, set forth in Water resources management program established pursuant to the Water Resources Act of 1971, chapter 173-500 WAC.

(20) "Puget Sound protocols" means *Puget Sound Estuary Program. 1986. Updated in 1989. Recommended Protocols for Measuring Selected Environmental Variables in Puget Sound, U.S. Environmental Protection Agency, Region 10, Seattle, WA (looseleaf)*, as amended.

(21) "Reference sediment sample" means a surface sediment sample which serves as a laboratory indicator of a test animal's tolerance to important natural physical and chemical characteristics of the sediment, e.g., grain size, organic content. Reference sediment samples represent the nonanthropogenically affected background surface sediment quality of the sediment sample. Reference sediment samples cannot exceed the applicable sediment quality standards of WAC 173-204-320 through 173-204-340.

(22) "Sediment impact zone" means an area where the applicable sediment quality standards of WAC 173-204-320 through 173-204-340 are exceeded due to ongoing permitted or otherwise authorized wastewater, storm water, or nonpoint source discharges and authorized by the department within a federal or state wastewater or storm water discharge permit, or other formal department authorization.

(23) "Sediment recovery zone" means an area where the applicable sediment quality standards of WAC 173-204-320 through 173-204-340 are exceeded as a result of historical discharge activities, and authorized by the department as a result of a cleanup decision made pursuant to WAC 173-204-580, Cleanup action decision.

(24) "Site units" means discrete subdivisions of an individual contaminated sediment site that are being evaluated for the purpose of establishing cleanup standards. Site units are based on consideration of unique locational, environmental, spatial, or other conditions determined appropriate by the department, e.g., cleanup under piers, cleanup in eelgrass beds, cleanup in navigational lanes.

(25) "Surface sediments" or "sediment(s)" means settled particulate matter located in the predominant biologically active aquatic zone, or exposed to the water column. Sediment(s) also includes settled particulate

matter exposed by human activity (e.g., dredging) to the biologically active aquatic zone or to the water column.

(26) "Test sediment" means a sediment sample that is evaluated for compliance with the sediment quality standards of WAC 173-204-320 through 173-204-340 and/or the sediment impact zone maximum criteria of WAC 173-240-420 and/or the cleanup screening levels criteria of WAC 173-204-520.

[Statutory Authority: Chapters 43.21C, 70.105D, 90.48, 90.52, 90.54 and 90.70 RCW. 91-08-019 (Order 90-41), § 173-204-200, filed 3/27/91, effective 4/27/91.]

WAC 173-204-300 Purpose. The sediment quality standards of WAC 173-204-320 through 173-204-340 include chemical concentration criteria, biological effects criteria, human health criteria, other toxic, radioactive, biological, or deleterious substances criteria, and nonanthropogenically affected sediment quality criteria which are used to identify sediments that have no adverse effects on biological resources, and correspond to no significant health risk to humans. Designation determinations using the sediment quality standards of WAC 173-204-320 through 173-204-340 shall be conducted as stipulated in WAC 173-204-310, Sediment quality standards designation procedures.

[Statutory Authority: Chapters 43.21C, 70.105D, 90.48, 90.52, 90.54 and 90.70 RCW. 91-08-019 (Order 90-41), § 173-204-300, filed 3/27/91, effective 4/27/91.]

WAC 173-204-310 Sediment quality standards designation procedures. Any person may use these procedures to determine a sediment's designation using the applicable sediment quality standards of WAC 173-204-320 through 173-204-340. Any person who designates test sediments using the procedures of this section shall meet the sampling and testing plan requirements of WAC 173-204-600 and records management requirements of WAC 173-204-610. Test sediments designated using the procedures of this section shall be sampled and analyzed using the Puget Sound protocols or other methods approved by the department, and shall use an appropriate quality assurance/quality control program, as determined by the department. A sediment sample that passes the initial designation procedures is designated as complying with the applicable sediment quality standards of WAC 173-204-320 through 173-204-340, until such time as any person or the department confirms the sediment designation as failing the applicable sediment quality standards of WAC 173-204-320 through 173-204-340. A sediment sample that fails the initial designation procedures is designated as not complying with the applicable sediment quality standards of WAC 173-204-320 through 173-204-340, until such time as any person or the department confirms the sediment designation as passing the applicable sediment quality standards of WAC 173-204-320 through 173-204-340. A sediment sample that passes or fails the confirmatory designation procedures is designated as such under the procedures of WAC 173-204-310. Sediments shall be designated with the applicable sediment

quality standards of WAC 173-204-320 through 173-204-340 as follows:

(1) Initial designation. Sediments that have been chemically analyzed for the applicable chemical concentration criteria of WAC 173-204-320 through 173-204-340 shall be designated as follows:

(a) Sediments with chemical concentrations equal to or less than all the applicable chemical and human health criteria are designated as having no adverse effects on biological resources, and not posing a significant health threat to humans, and pass the applicable sediment quality standards of WAC 173-204-320 through 173-204-340.

(b) Sediments with chemical concentrations which exceed any one applicable chemical or human health criterion in WAC 173-204-320 through 173-204-340 are designated as having adverse effects on biological resources or posing significant human health threats, and fail the sediment quality standards of WAC 173-204-320 through 173-204-340, pending confirmatory designation.

(2) Confirmatory designation. Any person or the department may confirm the designation of sediments which have either passed or failed initial designation procedures listed in subsection (1) of this section using the applicable biological testing of WAC 173-204-315, as required below. Sediment samples that pass all the required confirmatory biological tests are designated as passing the applicable sediment quality standards of WAC 173-204-320 through 173-204-340, notwithstanding the sediment's previous initial designation under subsection (1) of this section. Any sediment sample which fails any one of the required confirmatory biological tests shall be designated as failing the applicable sediment quality standards of WAC 173-204-320 through 173-204-340, notwithstanding the sediment's previous initial designation under subsection (1) of this section. The confirmatory biological test standards are described below.

(a) To confirm the designation of a sediment which either passed or failed any applicable chemical concentration criterion established in WAC 173-204-320 through 173-204-340, the sediment shall be tested for:

(i) Two of the acute effects biological tests described in the applicable standards of WAC 173-204-315; and

(ii) One of the chronic effects biological tests described in the applicable standards of WAC 173-204-315.

(b) Sediments with chemical concentrations which either passed or failed any applicable human health criterion of WAC 173-204-320 through 173-204-340 shall be eligible for confirmatory designation as follows: Reserved: The department shall determine on a case-by-case basis the criteria, methods, and procedures necessary to meet the intent of this chapter.

(3) Initial and confirmatory designation of sediments which contain other toxic, radioactive, biological, or deleterious substances. Sediments which contain other toxic, radioactive, biological, or deleterious substances, as defined in WAC 173-204-200(16), shall be designated by the department using the following procedures.

- (a) The department shall:
- (i) Identify individual contaminants of concern;
 - (ii) Identify appropriate and practicable sampling and analysis methodologies;
 - (iii) Identify test interpretation standards for initial and confirmatory designation; and
 - (iv) Identify acceptable levels of sediment contamination for sediments which contain other toxic, radioactive, biological, or deleterious substances.
- (b) Where sediment containing other toxic, radioactive, biological or deleterious substances may also be contaminated by chemicals identified in WAC 173-204-320 through 173-204-340, the department shall require application of the appropriate tests and standards of WAC 173-204-320 through 173-204-340, as determined by the department, in addition to any requirements developed pursuant to (a) of this subsection.
- (c) The department may use all or some of the sediment biological tests of WAC 173-204-320 through 173-204-340 to designate sediments with other toxic, radioactive, biological or deleterious substances in cases where those tests are technically appropriate, as determined by the department.

[Statutory Authority: Chapters 43.21C, 70.105D, 90.48, 90.52, 90.54 and 90.70 RCW. 91-08-019 (Order 90-41), § 173-204-310, filed 3/27/91, effective 4/27/91.]

WAC 173-204-315 Confirmatory marine sediment biological tests. (1) The following five acute and chronic effects biological tests shall be used to confirm designation of Puget Sound marine sediments using the procedures described in WAC 173-204-310(2). Use of alternate biological tests shall be subject to the review and approval of the department using the procedures of WAC 173-204-130(4).

- (a) Acute effects tests.
- (i) Amphipod: Ten-day mortality sediment bioassay for the Amphipod, i.e., *Rhepoxynius abronius*.
 - (ii) Larval: Any one of the following mortality/abnormality sediment bioassays:
 - (A) *Crassostrea gigas*, i.e., Pacific oyster;
 - (B) *Mytilus edulis*, i.e., Blue mussel;
 - (C) *Strongylocentrotus purpuratus*, i.e., Purple sea urchin; or
 - (D) *Dendraster excentricus*, i.e., Sand dollar.
- (b) Chronic effects tests.
- (i) Benthic infaunal abundance: Abundance of the following major taxa: Crustacea, Polychaeta, and Mollusca.
 - (ii) Juvenile polychaete: Twenty-day biomass of the juvenile polychaete *Neanthes arenaceodentata*; or
 - (iii) Microtox saline extract: Decreased luminescence from the bacteria *Photobacterium phosphoreum* after a fifteen minute exposure.

(2) Performance standards for control and reference sediment biological test results. The biological tests of this section shall not be considered valid unless test results for the appropriate control and reference sediments meet the performance standards of (a) through (e) of this subsection. The department may reject the results of

a reference sediment biological test based on unacceptably high variability.

(a) Amphipod: The control sediment shall have less than ten percent mortality over the test period. The reference sediment shall have less than twenty-five percent mortality.

(b) Larval: The seawater control sample shall have less than fifty percent combined abnormality and mortality (i.e., a fifty percent normal survivorship at time-final).

(c) Benthic abundance: The reference benthic macroinvertebrate assemblage shall be representative of areas of Puget Sound removed from significant sources of contaminants, and to the extent possible shall have the following characteristics:

(i) The taxonomic richness of benthic macroinvertebrates and the abundances of higher taxonomic groups shall reflect seasonality and natural physical-chemical conditions (e.g., grain size composition and salinity of sediments, water depth) in a reference area, and not be obviously depressed as a result of chemical toxicity;

(ii) Normally abundant species that are known to be sensitive to chemical contaminants shall be present;

(iii) Normally rare species that are known to become abundant only under chemically disturbed conditions shall be rare or absent; and

(iv) The abundances of normally rare species that control community structure through physical modification of the sediment shall be similar to those observed at the test sediment site.

(d) Juvenile polychaete: The control sediment shall have less than ten percent mortality. The reference sediment shall have a mean biomass which is at least eighty percent of the mean biomass found in the control sediment.

(e) Microtox: Reserved: The department shall determine performance standards on a case-by-case basis as necessary to meet the intent of this chapter.

[Statutory Authority: Chapters 43.21C, 70.105D, 90.48, 90.52, 90.54 and 90.70 RCW. 91-08-019 (Order 90-41), § 173-204-315, filed 3/27/91, effective 4/27/91.]

WAC 173-204-320 Marine sediment quality standards. (1) Goal and applicability.

(a) The sediment quality standards of this section shall correspond to a sediment quality that will result in no adverse effects, including no acute or chronic adverse effects on biological resources and no significant health risk to humans.

(b) The marine sediment quality standards of this section shall apply to marine sediments located within Puget Sound as defined in WAC 173-204-200(19).

(c) Non-Puget Sound marine sediment quality standards. Reserved: The department shall determine on a case-by-case basis the criteria, methods, and procedures necessary to meet the intent of this chapter.

(2) Chemical concentration criteria. The chemical concentrations in Table I establish the marine sediment quality standards chemical criteria for designation of sediments.

Table I
Marine Sediment Quality Standards
—Chemical Criteria¹

CHEMICAL PARAMETER	MG/KG DRY WEIGHT (PARTS PER MILLION (PPM) DRY)
ARSENIC	57
CADMIUM	5.1
CHROMIUM	260
COPPER	390
LEAD	450
MERCURY	0.41
SILVER	6.1
ZINC	410
CHEMICAL PARAMETER	MG/KG ORGANIC CARBON (PPM CARBON) ²
LPAH ³	370
NAPHTHALENE	99
ACENAPHTHYLENE	66
ACENAPHTHENE	16
FLUORENE	23
PHENANTHRENE	100
ANTHRACENE	220
2-METHYLNAPHTHALENE	38
CHEMICAL PARAMETER	MG/KG ORGANIC CARBON (PPM CARBON)
HPAH ⁴	960
FLUORANTHENE	160
PYRENE	1000
BENZ(A)ANTHRACENE	110
CHRYSENE	110
TOTAL BENZOFLUORANTHENES ⁵	230
BENZO(A)PYRENE	99
INDENO (1,2,3,-C,D) PYRENE	34
DIBENZO (A,H) ANTHRACENE	12
BENZO(G,H,I)PERYLENE	31
1,2-DICHLOROBENZENE	2.3
1,4-DICHLOROBENZENE	3.1
1,2,4-TRICHLOROBENZENE	0.81
HEXACHLOROBENZENE	0.38
DIMETHYL PHTHALATE	53
DIETHYL PHTHALATE	61
DI-N-BUTYL PHTHALATE	220
BUTYL BENZYL PHTHALATE	4.9
BIS (2-ETHYLHEXYL) PHTHALATE	47
DI-N-OCTYL PHTHALATE	58
DIBENZOFURAN	15
HEXACHLOROBUTADIENE	3.9
N-NITROSODIPHENYLAMINE	11
TOTAL PCB'S	12
CHEMICAL PARAMETER	UG/KG DRY WEIGHT (PARTS PER BILLION (PPB) DRY)
PHENOL	420
2-METHYLPHENOL	63
4-METHYLPHENOL	670
2,4-DIMETHYL PHENOL	29
PENTACHLOROPHENOL	360
BENZYL ALCOHOL	57
BENZOIC ACID	650

Table I Footnotes

- Where laboratory analysis indicates a chemical is not detected in a sediment sample, the detection limit shall be reported and shall be at or below the criteria value shown in this table. Where chemical criteria in this table represent the sum of individual compounds or isomers, and a chemical analysis identifies an undetected value for one or more individual compounds or isomers, the detection limit shall be used for calculating the sum of the respective compounds or isomers.
- The listed chemical parameter criteria represent concentrations in parts per million, "normalized," or expressed, on a total organic carbon basis. To normalize to total organic carbon, the dry weight concentration for each parameter is divided by the decimal fraction representing the percent total organic carbon content of the sediment.
- The LPAH criterion represents the sum of the following "low molecular weight polynuclear aromatic hydrocarbon" compounds:

Naphthalene, Acenaphthylene, Acenaphthene, Fluorene, Phenanthrene, and Anthracene. The LPAH criterion is not the sum of the criteria values for the individual LPAH compounds as listed.

- The HPAH criterion represents the sum of the following "high molecular weight polynuclear aromatic hydrocarbon" compounds: Fluoranthene, Pyrene, Benz(a)anthracene, Chrysene, Total Benzofluoranthenes, Benzo(a)pyrene, Indeno(1,2,3,-c,d)pyrene, Dibenzo(a,h)anthracene, and Benzo(g,h,i)perylene. The HPAH criterion is not the sum of the criteria values for the individual HPAH compounds as listed.
- The TOTAL BENZOFLUORANTHENES criterion represents the sum of the concentrations of the "B," "J," and "K" isomers.

(3) Biological effects criteria. For designation of sediments pursuant to WAC 173-204-310(2), sediments are determined to have adverse effects on biological resources when any one of the confirmatory marine sediment biological tests of WAC 173-204-315(1) demonstrate the following results:

(a) Amphipod: The test sediment has a higher (statistically significant, t test, $p \leq 0.05$) mean mortality than the reference sediment and the test sediment mean mortality exceeds twenty-five percent, on an absolute basis.

(b) Larval: The test sediment has a mean survivorship of normal larvae that is less (statistically significant, t test, $p \leq 0.05$) than the mean normal survivorship in the reference sediment and the test sediment mean normal survivorship is less than eighty-five percent of the mean normal survivorship in the reference sediment (i.e., the test sediment has a mean combined abnormality and mortality that is greater than fifteen percent relative to time-final in the reference sediment).

(c) Benthic abundance: The test sediment has less than fifty percent of the reference sediment mean abundance of any one of the following major taxa: Crustacea, Mollusca or Polychaeta, and the test sediment abundance is statistically different (t test, $p \leq 0.05$) from the reference sediment abundance.

(d) Juvenile polychaete: The test sediment has a mean biomass of less than seventy percent of the reference sediment mean biomass and the test sediment biomass is statistically different (t test, $p \leq 0.05$) from the reference sediment biomass.

(e) Microtox: The mean light output of the highest concentration of the test sediment is less than eighty percent of the mean light output of the reference sediment, and the two means are statistically different from each other (t test, $p \leq 0.05$).

(4) Marine sediment human health criteria. Reserved: The department may determine on a case-by-case basis the criteria, methods, and procedures necessary to meet the intent of this chapter.

(5) Marine sediment other toxic, radioactive, biological, or deleterious substances criteria. Other toxic, radioactive, biological or deleterious substances in, or on, sediments shall be at or below levels which cause no adverse effects in marine biological resources, and below levels which correspond to a significant health risk to humans, as determined by the department. The department shall determine on a case-by-case basis the criteria, methods, and procedures necessary to meet the intent of this chapter pursuant to WAC 173-204-310(3).

(6) Nonanthropogenically affected sediment quality criteria. Whenever the nonanthropogenically affected sediment quality is of a lower quality (i.e., higher chemical concentrations, higher levels of adverse biological response, or posing a greater health threat to humans) than the applicable sediment quality standards assigned for said sediments by this chapter, the existing sediment chemical and biological quality shall be identified on an area-wide basis as determined by the department, and used in place of the sediment quality standards of WAC 173-204-320.

[Statutory Authority: Chapters 43.21C, 70.105D, 90.48, 90.52, 90.54 and 90.70 RCW. 91-08-019 (Order 90-41), § 173-204-320, filed 3/27/91, effective 4/27/91.]

WAC 173-204-330 Low salinity sediment quality standards. Reserved: The department shall determine on a case-by-case basis the criteria, methods, and procedures necessary to meet the intent of this chapter.

[Statutory Authority: Chapters 43.21C, 70.105D, 90.48, 90.52, 90.54 and 90.70 RCW. 91-08-019 (Order 90-41), § 173-204-330, filed 3/27/91, effective 4/27/91.]

WAC 173-204-340 Freshwater sediment quality standards. Reserved: The department shall determine on a case-by-case basis the criteria, methods, and procedures necessary to meet the intent of this chapter.

[Statutory Authority: Chapters 43.21C, 70.105D, 90.48, 90.52, 90.54 and 90.70 RCW. 91-08-019 (Order 90-41), § 173-204-340, filed 3/27/91, effective 4/27/91.]

WAC 173-204-350 Sediment quality standards inventory. (1) The department shall gather available data on sediments and produce an inventory of sediment sampling stations which pass or fail the applicable sediment quality standards of WAC 173-204-320 through 173-204-340. Sediment sampling stations which are evaluated for compliance with the sediment quality standards of WAC 173-204-320 through 173-204-340 and placed on the inventory shall be sampled and analyzed using the Puget Sound Protocols or other methods approved by the department, and shall use an appropriate quality assurance/quality control program, as determined by the department. The sediment quality standards inventory produced per this section shall be used by the department, and made available upon request to the public and other federal, state, and local agencies for the following uses:

(a) To identify and target necessary source control activities, such as discharger monitoring, to eliminate adverse effects on biological resources and significant health threats to humans from sediment contamination;

(b) To identify contaminated sediment cleanup sites per the procedures in WAC 173-204-500 through 173-204-590;

(c) To establish sediment quality ambient monitoring program status and trends analyses and reports;

(d) To identify the sediment quality of areas proposed for dredging, in-water construction, and other actions requiring federal, state, and/or local permits; and

(e) To complete other uses consistent with the intent of this chapter, as determined by the department.

(2) Sources of data. Sediment biological and chemical data shall be gathered by the department for review to produce and update the sediment quality inventory on a biennial basis. Data sources include, but are not limited to:

(a) Sediment data collected by the department for the Puget Sound ambient monitoring program, compliance monitoring of permitted discharges, and special environmental investigations.

(b) Sediment data submitted to the U.S. Army Corps of Engineers in support of dredging permit applications.

(c) Sediment data collected to identify problem areas and needed source controls in Puget Sound as defined in WAC 173-204-200(19), other marine waters, and all low salinity and freshwater areas in Washington state.

(d) Sediment data used or collected in compliance with chapter 70.105D RCW, and the Model Toxics Control Act cleanup regulation, chapter 173-340 WAC.

(e) Sediment data used or collected in compliance with the federal Comprehensive Environmental Response, Compensation and Liability Act.

(f) Sediment data collected as a requirement of a National Pollutant Discharge Elimination System or state discharge permit.

(g) Sediment data derived from other studies including:

(i) Federally sponsored monitoring studies.

(ii) Special monitoring studies conducted by local and municipal governments, or private industry.

(iii) Data derived through Washington state department of natural resources administration of use authorizations.

(3) The inventory shall be updated and made available to the public on a biennial basis.

[Statutory Authority: Chapters 43.21C, 70.105D, 90.48, 90.52, 90.54 and 90.70 RCW. 91-08-019 (Order 90-41), § 173-204-350, filed 3/27/91, effective 4/27/91.]

WAC 173-204-400 General considerations. (1) The standards of WAC 173-204-400 through 173-204-420 specify a process for managing sources of sediment contamination. These procedures include:

(a) Evaluating the potential for a waste discharge to create a sediment impact;

(b) Requiring application for a sediment impact zone authorization;

(c) Verifying whether a discharge has received all known, available and reasonable methods of prevention, control, and treatment prior to discharge, and/or application of best management practices;

(d) Analysis and verification of the potential sediment impact;

(e) Determining whether the sediment impact zone would meet maximum allowable contamination requirements;

(f) Evaluating the proposed sediment impact zone in consideration of locational criteria;

(g) Design and/or constrain the sediment impact zone to be as small, and with the least contamination, as practicable;

(h) Public review of the proposed sediment impact zone authorization;

(i) Issuance of the sediment impact zone authorization with provisions for maintenance and closure; and

(j) Reducing and eventually eliminating the sediment impact zone via renewals and modifications of a sediment impact zone authorization.

(2) Permits and other authorizations of wastewater, storm water, and nonpoint source discharges to surface waters of the state of Washington under authority of chapter 90.48 RCW shall be conditioned so that the discharge receives all known, available and reasonable methods of prevention, control, and treatment, and best management practices prior to discharge, as required by chapters 90.48, 90.52, and 90.54 RCW. The department shall provide consistent guidance on the collection, analysis and evaluation of wastewater, receiving-water, and sediment samples to meet the intent of this section using consideration of pertinent sections of the *Department of Ecology Permit Writers' Manual*, as amended, and other guidance approved by the department.

(3) As determined necessary, the department shall require any person who proposes a new discharge to evaluate the potential for the proposed discharge to cause a violation of the applicable sediment quality standards of WAC 173-204-320 through 173-204-340.

(4) As determined necessary, the department shall require existing permitted discharges to evaluate the potential for the permitted discharge to cause a violation of the applicable sediment quality standards of WAC 173-204-320 through 173-204-340.

(5) Within permits authorizing existing discharges to surface waters of the state of Washington, the department may specify appropriate locations and methodologies for the collection and analysis of representative samples of wastewater, receiving-water, and sediments to evaluate the potential for the discharge to cause a violation of the applicable sediment quality standards of WAC 173-204-320 through 173-204-340.

(6) In establishing the need for, and the appropriate, individual permit monitoring conditions, the department shall consider multiple factors relating to the potential for a discharge to cause a violation of the applicable sediment quality standards of WAC 173-204-320 through 173-204-340 including but not limited to:

(a) Discharge particulate characteristics;

(b) Discharge contaminant concentrations, flow, and loading rate;

(c) Sediment chemical concentration and biological effects levels;

(d) Receiving water characteristics;

(e) The geomorphology of sediments;

(f) Cost mitigating factors such as the available resources of the discharger; and

(g) Other factors determined necessary by the department.

(7) As determined necessary to ensure the wastewater discharge does not cause a violation of the applicable standards of WAC 173-204-320 through 173-204-340, except as authorized by the department under WAC 173-204-415, Sediment impact zones, the department

shall stipulate permit terms and conditions which include wastewater discharge average and maximum mass loading per unit time, and wastewater discharge average and maximum chemical concentrations within new and existing facility permits authorizing wastewater discharges to surface waters of the state of Washington.

(8) As determined necessary, the department shall modify wastewater discharge permits whenever it appears the discharge causes a violation, or creates a substantial potential to cause a violation of the applicable sediment quality standards of WAC 173-204-320 through 173-204-340, as authorized by RCW 90.48.520.

(9) To meet the intent of this section, the sediment quality standards of WAC 173-204-320 through 173-204-340 and the sediment impact zone standards of WAC 173-204-415 through 173-204-420 are not considered to be federal discharge permit effluent limits subject to antibacksliding requirements of the federal Clean Water Act. Discharge permit sediment monitoring and sediment impact zone compliance requirements may be used to establish effluent limits sufficient to meet the standards of this chapter.

(10) As determined necessary, the department shall use issuance of administrative actions under authority of chapters 90.48 or 70.105D RCW to implement this chapter.

(11) Wastewater dilution zones. Water quality mixing zones authorized by the department pursuant to chapter 173-201 WAC, Water quality standards for surface waters of the state of Washington, do not satisfy the standards of WAC 173-204-415, Sediment impact zones.

(12) For the sediment source control standards of WAC 173-204-400 through 173-204-420, any and all references to violation of, potential to violate, exceedance of, or potential to exceed the applicable standards of WAC 173-204-320 through 173-204-340 shall also apply to the antidegradation and designated use policies of WAC 173-204-120. Any exceedances or potential exceedances of the antidegradation or designated use policies of WAC 173-204-120 shall meet the applicable requirements of WAC 173-204-400 through 173-204-420.

(13) Under no circumstances shall the provisions of sediment source control standards WAC 173-204-400 through 173-204-420 be construed as providing for the relaxation of discharge permit requirements under other authorities including, but not limited to, chapter 90.48 RCW, the Water Pollution Control Act, chapter 90.54 RCW, the Water Resources Act of 1971, and the Federal Water Pollution Control Act of 1972 and amendments.

[Statutory Authority: Chapters 43.21C, 70.105D, 90.48, 90.52, 90.54 and 90.70 RCW. 91-08-019 (Order 90-41), § 173-204-400, filed 3/27/91, effective 4/27/91.]

WAC 173-204-410 Sediment quality goal and sediment impact zone applicability. (1) Goal and policies.

(a) It is the established goal of the department to manage source control activities to reduce and ultimately eliminate adverse effects on biological resources

and significant health threats to humans from sediment contamination.

(b) The stated policy of the department shall be to only authorize sediment impact zones so as to minimize the number, size, and adverse effects of all zones, with the intent to eliminate the existence of all such zones whenever practicable. The department shall consider the relationship between environmental effects, technical feasibility and cost in determining whether it is practicable to minimize and/or eliminate sediment impact zones.

(c) The department shall implement the standards of WAC 173-204-400 through 173-204-420 so as to prevent the creation of new contaminated sediment cleanup sites identified under WAC 173-204-530(4).

(2) A sediment impact zone authorization issued by the department under the authority of chapter 90.48 RCW does not constitute authorization to trespass on lands not owned by the applicant. These standards do not address and in no way alter the legal rights, responsibilities, or liabilities of the permittee or landowner of the sediment impact zone for any applicable requirements of proprietary, real estate, tort, and/or other laws not directly expressed as a requirement of this chapter.

(3) Except as identified in subsection (6)(d) of this section, any person may apply for a sediment impact zone under the following conditions:

(a) The person's discharge is provided with all known, available and reasonable methods of prevention, control, and treatment, and meets best management practices as stipulated by the department; and

(b) The person's discharge activity exposes or resuspends sediments which exceed, or otherwise cause or potentially cause sediments to exceed the applicable sediment quality standards of WAC 173-204-320 through 173-204-340, or the antidegradation policy standards of WAC 173-204-120 (1)(a) and (c) within a period of ten years from the later date of either the department's formal approval of the application for a sediment impact zone authorization or the starting date of the discharge.

(4) The department shall only authorize sediment impact zones for permitted wastewater and storm water discharges, and other discharges authorized by the department. The department shall authorize all sediment impact zones via discharge permits or other formal administrative actions.

(5) The department shall not limit the application, establishment, maintenance, or closure of an authorized sediment impact zone via consideration of sediment contamination determined by the department to be the result of unknown, unpermitted or historic discharge sources.

(6) As determined necessary by the department, any person with a permitted discharge shall be required to meet the standards of WAC 173-204-400 through 173-204-420, as follows:

(a) Any person with a new or existing permitted wastewater discharge shall be required to meet the standards of WAC 173-204-400 through 173-204-420;

(b) Any person with a new or existing permitted industrial storm water discharge, regulated as process wastewater in National Pollutant Discharge Elimination System or state discharge permits, shall be required to meet the standards of WAC 173-204-400 through 173-204-420;

(c) Any person with a new or existing permitted storm water or nonpoint source discharge, which fully uses all known, available and reasonable methods of prevention, control, and treatment, and best management practices as stipulated by the department at the time of the person's application for a sediment impact zone, shall be required to meet the standards of WAC 173-204-400 through 173-204-420;

(d) Any person with a storm water discharge, existing prior to the adoption of this chapter, and determined by the department to not be fully using best management practices stipulated by the department at the time of the person's application for a permit from the department, shall be eligible for a sediment impact zone as follows:

(i) The department shall issue sediment impact zone authorizations with requirements for application of best management practices stipulated by the department on an approved time schedule. The sediment impact zone maximum criteria of WAC 173-204-420 shall not be applicable during the approved time schedule authorized by the department.

(ii) Sediment impact zones authorized by the department for permitted storm water discharges under the applicability provisions of subsection (6)(d) of this section shall be subject to cleanup action determinations made by the department pursuant to WAC 173-204-500 through 173-204-590 when the sediment impact zone maximum criteria of WAC 173-204-420 are exceeded within the authorized sediment impact zone.

(iii) The department shall identify and include best management practices required to meet the sediment impact zone design standards of WAC 173-204-415(4) as soon as practicable within sediment impact zone authorizations established for storm water discharges per WAC 173-204-410 (6)(d).

(7) Dredged material and fill discharge activities subject to authorization under Section 401 of the federal Clean Water Act via chapter 90.48 RCW and chapter 173-225 WAC, establishment of implementation procedures of application for certification, are not subject to the standards of WAC 173-204-415 but are subject to the standards of WAC 173-204-400 through 173-204-410 and 173-204-420 as follows:

(a) Requirements for dredging activities and disposal sites shall be established by the department using best available dredged material management guidelines and applicable federal and state rules. These guidelines shall include the Puget Sound dredged disposal analysis (PSDDA) dredged material testing and disposal requirements cited in:

(i) *Management Plan Report - Unconfined Open-Water Disposal Of Dredged Material, Phase I, (Central Puget Sound), June 1988, or as amended;*

(ii) *Management Plan Report - Unconfined Open-Water Disposal Of Dredged Material, Phase II, (North*

And South Puget Sound), September 1989, or as amended; and

(iii) *Users Manual For Dredged Material Management In Puget Sound, November 1990, or as amended.*

(b) In coordination with other applicable federal and state and local dredged material management programs, the department may issue administrative orders to establish approved disposal sites, to specify disposal site use conditions, and to specify disposal site monitoring requirements.

(c) The department may authorize sediment impact zones for dredged material disposal via federal Clean Water Act Section 401 certification actions.

(d) As determined necessary by the department, the department may authorize sediment impact zones for dredged material disposal via administrative orders issued under authority of chapter 90.48 RCW. The department shall authorize sediment impact zones for all Puget Sound dredged disposal analysis disposal sites via administrative orders issued under authority of chapter 90.48 RCW.

(e) Administrative orders and certifications establishing sediment impact zones for dredged material disposal sites shall describe establishment, maintenance, and closure requirements for the authorized site, consistent with the requirements described in (a) of this subsection.

(8) The source control standards of WAC 173-204-400 through 173-204-420 are applicable in cases where the sediment quality standards of WAC 173-204-320 through 173-204-340 are reserved.

[Statutory Authority: Chapters 43.21C, 70.105D, 90.48, 90.52, 90.54 and 90.70 RCW. 91-08-019 (Order 90-41), § 173-204-410, filed 3/27/91, effective 4/27/91.]

WAC 173-204-415 Sediment impact zones. The purpose of this section is to set forth the standards for establishment, maintenance, and closure of sediment impact zones to meet the intent of sediment quality dilution zones authorized pursuant to RCW 90.48.520, except for sediment impact zones authorized under WAC 173-204-410(7). The department shall authorize all sediment impact zones via discharge permits or other formal administrative actions.

(1) General requirements. Authorization, modification and renewal of a sediment impact zone by the department shall require compliance with the following general requirements:

(a) Permits authorizing wastewater discharges to surface waters of the state of Washington under authority of chapter 90.48 RCW shall be conditioned so that the discharge receives:

(i) All known, available and reasonable methods of prevention, control, and treatment prior to discharge, as required by chapters 90.48, 90.52, and 90.54 RCW; and

(ii) Best management practices as stipulated by the department.

(b) The maximum area, and maximum chemical contaminant concentration and/or allowable maximum biological effect level within sediments assigned to a

sediment impact zone shall be as authorized by the department, in accordance with the standards of this section.

(c) The department shall determine that the person's activity generating effluent discharges which require authorization of a sediment impact zone is in the public interest.

(d) The department shall determine that any person's activity generating effluent discharges which require authorization of a sediment impact zone has adequately addressed alternative waste reduction, recycling, and disposal options through application of all known, available and reasonable methods of prevention, control, and treatment to minimize as best practicable the volume and concentration of waste contaminants in the discharge.

(e) The area boundaries of the sediment impact zone established by the department shall include the minimum practicable surface area, not to exceed the surface area allowed under subsection (4) of this section.

(f) Adverse effects to biological resources within an authorized sediment impact zone shall be maintained at the minimum chemical contamination and biological effects levels practicable at all times. The department shall consider the relationship between environmental effects, technical feasibility and cost in determining the minimum practicable chemical contamination and biological effects levels. Adverse effects to biological resources within an authorized sediment impact zone shall not exceed a minor adverse effects level as a result of the discharge, as determined by the procedures of subsection (5) of this section.

(g) The operational terms and conditions for the sediment impact zone shall be maintained at all times.

(h) Final closure of the sediment impact zone shall be conducted in strict accordance with the department's sediment impact zone authorization.

(i) Documents authorizing a sediment impact zone shall require that the permitted discharge not result in a violation of the applicable sediment quality standards of WAC 173-204-320 through 173-204-340, outside the area limits of the established zone.

(j) All applications to the department for sediment impact zone authorizations shall be subject to public notice, comment and hearing procedures defined but not limited to the applicable discharge permit or other formal administrative action requirements of chapter 43.21C RCW, the State Environmental Policy Act, chapter 197-11 WAC, SEPA rules, chapter 90.48 RCW, chapter 163-216 WAC, the State waste discharge permit program, and chapter 173-220 WAC, National Pollutant Discharge Elimination System Permit Program prior to issuance of the authorization. In determining the need for, location, and/or design of any sediment impact zone authorization, the department shall give consideration to all comments received during public review of the proposed sediment impact zone application.

(2) Application requirements.

(a) Whenever, in the opinion of the department, as a result of an ongoing or proposed effluent discharge, a

person violates, shall violate, or creates a substantial potential to violate the sediment quality standards of WAC 173-204-320 through 173-204-340 as applicable within a period of ten years from the later date of either the department's evaluation of the ongoing discharge or the starting date of the proposed discharge, the department may require application for a sediment impact zone authorization under authority of chapter 90.48 RCW.

(b) Any person with a proposed or permitted effluent discharge shall apply to the department for authorization of a sediment impact zone when:

(i) The department requires the sediment impact zone application by written notification; or

(ii) The person independently identifies that the ongoing or proposed effluent discharge violates, shall violate, or creates a substantial potential to violate the applicable sediment quality standards of WAC 173-204-320 through 173-204-340 within a period of ten years from the later date of the person's evaluation of the ongoing discharge or the starting date of the proposed discharge, using the procedures of this section.

(c) As necessary, the department may require any person to submit a sediment impact zone application in multiple steps concurrent with its ongoing review and determination concerning the adequacy of the application. The application shall provide the sediment impact zone design information required in subsection (4) of this section and other such information the department determines necessary. The application shall also provide the legal location and landowner(s) of property proposed for use as, or potentially affected by, a sediment impact zone, and shall be accompanied by such other relevant information as the department may require. The department shall issue a written approval of the complete sediment impact zone application prior to or concurrent with authorizing a sediment impact zone.

(d) Submittal of an application to the department for authorization of a sediment impact zone under the terms and conditions of this section shall establish the applicant's interim compliance with requirements of chapter 90.48 RCW and this chapter, as determined by the department. The department may authorize an interim compliance period within a valid discharge permit or administrative order to ensure ultimate compliance with chapter 90.48 RCW and this chapter. The interim compliance period shall not continue beyond the date of issuance of a sediment impact zone authorization within a valid discharge permit issued by the department.

(e) Prior to authorization, the department shall make a reasonable effort to identify and notify all landowners, adjacent landowners, and lessees affected by the proposed sediment impact zone. The department shall issue a sediment impact zone notification letter to any person it believes to be a potentially affected landowner and other parties determined appropriate by the department. The notification letter shall be sent by certified mail, return receipt requested, or by personal service. The notification letter shall provide:

(i) The name of the person the department believes to be the affected landowner;

(ii) The names and addresses of other affected landowners to whom the department has sent a proposed sediment impact zone notification letter;

(iii) The name and address of the sediment impact zone applicant;

(iv) A general description of the location, size, and contamination level proposed for the sediment impact zone;

(v) The intention of the department to release all specific sediment impact zone application information to the public upon written request to the department;

(vi) The determination of the department concerning whether the proposed sediment impact zone application meets the standards of this section;

(vii) The intention of the department whether to authorize the proposed sediment impact zone; and

(viii) Notification that the affected landowners, adjacent landowners, and lessees may comment on the proposed sediment impact zone. Any comments on the proposed sediment impact zone authorization shall be submitted in writing to the department within thirty days from the date of receipt of the notification letter, unless the department provides an extension.

(f) Prior to authorization, the department shall issue a sediment impact zone notification letter to affected port districts, the Washington state department of natural resources marine lands division, the U.S. Army Corps of Engineers, and other parties determined appropriate by the department. The notification letter shall be sent by certified mail, return receipt requested, or by personal service. The notification letter shall provide the information required under (e) of this subsection.

(3) Locational considerations. The department shall require any person applying for a sediment impact zone to submit information concerning potential location considerations of the zone. The location of an authorized sediment impact zone shall avoid whenever possible and minimize adverse impacts to areas of special importance. Prior to authorization of a sediment impact zone, the department shall consider all pertinent information from the applicant, all affected parties, local, state and federal agencies, federally recognized Indian tribes, and the public concerning locational considerations, including but not limited to:

(a) Spawning areas;

(b) Nursery areas;

(c) Waterfowl feeding areas;

(d) Shellfish harvest areas;

(e) Areas used by species of economic importance;

(f) Tribal areas of significance;

(g) Areas determined to be ecologically unique;

(h) Water supply intake areas;

(i) Areas used for primary contact public recreation;

(j) High quality waters that constitute an outstanding national resource; and

(k) Areas where sediment quality is substantially better than levels necessary for protection of biological resources and human health.

(4) Design requirements. The location, areal limitations, and degree of effects allowed within an authorized sediment impact zone shall be determined by application

of the department's sediment impact zone computer models "CORMIX" and/or "WASP 4," or an alternate sediment impact zone model(s) approved by the department under WAC 173-204-130(4), as limited by the standards of this section and the department's best professional judgment. The models shall be used by the department or by the discharger as required by the department, to estimate the impact of any person's wastewater or storm water discharge on the receiving water and sediment quality for a period of ten years from the later date of either the department's formal approval of the application for a sediment impact zone authorization or the starting date of the discharge.

(a) Data requirements. The discharger shall submit the following information to determine requirements for establishment and authorization of a sediment impact zone, as required by the department:

(i) Data reports and analyses results for all samples of wastewater or storm water, receiving water, and sediments collected by the discharger or other parties relating to evaluation of the potential effects of the permitted discharge, as required by WAC 173-204-400.

(ii) Data reports and analyses results determined necessary to:

(A) Apply discharge modeling to the permitted discharge; and

(B) To identify and evaluate potential alternative chemical and biological effects of the discharge on the receiving water and sediments; and

(C) To identify and evaluate potential alternatives to define the areal size and location of a sediment impact zone needed by the discharge.

(iii) Data reports and analyses results from the discharger's application of the "CORMIX" and/or "WASP 4" or an alternate sediment impact zone model(s) approved by the department under WAC 173-204-130(4), to the permitted discharge to identify and evaluate:

(A) Potential alternative chemical and biological effects of the discharge on the receiving water and sediments; and

(B) Potential alternatives for the areal distribution and location of a potential sediment impact zone required by the discharge.

(iv) Preferred alternative for closure of the potential sediment impact zone by active removal and/or natural recovery, and identified costs of the preferred closure method.

(b) Overlapping sediment impact zones. Overlapping sediment impact zones, as predicted by the "CORMIX" and/or "WASP 4" models or an alternate sediment impact zone model(s) approved by the department under WAC 173-204-130(4), and the department's best professional judgment, shall be authorized only as follows:

(i) The applicable sediment impact zone maximum criteria of WAC 173-204-420 shall not be exceeded as a result of the multiple discharge sediment impact zones overlap; and

(ii) If the department determines that the applicable chemical contaminant concentration and biological effects restrictions of WAC 173-204-420 would be exceeded as a result of the overlap of multiple discharge sediment impact zones, the department may authorize the sediment impact zones after:

(A) Application of a waste load allocation process to the individual permitted discharges to identify individual permit effluent limitations necessary to meet:

(I) The applicable chemical contaminant concentration and biological effects restrictions for sediment impact zones required by this section; and/or

(II) Storm water best management practices required by the department; and

(B) Establishment of individual permit compliance schedules for the multiple permitted discharges to ensure compliance with:

(I) The permit effluent limitations established by the department using the waste load allocation process and best professional judgment; and

(II) The standards of WAC 173-204-400 through 173-204-420.

(5) Maintenance requirements.

(a) The department shall review sediment impact zone monitoring conducted by the discharger to evaluate compliance with the department's sediment impact zone authorization and the standards of WAC 173-204-400 through 173-204-420. The department may require additional sediment impact zone monitoring when the department determines that any sediment sampling station within an authorized sediment impact zone exceeds the sediment impact zone maximum criteria of WAC 173-204-420 or violates the sediment impact zone authorization as a result of the discharge.

(b) Whenever the department can clearly demonstrate that, as a result of an effluent discharge, a discharger violates, shall violate, or creates a substantial potential to violate the department's sediment impact zone authorization, or the sediment impact zone maximum criteria of WAC 173-204-420, the department shall:

(i) Provide written notification and supporting documentation of the department's clear demonstration determination to the affected discharger;

(ii) Establish a reasonable time frame for the affected discharger to either submit a written statement and supporting documentation rebutting the department's clear demonstration determination, or accept the department's determination. The discharger may use the clear demonstration methods identified in (c) of this subsection for rebuttal of the department's clear demonstration; and

(iii) Provide written notification of the department's determination concerning approval or denial of the submitted clear demonstration rebuttal to the discharger.

(c) For the purpose of this section, a clear demonstration shall consist of:

(i) Use of the sediment impact zone model(s) "CORMIX" and/or "WASP 4" or other model(s) to demonstrate a discharge(s) is the source of the violation or potential violation; and

(ii) Use of one or more of the following methods to demonstrate a violation of the sediment impact zone authorization or the sediment impact zone maximum criteria of WAC 173-204-420:

(A) Direct sediment sampling. A violation of the sediment impact zone authorization and/or the sediment impact zone maximum criteria of WAC 173-204-420 is demonstrated when:

(I) The average chemical concentration for three stations within the sediment impact zone exceeds the sediment impact zone maximum criteria of WAC 173-204-420 due to the discharge source. This concentration average shall not include stations for which complete biological testing information shows that the biological effects requirements of WAC 173-204-420, or the authorized sediment impact zone if applicable, are met; or

(II) The biological effects at each of any three stations within the sediment impact zone exceed the sediment impact zone maximum biological effects criteria of WAC 173-204-420 or the authorized sediment impact zone as applicable, due to the discharge source; or

(B) Monitoring data which demonstrates a chemical contaminant concentration gradient toward the discharge source exists in sediments which violates the sediment impact zone authorization or the standards of WAC 173-204-420; or

(C) A trend analysis of the effluent chemical discharge quality and in place sediment monitoring data which statistically demonstrates an ongoing violation or substantial potential to violate the sediment impact zone authorization or the standards of WAC 173-204-420; or

(D) Field depositional (e.g., sediment traps) and/or effluent particulate (e.g., centrifuge analysis) data which demonstrate an ongoing violation or substantial potential to violate the sediment impact zone authorization or the standards of WAC 173-204-420; or

(E) Mathematical or computer modeling which demonstrates an ongoing violation or substantial potential to violate the sediment impact zone authorization or the standards of WAC 173-204-420.

(d) The department's response to a clear demonstration of a violation or potential violation shall be to require maintenance activities in the following order:

(i) Require reanalysis of whether the discharger's effluent treatment complies with all known, available and reasonable methods of prevention, control, and treatment and best management practices based on the data used to establish the clear demonstration;

(ii) Alter the authorized sediment impact zone size and/or degree of effects consistent with the standards of this section and the results of direct sediment sampling;

(iii) Reduce impacts of the existing or potential violation by requiring additional discharge controls or additional sediment impact zone maintenance activities which can include, but are not limited to:

(A) Dredging and removal of sediments, solely for sediment impact zone maintenance needs or coordinated with maintenance dredging of commercially important areas, e.g., navigational lanes or ship berthing areas;

(B) Dredging, treatment, and replacement of sediments within the sediment impact zone; and/or

(C) Capping of sediments within the sediment impact zone;

(iv) Limit the quantity and/or quality of the existing permitted discharge; and/or

(v) Withdraw the department's sediment impact zone authorization and require final closure of the zone.

(e) All sediment impact zone maintenance actions conducted under this chapter shall provide for landowner review of the maintenance action plans prior to implementation of the action. In cases where the discharger is not able to secure access to lands subject to the sediment impact zone maintenance actions of this subsection, the department may facilitate negotiations or other proceedings to secure access to the lands. Requests for department facilitation of land access shall be submitted to the department in writing by the responsible discharger.

(6) Closure planning and requirements.

(a) The discharger shall select and identify a preferred method for closure of a sediment impact zone in the application required by WAC 173-204-415(2). Closure methods can include either active cleanup and/or natural recovery and monitoring. The department shall incorporate the discharger's identified closure method in the sediment impact zone authorization.

(b) The department may require closure of authorized sediment impact zones when the department determines that:

(i) The discharger has violated the sediment impact zone maintenance standards of subsection (5) of this section; or

(ii) The department determines that:

(A) The wastewater or storm water discharge quality will not violate the applicable sediment quality standards of WAC 173-204-320 through 173-204-340; or

(B) A sediment impact zone is no longer needed or eligible under the standards of WAC 173-204-410 through 173-204-415.

(7) Modification of sediment impact zones. The department may modify sediment impact zone authorization requirements where the nature of a person's activity which generates, transports, disposes, prevents, controls, or treats effluent discharges has substantially changed and been demonstrated to the department's satisfaction. The modification may occur after consideration of the following:

(a) Reduction of effects. Assessment of the discharge activities and treatment methods shall be conducted by the discharger to demonstrate to the satisfaction of the department that:

(i) Elimination of the sediment impact zone is not practicable; and

(ii) Further reduction in any existing or proposed sediment impact zone area size and/or level of contamination or effects is not practicable in consideration of discharge requirements for all known, available and reasonable methods of prevention, control, and treatment, best management practices, and applicable waste reduction and recycling provisions.

(b) Alterations. There are substantial alterations or additions to the person's activity generating effluent discharges which require authorization of a sediment impact zone which occur after permit issuance and justify application of permit conditions different from, or absent in, the existing permit.

(c) New information. Sediment impact zones may be modified when new information is received by the department that was not available at the time of permit issuance that would have justified the application of different sediment impact zone authorization conditions.

(d) New regulations. The standards or regulations on which the permit was based have changed by amended standards, criteria, or by judicial decision after the permit was issued.

(e) Changes in technology. Advances in waste control technology that qualify as "all known, available and reasonable methods of prevention, control, and treatment" and "best management practices" shall be adopted as permit requirements, as appropriate, in all permits reissued by the department.

(8) Renewal of previously authorized sediment impact zones. Renewal of sediment impact zones previously authorized under the standards of WAC 173-204-410 and this section shall be allowed under the following conditions:

(a) The department determines the discharge activities and treatment methods meet all known, available and reasonable methods of prevention, control, and treatment and best management practices as stipulated by the department; and

(b) The discharger demonstrates to the department's satisfaction that the discharge activities comply with the standards of WAC 173-204-400 through 173-204-420 and with the existing sediment impact zone authorization; and

(c) Reduction of effects. The discharger conducts an assessment of the permitted discharge activities and treatment methods and demonstrates to the department's satisfaction that:

(i) Elimination of the sediment impact zone is not practicable; and

(ii) A further reduction in any existing or proposed sediment impact zone area size and/or level of contamination is not practicable in consideration of discharge requirements for all known, available and reasonable methods of prevention, control, and treatment, best management practices, and applicable waste reduction and recycling provisions.

[Statutory Authority: Chapters 43.21C, 70.105D, 90.48, 90.52, 90.54 and 90.70 RCW. 91-08-019 (Order 90-41), § 173-204-415, filed 3/27/91, effective 4/27/91.]

WAC 173-204-420 Sediment impact zone maximum criteria. This section establishes minor adverse effects as the maximum chemical contaminant concentration, maximum health risk to humans, maximum biological effects level, maximum other toxic, radioactive, biological, or deleterious substance level, and maximum nonanthropogenically affected sediment quality level allowed within authorized sediment impact zones due to

an existing or proposed discharge. If the department determines that the standards of this section are or will be exceeded as a result of an existing or proposed discharge(s), the department shall authorize a sediment impact zone or modify a sediment impact zone authorization consistent with the standards of WAC 173-204-400 through 173-204-420 such that individual permit effluent limitations, requirements, and compliance time periods are sufficient to meet the standards of this section as applicable.

(1) Applicability.

(a) The marine sediment impact zone maximum chemical criteria, and the marine sediment biological effects criteria, and the marine sediment human health criteria, and the marine sediment other toxic, radioactive, biological or deleterious substance criteria and the marine sediment nonanthropogenically affected sediment criteria of this section shall apply to marine sediments within Puget Sound.

(b) Non-Puget Sound marine sediment impact zone maximum criteria. Reserved: The department shall determine on a case-by-case basis the criteria, methods, and procedures necessary to meet the intent of this chapter.

(c) Low salinity sediment impact zone maximum criteria. Reserved: The department shall determine on a case-by-case basis the criteria, methods, and procedures necessary to meet the intent of this chapter.

(d) Freshwater sediment impact zone maximum criteria. Reserved: The department shall determine on a case-by-case basis the criteria, methods, and procedures necessary to meet the intent of this chapter.

(2) Puget Sound marine sediment impact zone maximum chemical criteria. The maximum chemical concentration levels that may be allowed within an authorized sediment impact zone due to a permitted or otherwise authorized discharge shall be at or below the chemical levels stipulated in Table II, Sediment Impact Zone Maximum Chemical Criteria, except as provided for by the marine sediment biological effects restrictions of subsection (3) of this section, and any compliance time periods established under WAC 173-204-410 (6)(d) and 173-204-415.

Table II

Puget Sound Marine Sediment Impact Zones
Maximum Chemical Criteria¹

CHEMICAL PARAMETER	MG/KG DRY WEIGHT (PARTS PER MILLION (PPM) DRY)
ARSENIC	93
CADMIUM	6.7
CHROMIUM	270
COPPER	390
LEAD	530
MERCURY	0.59
SILVER	6.1
ZINC	960
CHEMICAL PARAMETER	MG/KG ORGANIC CARBON (PPM CARBON) ²
LPAH ³	780
NAPHTHALENE	170
ACENAPHTHYLENE	66
ACENAPHTHENE	57
FLUORENE	79
PHENANTHRENE	480

CHEMICAL PARAMETER	MG/KG ORGANIC CARBON (PPM CARBON) ²
ANTHRACENE	1200
2-METHYLNAPHTHALENE	64

CHEMICAL PARAMETER	MG/KG ORGANIC CARBON (PPM CARBON)
HPAH ⁴	5300
FLUORANTHENE	1200
PYRENE	1400
BENZ(A)ANTHRACENE	270
CHRYSENE	460
TOTAL BENZOFLUORANTHENES ⁵	450
BENZO(A)PYRENE	210
INDENO (1,2,3,-C,D) PYRENE	88
DIBENZO (A,H) ANTHRACENE	33
BENZO(G,H,I)PERYLENE	78
1,2-DICHLOROBENZENE	2.3
1,4-DICHLOROBENZENE	9
1,2,4-TRICHLOROBENZENE	1.8
HEXACHLOROBENZENE	2.3
DIMETHYL PHTHALATE	53
DIETHYL PHTHALATE	110
DI-N-BUTYL PHTHALATE	1700
BUTYL BENZYL PHTHALATE	64
BIS (2-ETHYLHEXYL) PHTHALATE	78
DI-N-OCTYL PHTHALATE	4500
DIBENZOFURAN	58
HEXACHLOROBUTADIENE	6.2
N-NITROSODIPHENYLAMINE	11
TOTAL PCB'S	65

CHEMICAL PARAMETER	UG/KG DRY WEIGHT (PARTS PER BILLION (PPB) DRY)
PHENOL	1200
2-METHYLPHENOL	63
4-METHYLPHENOL	670
2,4-DIMETHYL PHENOL	29
PENTACHLOROPHENOL	690
BENZYL ALCOHOL	73
BENZOIC ACID	650

Table II Footnotes

- Where laboratory analysis indicates a chemical is not detected in a sediment sample, the detection limit shall be reported and shall be at or below the criteria value shown in this table. Where chemical criteria in this table represent the sum of individual compounds or isomers, and a chemical analysis identifies an undetected value for one or more individual compounds or isomers, the detection limit shall be used for calculating the sum of the respective compounds or isomers.
- The listed chemical parameter criteria represent concentrations in parts per million, "normalized," or expressed, on a total organic carbon basis. To normalize to total organic carbon, the dry weight concentration for each parameter is divided by the decimal fraction representing the percent total organic carbon content of the sediment.
- The LPAH criterion represents the sum of the following "low molecular weight polynuclear aromatic hydrocarbon" compounds: Naphthalene, Acenaphthylene, Acenaphthene, Fluorene, Phenanthrene, and Anthracene. The LPAH criterion is not the sum of the criteria values for the individual LPAH compounds as listed.
- The HPAH criterion represents the sum of the following "high molecular weight polynuclear aromatic hydrocarbon" compounds: Fluoranthene, Pyrene, Benz(a)anthracene, Chrysene, Total Benzo(a)fluoranthenes, Benzo(a)pyrene, Indeno(1,2,3,-c,d)pyrene, Dibenzo(a,h)anthracene, and Benzo(g,h,i)perylene. The HPAH criterion is not the sum of the criteria values for the individual HPAH compounds as listed.
- The TOTAL BENZOFLUORANTHENES criterion represents the sum of the concentrations of the "B," "J," and "K" isomers.

(3) Puget Sound marine sediment impact zone maximum biological effects criteria. The maximum biological effects level that may be allowed within an authorized

sediment impact zone shall be at or below a minor adverse biological effects level. The acute and chronic effects biological tests of WAC 173-204-315(1) may be used to determine compliance with the minor adverse biological effects restriction within an authorized sediment impact zone as follows:

(a) When using biological testing to determine compliance with the maximum biological effects criteria within a sediment impact zone, a person shall select and conduct any two acute effects tests and any one chronic effects test.

(b) The biological tests shall not be considered valid unless test results for the appropriate control and reference sediment samples meet the performance standards described in WAC 173-204-315(2).

(c) The sediment impact zone maximum biological effects level is established as that level below which any two of the biological tests in any combination exceed the criteria of WAC 173-204-320(3), or one of the following biological test determinations is made:

(i) Amphipod: The test sediment has a higher (statistically significant, t test, $p \leq 0.05$) mean mortality than the reference sediment and the test sediment mean mortality is more than thirty percent higher than the reference sediment mean mortality, on an absolute basis; or

(ii) Larval: The test sediment has a mean survivorship of normal larvae that is less (statistically significant, t test, $p \leq 0.05$) than the mean normal survivorship in the reference sediment sample and the test sediment mean normal survivorship is less than seventy percent of the mean normal survivorship in the reference sediment (i.e., the test sediment has a mean combined abnormality and mortality that is greater than thirty percent relative to time-final in the reference sediment); or

(iii) Benthic abundance: The test sediment has less than fifty percent of the reference sediment mean abundance of any two of the following major taxa: Crustacea, Mollusca or Polychaeta and the test sediment abundances are statistically different (t test, $p \leq 0.05$) from the reference sediment abundances; or

(iv) Juvenile polychaete: The test sediment has a mean biomass of less than fifty percent of the reference sediment mean biomass and the test sediment biomass is statistically different (t test, $p \leq 0.05$) from the reference sediment biomass.

(4) Puget Sound marine sediment impact zone maximum human health criteria. Reserved: The department may determine on a case-by-case basis the criteria, methods, and procedures necessary to meet the intent of this chapter.

(5) Puget Sound marine sediment impact zone maximum other toxic, radioactive, biological, or deleterious substances criteria. Other toxic, radioactive, biological or deleterious substances in, or on, sediments shall be below levels which cause minor adverse effects in marine biological resources, or which correspond to a significant health risk to humans, as determined by the department. The department shall determine on a case-by-case basis the criteria, methods, and procedures necessary to meet the intent of this chapter.

(6) Puget Sound marine sediment impact zone maximum nonanthropogenically affected sediment criteria. Whenever the nonanthropogenically affected sediment quality is of a lower quality (i.e., higher chemical concentrations, higher levels of adverse biological response, or posing a higher threat to human health) than the applicable sediment impact zone maximum criteria established under this section, the existing sediment chemical and biological quality shall be identified on an area-wide basis as determined by the department, and used in place of the standards of WAC 173-204-420.

[Statutory Authority: Chapters 43.21C, 70.105D, 90.48, 90.52, 90.54 and 90.70 RCW. 91-08-019 (Order 90-41), § 173-204-420, filed 3/27/91, effective 4/27/91.]

WAC 173-204-500 Sediment cleanup decision process and policies. (1) The standards of WAC 173-204-500 through 173-204-590 are procedures which specify a cleanup decision process for managing contaminated sediments. These procedures include:

- (a) Screening sediment station clusters of potential concern;
- (b) Conducting hazard assessments to identify cleanup sites;
- (c) Ranking sites identified in (b) of this subsection;
- (d) Determining the appropriate site cleanup authority;
- (e) Conducting a site cleanup study;
- (f) Determining the site-specific cleanup standard;
- (g) Selecting a site cleanup action; and
- (h) Where necessary, authorizing a cleanup site sediment recovery zone.

(2) Under this chapter, the department may require or take those actions necessary to implement the standards of WAC 173-204-500 through 173-204-580 for all contaminated sediment stations on the inventory identified in WAC 173-204-350.

(3) The cleanup process and procedures under this chapter and under other laws may be combined. The department may initiate a cleanup action under this chapter and may upon further analysis determine that another law is more appropriate, or vice versa.

(4) It is the policy of the department to manage sediment cleanup actions towards the goal of reducing and ultimately eliminating adverse effects on biological resources and significant health threats to humans from sediment contamination. To achieve this goal, the department will pursue sediment cleanup decisions and cleanup standards that are as close as practicable to the sediment quality standards of WAC 173-204-320 through 173-204-340, including the consideration of net environmental effects, cost and technical feasibility. The department shall only authorize sediment recovery zones so as to minimize the number, size and adverse effects of all zones, with the intent to eliminate the existence of all such zones whenever practicable.

(5) The department shall endeavor to make sediment cleanup decisions in an expeditious manner, as soon as all needed information is available, consistent with the availability of department resources and the priority of the cleanup site.

[Statutory Authority: Chapters 43.21C, 70.105D, 90.48, 90.52, 90.54 and 90.70 RCW. 91-08-019 (Order 90-41), § 173-204-500, filed 3/27/91, effective 4/27/91.]

WAC 173-204-510 Screening sediment station clusters of potential concern. (1) Using the sediment quality standards inventory of WAC 173-204-350, the department shall analyze the sediment sampling data to identify station clusters of potential concern and station clusters of low concern per the standards of this section. Station clusters of potential concern shall be further evaluated using the hazard assessment standards of WAC 173-204-530. Station clusters of low concern shall remain on the inventory and no further cleanup action determinations shall be taken by the department until the stations are reexamined per subsection (5) of this section.

(2) A station cluster is defined as any number of stations from the inventory of WAC 173-204-350 that are determined to be contiguous. For the purpose of identifying a station cluster of potential concern per the procedures of this subsection, three stations with the highest contaminant concentration for any particular contaminant or the highest degree of biological effects as identified in WAC 173-204-520 are selected from a station cluster. This procedure may be repeated for multiple chemicals identified in WAC 173-204-520, recognizing that the three stations with the highest concentration for each particular contaminant may be different and the respective areas for all chemicals may overlap. The department shall review the inventory of WAC 173-204-350 to identify station clusters of potential concern via the following process:

(a) Identify if available, the three stations within a station cluster with the highest concentration of each chemical contaminant identified in WAC 173-204-520, Cleanup screening levels criteria; and

(b) For each contaminant identified in (a) of this subsection, determine the average concentration for the contaminant at the three stations identified in (a) of this subsection; and

(c) Identify if available, three stations within the station cluster with the highest level of biological effects for the biological tests identified in WAC 173-204-315(1); and

(d) If the average contaminant concentration for any three stations identified in (a) of this subsection, exceeds the applicable cleanup screening level in WAC 173-204-520, then the station cluster is defined as a station cluster of potential concern; and

(e) If the biological effects at each of the three stations from (c) of this subsection exceeds the cleanup screening level in WAC 173-204-520, then the station cluster is defined as a station cluster of potential concern; and

(f) If neither of the conditions of (d) or (e) of this subsection apply, then the station cluster is defined as a station cluster of low concern; and

(g) If the department determines that any three stations within a station cluster exceed the sediment cleanup screening levels human health criteria or the

other toxic, radioactive, biological, or deleterious substances criteria or the nonanthropogenically affected criteria of WAC 173-204-520, then the station cluster is defined as a station cluster of potential concern.

(3) Notification. When a station cluster of potential concern has been identified, the department shall issue notification to the landowners, lessees, onsite dischargers, adjacent dischargers, and other persons determined appropriate by the department prior to the department's conducting a hazard assessment as defined in WAC 173-204-530.

(4) No further cleanup action determinations shall be taken with station clusters of low concern until the inventory of WAC 173-204-350 is updated and the stations reexamined per subsection (5) of this section. Station clusters of low concern shall receive no further consideration for active cleanup, unless new information indicates an increase of chemical contamination at the stations in question. Station clusters of low concern shall be evaluated by the department for improved source control and/or monitoring requirements of this chapter.

(5) The department may at any time reexamine a station or group of stations to reevaluate and identify station clusters of potential concern following the procedures of subsection (2) of this section when new information demonstrates to the department's satisfaction that reexamination actions are necessary to fulfill the purposes of WAC 173-204-500 through 173-204-590.

[Statutory Authority: Chapters 43.21C, 70.105D, 90.48, 90.52, 90.54 and 90.70 RCW. 91-08-019 (Order 90-41), § 173-204-510, filed 3/27/91, effective 4/27/91.]

WAC 173-204-520 Cleanup screening levels criteria. (1) Applicability.

(a) The marine sediment cleanup screening levels chemical criteria, and the marine sediment biological effects criteria, and the marine sediment other toxic, radioactive, biological, or deleterious substance criteria, and the marine sediment nonanthropogenically affected criteria of this section shall apply to marine sediments within Puget Sound. The cleanup screening levels establish minor adverse effects as the level above which station clusters of potential concern are defined, and at or below which station clusters of low concern are defined, per the procedures identified in WAC 173-204-510(2). The cleanup screening levels also establish the levels above which station clusters of potential concern are defined as cleanup sites, per the procedures identified in WAC 173-204-530, Hazard assessment. The criteria in Table III and this section also establish minor adverse effects as the Puget Sound marine sediment minimum cleanup level to be used in evaluation of cleanup alternatives per the procedures of WAC 173-204-560, and selection of a site cleanup standard(s) per the procedures of WAC 173-204-570.

(b) Non-Puget Sound marine sediment cleanup screening levels and minimum cleanup levels criteria. Reserved: The department shall determine on a case-by-case basis the criteria, methods, and procedures necessary to meet the intent of this chapter.

(c) Low salinity sediment cleanup screening levels and minimum cleanup levels criteria. Reserved: The department shall determine on a case-by-case basis the criteria, methods, and procedures necessary to meet the intent of this chapter.

(d) Freshwater sediment cleanup screening levels and minimum cleanup levels criteria. Reserved: The department shall determine on a case-by-case basis the criteria, methods, and procedures necessary to meet the intent of this chapter.

(2) Puget Sound marine sediment cleanup screening levels and minimum cleanup levels chemical criteria. The chemical concentration criteria in Table III establish the Puget Sound marine sediment cleanup screening levels and minimum cleanup levels chemical criteria.

Table III
Puget Sound Marine Sediment
Cleanup Screening Levels
and
Minimum Cleanup Levels—
Chemical Criteria¹

CHEMICAL PARAMETER	MG/KG DRY WEIGHT (PARTS PER MILLION (PPM) DRY)
ARSENIC	93
CADMIUM	6.7
CHROMIUM	270
COPPER	390
LEAD	530
MERCURY	0.59
SILVER	6.1
ZINC	960

CHEMICAL PARAMETER	MG/KG ORGANIC CARBON (PPM CARBON) ²
LPAH ³	780
NAPHTHALENE	170
ACENAPHTHYLENE	66
ACENAPHTHENE	57
FLUORENE	79
PHENANTHRENE	480
ANTHRACENE	1200
2-METHYLNAPHTHALENE	64

CHEMICAL PARAMETER	MG/KG ORGANIC CARBON (PPM CARBON)
HPAH ⁴	5300
FLUORANTHENE	1200
PYRENE	1400
BENZ(A)ANTHRACENE	270
CHRYSENE	460
TOTAL BENZOFLUORANTHENES ⁵	450
BENZO(A)PYRENE	210
INDENO (1,2,3,-C,D) PYRENE	88
DIBENZO (A,H) ANTHRACENE	33
BENZO(G,H,I)PERYLENE	78
1,2-DICHLOROBENZENE	2.3
1,4-DICHLOROBENZENE	9
1,2,4-TRICHLOROBENZENE	1.8
HEXACHLOROBENZENE	2.3
DIMETHYL PHTHALATE	53
DIETHYL PHTHALATE	110
DI-N-BUTYL PHTHALATE	1700
BUTYL BENZYL PHTHALATE	64
BIS (2-ETHYLHEXYL) PHTHALATE	78
DI-N-OCTYL PHTHALATE	4500
DIBENZOFURAN	58
HEXACHLOROBUTADIENE	6.2
N-NITROSODIPHENYLAMINE	11
TOTAL PCB'S	65

CHEMICAL PARAMETER	UG/KG DRY WEIGHT (PARTS PER BILLION (PPB) DRY)
PHENOL	1200
2-METHYLPHENOL	63
4-METHYLPHENOL	670

CHEMICAL PARAMETER	UG/KG DRY WEIGHT (PARTS PER BILLION (PPB) DRY)
2,4-DIMETHYL PHENOL	29
PENTACHLOROPHENOL	690
BENZYL ALCOHOL	73
BENZOIC ACID	650

Table III Footnotes

- 1 Where laboratory analysis indicates a chemical is not detected in a sediment sample, the detection limit shall be reported and shall be at or below the criteria value shown in this table. Where chemical criteria in this table represent the sum of individual compounds or isomers, and a chemical analysis identifies an undetected value for one or more individual compounds or isomers, the detection limit shall be used for calculating the sum of the respective compounds or isomers.
- 2 The listed chemical parameter criteria represent concentrations in parts per million, "normalized," or expressed, on a total organic carbon basis. To normalize to total organic carbon, the dry weight concentration for each parameter is divided by the decimal fraction representing the percent total organic carbon content of the sediment.
- 3 The LPAH criterion represents the sum of the following "low molecular weight polynuclear aromatic hydrocarbon" compounds: Naphthalene, Acenaphthylene, Acenaphthene, Fluorene, Phenanthrene, and Anthracene. The LPAH criterion is not the sum of the criteria values for the individual LPAH compounds as listed.
- 4 The HPAH criterion represents the sum of the following "high molecular weight polynuclear aromatic hydrocarbon" compounds: Fluoranthene, Pyrene, Benz(a)anthracene, Chrysene, Total Benzo(a)fluoranthenes, Benzo(a)pyrene, Indeno(1,2,3-c,d)pyrene, Dibenz(a,h)anthracene, and Benzo(g,h,i)perylene. The HPAH criterion is not the sum of the criteria values for the individual HPAH compounds as listed.
- 5 The TOTAL BENZOFLUORANTHENES criterion represents the sum of the concentrations of the "B," "J," and "K" isomers.

(3) Puget Sound marine sediment cleanup screening levels and minimum cleanup level biological criteria. The biological effects criteria of this subsection establish the Puget Sound marine sediment cleanup screening level, and the Puget Sound marine sediment minimum cleanup level criteria.

(a) The acute and chronic effects biological tests of WAC 173-204-315(1) shall be used to:

(i) Identify the Puget Sound marine sediment cleanup screening level for the purpose of screening sediment station clusters of potential concern using the procedures of WAC 173-204-510(2); and

(ii) Identify the Puget Sound marine sediment cleanup screening level for the purpose of identifying station clusters of low concern and/or cleanup sites using the hazard assessment procedures of WAC 173-204-530(4); and/or

(iii) Identify the Puget Sound marine sediment minimum cleanup level to confirm minimum cleanup level determinations using the procedures of WAC 173-204-570(3).

(b) When using biological testing to determine if station clusters exceed the cleanup screening level or to identify the minimum cleanup level for a contaminated site, test results from at least two acute effects tests and one chronic effects test shall be evaluated.

(c) The biological tests shall not be considered valid unless test results for the appropriate control and reference sediment samples meet the performance standards described in WAC 173-204-315(2).

(d) The cleanup screening level and minimum cleanup level is exceeded when any two of the biological tests exceed the criteria of WAC 173-204-320(3); or one of the following test determinations is made:

(i) Amphipod: The test sediment has a higher (statistically significant, t test, $p \leq 0.05$) mean mortality than the reference sediment and the test sediment mean mortality is more than thirty percent higher than the reference sediment mean mortality, on an absolute basis.

(ii) Larval: The test sediment has a mean survivorship of normal larvae that is less (statistically significant, t test, $p \leq 0.05$) than the mean normal survivorship in the reference sediment and the test sediment mean normal survivorship is less than seventy percent of the mean normal survivorship in the reference sediment (i.e., the test sediment has a mean combined abnormality and mortality that is greater than thirty percent relative to time-final in the reference sediment).

(iii) Benthic abundance: The test sediment has less than fifty percent of the reference sediment mean abundance of any two of the following major taxa: Crustacea, Mollusca or Polychaeta and the test sample abundances are statistically different (t test, $p \leq 0.05$) from the reference abundances.

(iv) Juvenile polychaete: The test sediment has a mean biomass of less than fifty percent of the reference sediment mean biomass and the test sediment biomass is statistically different (t test, $p \leq 0.05$) from the reference sediment biomass.

(4) Puget Sound marine sediment cleanup screening levels and minimum cleanup levels human health criteria. Reserved: The department may determine on a case-by-case basis the criteria, methods, and procedures necessary to meet the intent of this chapter.

(5) Puget Sound marine sediment cleanup screening levels and minimum cleanup levels other toxic, radioactive, biological, or deleterious substances criteria. Other toxic, radioactive, biological, or deleterious substances in, or on, sediments shall be at or below levels which cause minor adverse effects in marine biological resources, or which correspond to a significant health risk to humans, as determined by the department. The department shall determine on a case-by-case basis the criteria, methods, and procedures necessary to meet the intent of this chapter.

(6) Puget Sound marine sediment cleanup screening levels and minimum cleanup levels nonanthropogenically affected sediment criteria. Whenever the nonanthropogenically affected sediment quality is of a lower quality (i.e., higher chemical concentrations, higher levels of adverse biological response, or posing a higher threat to human health) than the applicable cleanup screening levels or minimum cleanup levels criteria established under this section, the existing sediment chemical and biological quality shall be identified on an area-wide basis as determined by the department, and used in place of the standards of WAC 173-204-520.

[Statutory Authority: Chapters 43.21C, 70.105D, 90.48, 90.52, 90.54 and 90.70 RCW. 91-08-019 (Order 90-41), § 173-204-520, filed 3/27/91, effective 4/27/91.]

WAC 173-204-530 Hazard assessment. (1) Purpose. A hazard assessment shall be performed to gather existing and available information to further characterize each station cluster of potential concern identified per WAC 173-204-510.

(2) Hazard assessment requirements. Onsite dischargers, lessees, landowners, and adjacent dischargers shall submit, upon the department's request, all existing and available information that would enable the department to:

(a) Determine the concentration and/or areal extent and depth of sediment contamination at the station cluster of potential concern by:

(i) Identifying the contaminants exceeding the applicable sediment quality standards of WAC 173-204-320 through 173-204-340;

(ii) Identifying individual stations within the station cluster of potential concern which exceed the sediment cleanup screening levels criteria of WAC 173-204-520;

(iii) Identifying the level of toxicity to the applicable biological test organisms of WAC 173-204-320 through 173-204-340;

(iv) Determining where the applicable sediment quality standards of WAC 173-204-320 through 173-204-340, for any given contaminant, is met;

(v) Determining if concentrations of chemicals exist that potentially present a significant threat to human health;

(vi) Defining the location where the minimum cleanup level as defined in WAC 173-204-570 is met.

(b) Identifying and characterizing the present and historic source or sources of the contamination.

(c) Identifying the location of sediment impact zones authorized under WAC 173-204-415.

(d) Identifying sensitive resources in the vicinity of the station cluster of potential concern.

(e) Providing other information as determined necessary by the department for ranking sites under WAC 173-204-540.

(3) The department shall also compile existing and available information from other federal, state, and local governments that pertain to the topics in subsection (2) of this section.

(4) To identify cleanup sites, the department shall use all available information of acceptable quality gathered from the hazard assessment to evaluate station clusters of potential concern identified pursuant to WAC 173-204-510(2). For the purpose of identifying a cleanup site per the procedures of this subsection, three stations with the highest contaminant concentration for any particular contaminant or the highest degree of biological effects as identified in WAC 173-204-520 are selected from a station cluster of potential concern. This procedure may be repeated for multiple chemicals identified in WAC 173-204-520, recognizing that the three stations with the highest concentration for each particular contaminant may be different and the respective areas for all chemicals may overlap. The department shall review the list of station clusters of potential concern to identify cleanup sites via the following process:

(a) Identify if available, three stations within the station cluster of potential concern with the highest level of biological effects for the biological tests identified in WAC 173-204-315(1).

(b) Station clusters of potential concern where the level of biological effects for any three stations within the station cluster of potential concern exceeds the cleanup screening levels of WAC 173-204-520(3) shall be defined as cleanup sites.

(c) Identify if available, the three stations within a station cluster of potential concern with the highest concentration of each chemical contaminant identified in WAC 173-204-520, Cleanup screening levels criteria. For the purpose of identifying a cleanup site per the procedures of this subsection, stations that meet the biological standards of WAC 173-204-520(3) shall not be included in the evaluation of chemical contaminant concentrations.

(d) For each contaminant identified in (c) of this subsection, determine the average concentration for the contaminant at the three stations identified in (c) of this subsection.

(e) Station clusters of potential concern for which any average chemical concentration identified in (d) of this subsection exceeds the cleanup screening level chemical criteria of Table III shall be defined as cleanup sites.

(f) After completion of the hazard assessment, if neither of the conditions of (b) or (e) of this subsection apply, then the station cluster is defined as a station cluster of low concern.

(g) Station clusters of potential concern where the department determines that any three stations within the station cluster of potential concern exceed the sediment cleanup screening levels human health criteria or the other toxic, radioactive, biological, or deleterious substances criteria or the nonanthropogenically affected criteria of WAC 173-204-520, shall be defined as cleanup sites.

[Statutory Authority: Chapters 43.21C, 70.105D, 90.48, 90.52, 90.54 and 90.70 RCW. 91-08-019 (Order 90-41), § 173-204-530, filed 3/27/91, effective 4/27/91.]

WAC 173-204-540 Ranking and list of sites. (1) Purpose. The department shall prepare and maintain a list of contaminated sediment sites in the order of their relative hazard ranking. From this list, the department shall select sites where action shall be taken.

(2) Site ranking. The department shall evaluate each cleanup site identified by the procedures in WAC 173-204-530 on a consistent basis using the procedure described in *Sediment Ranking System* ("SEDRANK"), *January 1990*, and all additions and revisions thereto or other procedures approved by the department. The purpose of ranking is to estimate, based on technical information compiled during the hazard assessment procedures in WAC 173-204-530, the relative potential risk posed by the site to human health and the environment. Information obtained during hazard assessment, plus any additional data specified in "SEDRANK," shall be included in the site hazard ranking evaluation.

(3) Considerations in ranking. In conducting sediment site ranking, the department shall assess both human health hazard and ecological hazard, and consider chemical toxicity, affected resources, and site characteristics for both types of hazards. The department shall also use best professional judgment and other information as necessary on a case-by-case basis to conduct site ranking.

(4) Site reranking. The department may, at its discretion, rerank a site. To rerank a site, the department shall use any additional information within the scope of the hazard ranking evaluation criteria and best professional judgment to establish that a significant change in rank should result.

(5) List of ranked sites.

(a) Contaminated sediment sites that are ranked via "SEDRANK" shall be placed on a list in the order of their relative hazard ranking. The list shall describe the current status of cleanup action at each site and be updated on an annual basis. The department may change a site's status to reflect current conditions on a more frequent basis. The status for each site shall be identified as one or more of the following:

(i) Sites awaiting cleanup action;

(ii) Sites where voluntary, incidental, partial or department initiated cleanup actions, as defined in WAC 173-204-550, are in progress;

(iii) Sites where a cleanup action has been completed and confirmational monitoring is underway;

(iv) Sites with sediment recovery zones authorized under WAC 173-204-590; and/or

(v) Other categories established by the department.

(b) The department shall routinely publish and make the list available to be used in conjunction with a review of ongoing and proposed regulatory actions to determine where and when a cleanup action should be taken. The department shall also make the list available to landowners and dischargers at or near listed sites, and to the public.

(6) Site delisting.

(a) The department may remove a site from the list only after it has determined that:

(i) All cleanup actions except confirmational monitoring have been completed and compliance with the site cleanup study and report and cleanup standard(s) has been achieved; or

(ii) The listing of the site was erroneous.

(b) A site owner or operator may request that a site be removed from the list by submitting a petition to the department. The petition shall state the reason for the site delisting request, and as determined appropriate by the department, shall include thorough documentation of all investigations performed, all cleanup actions taken, and all compliance monitoring data and results to demonstrate to the department's satisfaction that the site cleanup standards have been achieved. The department may require payment of costs incurred, including an advance deposit, for review and verification of the work performed. The department shall review such petitions, however the timing of the review shall be at its discretion and as resources may allow.

(c) The department shall maintain a record of sites that have been removed from the list under (a) of this subsection. This record shall be made available to the public on request.

(7) Relisting of sites. The department may relist a site which has previously been removed if it determines that the site requires further cleanup action.

(8) Delisting notice. The department shall provide public notice and an opportunity to comment when the department proposes to remove a site from the list.

(9) Relationship to hazardous sites list. The department may additionally evaluate cleanup sites on the site list developed under subsection (5) of this section for possible inclusion on the hazardous sites list published under WAC 173-340-330.

[Statutory Authority: Chapters 43.21C, 70.105D, 90.48, 90.52, 90.54 and 90.70 RCW. 91-08-019 (Order 90-41), § 173-204-540, filed 3/27/91, effective 4/27/91.]

WAC 173-204-550 Types of cleanup and authority.

(1) Purpose. The department acknowledges that cleanups of contaminated sediment sites can occur under the authority of chapter 90.48 or 70.105D RCW. Sediment cleanups may also be initiated by the federal government pursuant to the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). This section describes the department's role in department initiated and other cleanup actions.

(2) The department shall use best professional judgment and other information as necessary on a case-by-case basis to determine the appropriate administrative authority for conducting, or requiring contaminated sediment cleanup actions based on, but not limited to, the following considerations:

(a) Source of contaminants requiring cleanup including spills, dredging actions, and wastewater and/or storm water discharges;

(b) Significance of contamination threat to human health and the environment including the degree of contamination and types and number of contaminants;

(c) Public perception concerning the contaminant threat to human health and the environment;

(d) Personal or corporate financial status of the landowner(s) and/or discharger(s);

(e) Enforcement compliance history of the landowner(s) and/or discharger(s);

(f) Status of existing or pending federal, state, or local legal orders or administrative actions; and

(g) Size of cleanup action proposed or determined necessary.

(3) The types of cleanup actions below establish scenarios recognized by the department which may occur to effect cleanup of contaminated sediment sites. All of these types of cleanup actions shall be subject to administrative review and approval of the department under chapters 90.48 and/or 70.105D RCW.

(a) Department initiated cleanup. Department initiated cleanup actions occur when the department uses its authority under chapter 90.48 and/or 70.105D RCW to conduct or require and/or otherwise effect cleanup to meet the intent of this chapter.

(b) Voluntary cleanup. Voluntary cleanup actions are initiated by parties other than the department. The department shall encourage voluntary cleanup actions whenever possible, and as early as possible, to meet the intent of this chapter.

(c) Incidental cleanup. Incidental cleanup actions are conducted when other state or federally permitted activities are ongoing in and/or around the contaminated sediment site. Early coordination of incidental cleanup actions with the department is encouraged to meet the intent of this chapter, chapter 70.105D RCW, and chapter 90.48 RCW, as appropriate.

(d) Partial cleanup. Partial cleanup actions may be conducted when completion of cleanup study requirements under WAC 173-204-560 has identified and proposed discrete site units and cleanup standards, the department has approved the selection of the partial cleanup alternative per the standards of WAC 173-204-580, and the department has determined that awaiting action or decision on conducting a complete site cleanup would have a net detrimental effect on the environment or human health.

(e) CERCLA cleanup. Pursuant to the federal Comprehensive Environmental Response, Compensation and Liability Act, the department may identify chapter 173-204 WAC as an applicable state requirement for cleanup actions conducted by the federal government.

[Statutory Authority: Chapters 43.21C, 70.105D, 90.48, 90.52, 90.54 and 90.70 RCW. 91-08-019 (Order 90-41), § 173-204-550, filed 3/27/91, effective 4/27/91.]

WAC 173-204-560 Cleanup study. (1) Purpose. This section describes cleanup study plan and report standards which meet the intent of cleanup actions required under authority of chapter 90.48 and/or 70.105D RCW, and/or this chapter. Cleanup actions required under authority of chapter 70.105D RCW shall also meet all standards of chapter 173-340 WAC, the Model Toxics Control Act cleanup regulation. The cleanup study plan and report standards in this chapter include activities to collect, develop, and evaluate sufficient information to enable consideration of cleanup alternatives and selection of a site-specific sediment cleanup standard prior to making a cleanup decision. Each person performing a cleanup action to meet the intent of this chapter shall submit a cleanup study plan and cleanup study report to the department for review and written approval prior to implementation of the cleanup action. The department may approve the cleanup study plan as submitted, may approve the cleanup study plan with appropriate changes or additions, or may require preparation of a new cleanup study plan.

(2) Scope of cleanup study plan. The scope of a cleanup study plan shall depend on the specific site informational needs, the site hazard, the type of cleanup action proposed, and the authority cited by the department to require cleanup. In establishing the necessary scope of the cleanup study plan, the department may consider cost mitigation factors, such as the financial resources of the person(s) responsible for the cleanup action. In all cases sufficient information must be

collected, developed, and evaluated to enable the appropriate selection of a cleanup standard under WAC 173-204-570 and a cleanup action decision under WAC 173-204-580. The sediment cleanup study plan shall address:

- (a) Public information/education;
- (b) Site investigation and cleanup alternatives evaluation;
- (c) Sampling plan and recordkeeping; and
- (d) Site safety.

(3) Cleanup study plan public information/education requirements. The cleanup study plan shall encourage coordinated and effective public involvement commensurate with the nature of the proposed cleanup action, the level of public concern, and the existence of, or potential for adverse effects on biological resources and/or a threat to human health. The cleanup study plan shall address proposed activities for the following subjects:

(a) When public notice will occur, the length of the comment periods accompanying each notice, the potentially affected vicinity, and any other areas to be provided notice;

(b) Where public information repositories will be located to provide site information to the public;

(c) Methods for identifying the public's concerns, e.g., interviews, questionnaires, community group meetings, etc.;

(d) Methods for providing information to the public, e.g., press releases, public meetings, fact sheets, etc.;

(e) Coordination of public participation requirements mandated by other federal, state, or local laws;

(f) Amendments to the planned public involvement activities; and

(g) Any other elements that the department determines to be appropriate for inclusion in the cleanup study plan.

(4) Cleanup study plan site investigation and cleanup alternatives evaluation requirements. The content of the cleanup study plan for the site investigation and cleanup alternatives evaluation is determined by the type of cleanup action selected as defined under WAC 173-204-550. As determined by the department, the cleanup study plan shall address the following subjects:

(a) General site information. General information, including: Project title; name, address, and phone number of project coordinator; legal description of the cleanup site; area and volume dimensions of the site; present owners and operators of contaminant source discharges to site; chronological listing of past owners and operators of contaminant source discharges to the site and their respective operational history; and other pertinent information determined by the department.

(b) Site conditions map. An existing site conditions map which illustrates site features as follows:

(i) Property boundaries.

(ii) The site boundary defined by the individual contaminants exceeding the applicable sediment quality standards of WAC 173-204-320 through 173-204-340 at the point where the concentration of the contaminant would meet the:

(A) Cleanup objective; and

- (B) Minimum cleanup level; and
- (C) Recommended cleanup standards.
- (iii) Surface and subsurface topography.
- (iv) Surface and subsurface structures.
- (v) Utility lines.
- (vi) Navigation lanes.
- (vii) Current and ongoing sediment sources.
- (viii) Other pertinent information determined by the department.

(c) Site investigation. Sufficient investigation to characterize the distribution of sediment contamination present at the site, and the threat or potential threat to human health and the environment. Where applicable to the site, these investigations shall address the following:

(i) Surface water and sediments. Investigations of surface water hydrodynamics and sediment transport mechanisms to characterize significant hydrologic features such as: Site surface water drainage patterns, quantities and flow rates, areas of sediment erosion and deposition including estimates of sedimentation rates, and actual or potential contaminant migration routes to and from the site and within the site. Sufficient surface water and sediment sampling shall be performed to adequately characterize the areal and vertical distribution and concentrations of contaminants. Properties of sediments which are likely to influence the type and rate of contaminant migration, or are likely to affect the ability to implement alternative cleanup actions shall be characterized;

(ii) Geology and ground water system characteristics. Investigations of site geology and hydrogeology to adequately characterize the physical properties and distribution of sediment types, and the characteristics of ground water flow rate, ground water gradient, ground water discharge areas, and ground water quality data which may affect site cleanup alternatives evaluations;

(iii) Climate. Information regarding local and regional climatological characteristics which are likely to affect surface water hydrodynamics, ground water flow characteristics, and migration of sediment contaminants such as: Seasonal patterns of rainfall; the magnitude and frequency of significant storm events; prevailing wind direction and velocity;

(iv) Land use. Information characterizing human populations exposed or potentially exposed to sediment contaminants released from the site and present and proposed uses and zoning for shoreline areas contiguous with the site; and

(v) Natural resources and ecology. Information to determine the impact or potential impact of sediment contaminants from the site on natural resources and ecology of the area such as: Sensitive environment, local and regional habitat, plant and animal species, and other environmental receptors.

(d) Sediment contaminant sources. A description of the location, quantity, areal and vertical extent, concentration and sources of active and inactive waste disposal and other sediment contaminant discharge sources which affect or potentially affect the site. Where determined relevant by the department, the following information

shall be obtained by the department from the responsible discharger:

(i) The physical and chemical characteristics, and the biological effects of site sediment contaminant sources;

(ii) The status of source control actions for permitted and unpermitted site sediment contaminant sources; and

(iii) A recommended compliance time frame for known permitted and unpermitted site sediment contaminant sources which affect or potentially affect implementation of the timing and scope of the site cleanup action alternatives.

(e) Human health risk assessment. The current and potential threats to human health that may be posed by sediment site contamination shall be evaluated using a risk assessment procedure approved by the department.

(f) Cleanup action alternatives. Each cleanup study plan shall include an evaluation of alternative cleanup actions that protect human health and the environment by eliminating, reducing, or otherwise controlling risks posed through each exposure pathway and migration route. The number and types of alternatives to be evaluated shall take into account the characteristics and complexity of the site.

(i) The proposed site cleanup alternatives may include establishment of site units, as defined in WAC 173-204-200(24), with individual cleanup standards within the range required by WAC 173-204-570, based on site physical characteristics and complexity, and cleanup standard alternatives established on consideration of cost, technical feasibility, and net environmental impact.

(ii) The proposed site cleanup alternatives may include establishment of a sediment recovery zone as authorized under WAC 173-204-590, Sediment recovery zones. Establishment or expansion of a sediment recovery zone shall not be used as a substitute for active cleanup actions, when such actions are practicable and meet the standards of WAC 173-204-580. The cleanup study plan shall include the following information for evaluation of sediment recovery zone alternatives:

(A) The time period during which a sediment recovery zone is projected to be necessary based on source loading and net environmental recovery processes;

(B) The legal location and landowner(s) of property proposed as a sediment recovery zone;

(C) Operational terms and conditions including, but not limited to proposed confirmational monitoring actions for discharge effluent and/or receiving water column and/or sediment chemical monitoring studies and/or bioassays to evaluate ongoing water quality, sediment quality, and biological conditions within and adjacent to the proposed or authorized sediment recovery zone to confirm source loading and recovery rates in the proposed sediment recovery zone.

(D) Potential risks posed by the proposed sediment recovery zone to human health and the environment;

(E) The technical practicability of elimination or reduction of the size and/or degree of chemical contamination and/or level of biological effects within the proposed sediment recovery zone; and

(F) Current and potential use of the sediment recovery zone, surrounding areas, and associated resources that are, or may be, affected by releases from the zone.

(G) The need for institutional controls or other site use restrictions to reduce site contamination risks to human health.

(iii) A phased approach for evaluation of alternatives may be required for certain sites, including an initial screening of alternatives to reduce the number of potential remedies for the final detailed evaluation. The final evaluation of cleanup action alternatives that pass the initial screening shall consider the following factors:

(A) Overall protection of human health and the environment, time required to attain the cleanup standard(s), and on-site and off-site environmental impacts and risks to human health resulting from implementing the cleanup alternatives;

(B) Attainment of the cleanup standard(s) and compliance with applicable federal, state, and local laws;

(C) Short-term effectiveness, including protection of human health and the environment during construction and implementation of the alternative; and

(D) Long-term effectiveness, including degree of certainty that the alternative will be successful, long-term reliability, magnitude of residual, biological and human health risk, and effectiveness of controls for ongoing discharges and/or controls required to manage treatment residues or remaining wastes cleanup and/or disposal site risks;

(g) Ability to be implemented. The ability to be implemented including the potential for landowner cooperation, consideration of technical feasibility, availability of needed off-site facilities, services and materials, administrative and regulatory requirements, scheduling, monitoring requirements, access for construction, operations and monitoring, and integration with existing facility operations and other current or potential cleanup actions;

(h) Cost, including consideration of present and future direct and indirect capital, operation, and maintenance costs and other foreseeable costs;

(i) The degree to which community concerns are addressed;

(j) The degree to which recycling, reuse, and waste minimization are employed; and

(k) Environmental impact. Sufficient information shall be provided to fulfill the requirements of chapter 43.21C RCW, the State Environmental Policy Act. Discussions of significant short-term and long-term environmental impacts, significant irrevocable commitments of natural resources, significant alternatives including mitigation measures, and significant environmental impacts which cannot be mitigated shall be included.

(5) Cleanup study plan — sampling plan and record-keeping requirements. The cleanup study plan shall address proposed sampling and recordkeeping activities to meet the standards of WAC 173-204-600, Sampling and testing plan standards, and WAC 173-204-610, Records management, and the standards of this section.

(6) Cleanup study plan site safety requirements. The cleanup study plan shall address proposed activities to

meet the requirements of the Occupational Safety and Health Act of 1970 (29 U.S.C. Sec. 651 et seq.) and the Washington Industrial Safety and Health Act (chapter 49.17 RCW), and regulations promulgated pursuant thereto. These requirements are subject to enforcement by the designated federal and state agencies. Actions taken by the department under this chapter do not constitute an exercise of statutory authority within the meaning of section (4)(b)(1) of the Occupational Safety and Health Act.

(7) Cleanup study report. Each person performing a cleanup action to meet the intent of this chapter shall submit a cleanup study report to the department for review and written approval of a cleanup decision prior to implementation of the cleanup action. The sediment cleanup study report shall include the results of cleanup study site investigations conducted pursuant to subsection (4) of this section, and preferred and alternate cleanup action proposals based on the results of the approved cleanup study plan.

(8) Sampling access. In cases where the person(s) responsible for cleanup is not able to secure access to sample sediments on lands subject to a cleanup study plan approved by the department, the department may facilitate negotiations or other proceedings to secure access to the lands. Requests for department facilitation of land access for sampling shall be submitted to the department in writing by the person(s) responsible for the cleanup action study plan.

[Statutory Authority: Chapters 43.21C, 70.105D, 90.48, 90.52, 90.54 and 90.70 RCW. 91-08-019 (Order 90-41), § 173-204-560, filed 3/27/91, effective 4/27/91.]

WAC 173-204-570 Sediment cleanup standards. (1) Applicability and purpose. This section establishes the sediment cleanup standards requirements for cleanup actions required under authority of chapter 90.48 and/or 70.105D RCW, and/or this chapter, and describes the process to determine site-specific cleanup standards.

(2) Cleanup objective. The sediment cleanup objective shall be to eliminate adverse effects on biological resources and significant health threats to humans from sediment contamination. The sediment cleanup objective for all cleanup actions shall be the sediment quality standards as defined in WAC 173-204-320 through 173-204-340, as applicable. The sediment cleanup objective identifies sediments that have no acute or chronic adverse effects on biological resources, and which correspond to no significant health risk to humans, as defined in this chapter.

(3) Minimum cleanup level. The minimum cleanup level is the maximum allowed chemical concentration and level of biological effects permissible at the cleanup site to be achieved by year ten after completion of the active cleanup action.

(a) The minimum cleanup levels criteria of WAC 173-204-520 shall be used in evaluation of cleanup alternatives per the procedures of WAC 173-204-560, and selection of a site cleanup standard(s) per the procedures of this section.

(b) The Puget Sound marine sediment minimum cleanup level is established by the following:

(i) Sediments with chemical concentrations at or below the chemical criteria of Table III shall be determined to meet the minimum cleanup level, except as provided in (b)(iv) of this subsection; and

(ii) Sediments with chemical concentrations that are higher than the chemical criteria of Table III shall be determined to exceed the minimum cleanup level, except as provided in (b)(iii) of this subsection; and

(iii) Sediments with biological effects that do not exceed the levels of WAC 173-204-520(3) shall be determined to meet the minimum cleanup level; and

(iv) Sediments with biological effects that exceed the levels of WAC 173-204-520(3) shall be determined to exceed the minimum cleanup level; and

(v) Sediments which exceed the sediment minimum cleanup level human health criteria or the other toxic, radioactive, biological, or deleterious substances criteria or the nonanthropogenically affected criteria of WAC 173-204-520 as determined by the department, shall be determined to exceed the minimum cleanup level.

(4) Sediment cleanup standard. The sediment cleanup standards are established on a site-specific basis within an allowable range of contamination. The lower end of the range is the sediment cleanup objective as defined in subsection (2) of this section. The upper end of the range is the minimum cleanup level as defined in subsection (3) of this section. The site specific cleanup standards shall be as close as practicable to the cleanup objective but in no case shall exceed the minimum cleanup level. For any given cleanup action, either a site-specific sediment cleanup standard shall be defined, or multiple site unit sediment cleanup standards shall be defined. In all cases, the cleanup standards shall be defined in consideration of the net environmental effects (including the potential for natural recovery of the sediments over time), cost and engineering feasibility of different cleanup alternatives, as determined through the cleanup study plan and report standards of WAC 173-204-560.

(5) All cleanup standards must ensure protection of human health and the environment, and must meet all legally applicable federal, state, and local requirements.

[Statutory Authority: Chapters 43.21C, 70.105D, 90.48, 90.52, 90.54 and 90.70 RCW. 91-08-019 (Order 90-41), § 173-204-570, filed 3/27/91, effective 4/27/91.]

WAC 173-204-580 Cleanup action decision. (1) Each person performing a cleanup action to meet the intent of this chapter shall comply with the standards of WAC 173-204-560(7), Cleanup study report. Except for cleanups conducted under chapter 70.105D RCW, the department shall review each cleanup study report and issue a written approval of one or more of the cleanup action alternatives described in the cleanup study report, or issue a written disapproval of all alternatives described in the cleanup study report. The department's approval of one or more cleanup study report cleanup action alternatives shall constitute the cleanup decision and shall be referenced in one or more permit

or administrative authorities established under chapter 90.48 or 70.105D RCW, Section 401 of the federal Clean Water Act, chapter 173-225 WAC, establishment of implementation procedures of application for certification, or other administrative authorities available to the department. The department may approve the cleanup alternative recommended in the cleanup study report, may approve a different alternative discussed in the report, or may approve an alternative(s) with appropriate conditions. The department's disapproval of all cleanup study report cleanup action alternatives shall be issued by certified mail, return receipt requested, to the cleanup action proponent(s). The procedures for department review of the cleanup study report and selection of a cleanup action under chapter 70.105D RCW shall be in accordance with the procedures of chapter 173-340 WAC.

(2) All cleanup actions conducted under this chapter shall meet the following requirements:

(a) Receive department review and written approval of the preferred and/or alternate cleanup actions and necessary sediment recovery zones proposed in the cleanup study report prior to implementing a cleanup action(s);

(b) Achieve a degree of cleanup that is protective of human health and the environment;

(c) Achieve compliance with applicable state, federal, and local laws;

(d) Achieve compliance with site cleanup standards;

(e) Achieve compliance with sediment source control requirements pursuant to WAC 173-204-400 through 173-204-420, if necessary;

(f) Provide for landowner review of the cleanup study plan and report, and consider public concerns raised during review of the draft cleanup report; and

(g) Provide adequate monitoring to ensure the effectiveness of the cleanup action.

(3) Cleanup time frame.

(a) The cleanup action selected shall provide for a reasonable time frame for completion of the cleanup action, based on consideration of the following factors:

(i) Potential risks posed by the site to biological resources and human health;

(ii) Practicability of achieving the site cleanup standards in less than a ten-year period;

(iii) Current use of the site, surrounding areas, and associated resources that are, or may be, affected by the site contamination;

(iv) Potential future use of the site, surrounding areas, and associated resources that are, or may be, affected by the site contamination;

(v) Likely effectiveness and reliability of institutional controls;

(vi) Degree of, and ability to control and monitor, migration of contamination from the site; and

(vii) Natural recovery processes which are expected to occur at the site that will reduce concentrations of contaminants.

(b) The department may authorize cleanup time frames that exceed the ten-year period used in deriving the site cleanup standards of WAC 173-204-570(4)

where cleanup actions are not practicable to accomplish within a ten-year period.

(4) In evaluating cleanup action alternatives, the department shall consider:

(a) The net environmental effects of the alternatives, including consideration of residual effects, recovery rates, and any adverse effects of cleanup construction or disposal activities;

(b) The relative cost-effectiveness of the alternatives in achieving the approved site cleanup standards; and

(c) The technical effectiveness and reliability of the alternatives.

(5) Public participation. The department shall provide opportunity for public review and comment on all cleanup action study plans, reports, and decisions reviewed and approved by the department, for cleanup actions conducted under this chapter.

(6) Land access. In cases where the person(s) responsible for cleanup is not able to secure access to lands subject to a cleanup action decision made pursuant to this section, the department may facilitate negotiations or other proceedings to secure access to the lands. Requests for department facilitation of land access shall be submitted to the department in writing by the person(s) named in the cleanup action approval.

[Statutory Authority: Chapters 43.21C, 70.105D, 90.48, 90.52, 90.54 and 90.70 RCW. 91-08-019 (Order 90-41), § 173-204-580, filed 3/27/91, effective 4/27/91.]

WAC 173-204-590 Sediment recovery zones. (1) The purpose of this section is to set forth the requirements for establishment and monitoring of sediment recovery zones to meet the intent of sediment quality dilution zones authorized pursuant to RCW 90.48.520. The standards of this section are applicable to cleanup action decisions made pursuant to WAC 173-204-580 where selected actions leave in place marine, low salinity, or freshwater sediments that exceed the applicable sediment quality standards of WAC 173-204-320 through 173-204-340.

(2) General requirements. Authorization of a sediment recovery zone by the department shall require compliance with the following general requirements:

(a) The department shall provide specific authorization for a sediment recovery zone within the written approval of the cleanup study report and cleanup decision required under WAC 173-204-580.

(b) The time period during which a sediment recovery zone is authorized by the department shall be so stated in the department's written approval of the cleanup study report and cleanup decision.

(c) The department's written sediment recovery zone authorization shall identify the legal location and landowners of property proposed as a sediment recovery zone.

(d) Operational terms and conditions for the authorized sediment recovery zone pursuant to subsection (5) of this section shall be maintained at all times.

(e) Where cleanup is not practicable pursuant to the analysis under WAC 173-204-570(4), sediment recovery zones may be authorized for periods in excess of ten years.

(3) A sediment recovery zone authorization issued by the department under the authority of chapter 90.48 or 70.105D RCW, or other administrative means available to the department, does not constitute authorization to trespass on lands not owned by the applicant. These requirements do not address, and in no way alter, the legal rights, responsibilities, or liabilities of the permittee or landowner of the sediment recovery zone for any applicable requirements of proprietary, real estate, tort, and/or other laws not directly expressed as a requirement of this chapter.

(4) Prior to authorization, the department shall make a reasonable effort to identify and notify all landowners affected by the proposed sediment recovery zone. The department shall issue a sediment recovery zone notification letter to any person it believes to be a potentially affected landowner and other parties determined appropriate by the department. The notification letter shall be sent by certified mail, return receipt requested, or by personal service. The notification letter shall provide:

(a) The name of the person the department believes to be the affected landowner; and

(b) The names of other affected landowners to whom the department has sent a proposed sediment recovery zone notification letter; and

(c) The name of the sediment recovery zone applicant; and

(d) A general description of the proposed sediment recovery zone including the chemical(s) of concern by name and concentration, and the area of affected sediment; and

(e) The determination of the department concerning whether the proposed sediment recovery zone application meets the standards of this section; and

(f) The intention of the department whether to authorize the proposed sediment recovery zone; and

(g) Notification that the affected landowner may comment on the proposed sediment recovery zone. Any landowner comments shall be submitted in writing to the department within thirty days from the date of receipt of the notification letter, unless the department provides an extension.

(5) As determined necessary by the department, operational terms and conditions for the sediment recovery zone may include completion and submittal to the department of discharge effluent and/or receiving water column and/or sediment chemical monitoring studies and/or bioassays to evaluate ongoing water quality, sediment quality, and biological conditions within and adjacent to the proposed or authorized sediment recovery zone.

(6) The department shall review all data or studies conducted in accordance with a sediment recovery zone authorization to ensure compliance with the terms and conditions of the authorization and the standards of this section. Whenever, in the opinion of the department, the operational terms and conditions of a sediment recovery

zone or the standards of this section are violated or there is a potential to violate the sediment recovery zone authorization or the standards of this section, or new information or a reexamination of existing information indicates the sediment recovery zone is no longer appropriate, the department may at its discretion:

- (a) Require additional chemical or biological monitoring as necessary;
- (b) Revise the sediment recovery zone authorization as necessary to meet the standards of this section;
- (c) Require active contaminated sediment maintenance actions including additional cleanup in accordance with the standards of WAC 173-204-500 through 173-204-580; and/or
- (d) Withdraw the department's authorization of the sediment recovery zone.

[Statutory Authority: Chapters 43.21C, 70.105D, 90.48, 90.52, 90.54 and 90.70 RCW. 91-08-019 (Order 90-41), § 173-204-590, filed 3/27/91, effective 4/27/91.]

WAC 173-204-600 Sampling and testing plan standards. (1) Applicability. These standards apply to:

- (a) Any person who samples sediments to determine compliance with this chapter;
 - (b) Any person who makes application to the department for authorization of a sediment impact zone under the standards of WAC 173-204-400 through 173-204-420; and
 - (c) Any person who samples sediments consistent with cleanup action plans approved and cleanup actions conducted under this chapter.
- (2) All applicable persons shall at a minimum, develop, keep, and abide by a sediment sampling and testing plan. The sampling and testing plan shall be available for inspection at the request of the department. Sediment sampling and testing plans shall identify sampling dates, sample types, sample depths, sample composites, sample locations, sample positioning methods, sampling personnel, sampling equipment and methods, a description of methods of chemical analysis and biological testing, and quality assurance/quality control procedures.

(3) Sediment sampling locations and procedures and testing protocols and interpretations shall be those included in the Puget Sound protocols as amended and/or other methods approved by the department.

(4) The department reserves the right to revise these sampling and testing protocols when:

- (a) The Puget Sound protocols are modified or updated per the approval of the department; or
- (b) The department determines the Puget Sound protocols are not applicable to, or appropriate for analysis of sediment chemical contamination in any given case.

[Statutory Authority: Chapters 43.21C, 70.105D, 90.48, 90.52, 90.54 and 90.70 RCW. 91-08-019 (Order 90-41), § 173-204-600, filed 3/27/91, effective 4/27/91.]

WAC 173-204-610 Records management. (1) Applicability. These standards apply to:

(a) Any person who samples sediments to determine compliance with this chapter;

(b) Any person who makes application to the department for authorization of a sediment impact zone under the standards of WAC 173-204-400 through 173-204-420.

(2) All applicable persons shall keep sediment sampling and testing records as follows:

(a) Sediment sampling and testing plans which identify sampling dates, sample types, sample composites, sample locations, sample depths, sample positioning method, sampling personnel, sampling equipment and methods, quality assurance/quality control plans, and sampling procedures.

(b) Sediment removal records which identify removal dates, dredging contractor/equipment, volume of sediment removed, analytical data generated during the sediment removal process, and sediment disposal location(s).

(c) Records and results of sediment analyses conducted in accordance with this chapter, or as required under activities authorized under chapter 173-225 WAC, establishment of implementation procedures of application for certification.

(d) Records and results of inspections conducted as required under chapter 173-225 WAC, establishment of implementation procedures of application for certification.

(e) Sediment treatment records.

(f) Sediment onsite capping records.

(g) Sediment disposal records which identify sediment disposal location(s), onsite operating records, sediment volumes, disposal site property owner(s), and the chemical/biological nature of effluent discharges from the disposal location including the name, location, and quality of the receiving water.

(3) All sediment records as required under subsection (2) of this section 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.

(4) All sediment records as required in this section shall be maintained for a period not less than ten years after the issuance, modification, or renewal of the applicable permit, or administrative order, or certification, or cleanup site delisting under WAC 173-204-540(6), whichever is greater.

[Statutory Authority: Chapters 43.21C, 70.105D, 90.48, 90.52, 90.54 and 90.70 RCW. 91-08-019 (Order 90-41), § 173-204-610, filed 3/27/91, effective 4/27/91.]

WAC 173-204-620 Severability. If any provision of this chapter or its application to any person or circumstance is held invalid, the remainder of this chapter or the application of the provision to other persons or circumstances shall not be affected.

[Statutory Authority: Chapters 43.21C, 70.105D, 90.48, 90.52, 90.54 and 90.70 RCW. 91-08-019 (Order 90-41), § 173-204-620, filed 3/27/91, effective 4/27/91.]

Chapter 173-230 WAC
CERTIFICATION OF OPERATORS OF
WASTEWATER TREATMENT PLANTS

WAC
 173-230-090 Fees.

WAC 173-230-090 Fees. (1) Except for applications for certificates under WAC 173-230-050 (2)(a), applications for certification by examination will be accepted for processing only when accompanied by a fee of fifty dollars. Applications for certification by reciprocity will be accepted for processing only when accompanied by a fee of fifty dollars.

(2) Except as provided under WAC 173-230-070(4), applications for reexamination will be accepted for processing only when accompanied by an application fee of fifty dollars.

(3) In the event an application for certification is denied, the department may reimburse up to half the fee amount provided the department receives a written request for reimbursement within thirty days after the letter of denial is mailed.

(4) Applications for certificate renewals will be accepted for processing only when accompanied by a renewal fee of thirty dollars for each year of renewal.

(5) All receipts hereunder shall be paid into the state general fund.

[Statutory Authority: RCW 70.95B.090 (1) and (2) and chapter 70.95B RCW. 91-13-058 (Order 90-61), § 173-230-090, filed 6/17/91, effective 7/18/91. Statutory Authority: RCW 70.95B.040. 87-22-006 (Order 87-36), § 173-230-090, filed 10/23/87; 78-11-016 (Order DE 78-16), § 173-230-090, filed 10/11/78; Order 73-30, § 173-230-090, filed 11/9/73.]

Chapter 173-270 WAC

PUGET SOUND HIGHWAY RUNOFF PROGRAM

WAC
 173-270-010 Purpose, authority, and applicability.
 173-270-020 Definitions.
 173-270-030 Best management practices.
 173-270-040 Vegetation management program.
 173-270-050 New construction.
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 173-270-070 Monitoring.
 173-270-080 Reporting.
 173-270-090 Enforcement.
 173-270-100 Severability.

WAC 173-270-010 Purpose, authority, and applicability. (1) Purpose. The purpose of this chapter is to:

(a) Control highway runoff into waters of the state to the maximum extent possible under state law;

(b) Establish procedures and criteria for WSDOT's highway runoff program mandated by the Puget Sound water quality management plan pursuant to chapter 90.70 RCW; and

(c) Provide for appropriate consultation and coordination with tribes, local governments, and other interested and affected parties.

(2) Authority. The authority for this chapter is provided by chapters 90.48 and 90.70 RCW.

(3) Applicability. This chapter applies to all state highway rights of way in the Puget Sound basin which WSDOT owns or controls by long-term lease or easement, or for which WSDOT has maintenance responsibility. This chapter is applicable subject to the availability of appropriated funds or other funding sources.

Note: Copies of statutes and administrative rules incorporated by reference as a part of this chapter are available at ecology offices in Lacey, Washington during regular business hours.

[Statutory Authority: Chapters 90.48 and 90.70 RCW. 91-11-091 (Order 91-06), § 173-270-010, filed 5/21/91, effective 6/21/91.]

WAC 173-270-020 Definitions. The definitions in this section apply to this chapter unless the context requires otherwise.

(1) "Average daily traffic" or "ADT" means the total traffic volume during a given time period (in whole days) greater than one day and less than one year divided by the number of days in that time period. ADT is determined by WSDOT.

(2) "Best management practices" or "BMPs" means physical, structural, and/or managerial practices that when used singly or in combination prevent or reduce pollution of water and have been approved by ecology. BMPs are listed and described in the manual defined in subsection (9) of this section.

(3) "Broadcast application" means a uniform application of pesticides to an entire area.

(4) "Buffer zone" means the minimum distance that a pesticide is permitted to be applied from a physical feature or sensitive area.

(5) "Capital improvement program plan" means a schedule of permanent physical structural improvements budgeted to fit financial resources.

(6) "Ecology" means the Washington state department of ecology.

(7) "EPA" means the U.S. Environmental Protection Agency.

(8) "Experimental BMP" means any treatment or methodology proposed for treatment of highway runoff that is not in the highway runoff manual, defined in subsection (9) of this section, and is being studied by WSDOT and/or ecology for adoption as a BMP.

(9) "Highway runoff manual" means the manual adopted by WSDOT and approved by ecology that contains BMPs to prevent or reduce pollution, and described in WAC 173-270-030.

(10) "Integrated pest management" or "IPM" means the selection, integration, and implementation of pest control that consists of: Prevention of pest problems; monitoring and evaluation of pests, damage and results of treatment; acknowledgment of population levels of pests that can be tolerated based on legal, economic, health, or aesthetic thresholds; use of natural control agents in an ecosystem; reliance to the maximum extent possible on nonhazardous biological, mechanical, and cultural treatment of pests; application of pesticides in a manner that minimizes damage to the ecosystem's natural controls and integrity; and use of pesticides only after all other methods have been evaluated.

(11) "Local government" means a county, city, town, or special purpose district that has authority to manage stormwater.

(12) "New construction" means the addition of one or more lanes, ramps, bridges, or other major structures to an existing state highway or the construction of a new state highway.

(13) "Pest" means any 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 director of the WSDA may declare by regulation to be a pest, including but not limited to, any insect, other arthropod, fungus, rodent, nematode, mollusk, or weed.

(14) "Pest treatment" means mechanical, biological, cultural, or chemical procedures or methods to manage, control, or reduce the influence of a pest.

(15) "Pesticide" means as defined by chapter 17.21 RCW, the Washington Pesticide Act, and regulated by the United States Environmental Protection Agency and WSDA.

(16) "Pollution" means such contamination or other alteration of the physical, chemical, or biological properties of any waters of the state, including change in temperature, taste, color, turbidity, or odor of the waters, or such discharge of any liquid, gaseous, solid, radioactive, or other substance into any waters of the state as will or is likely to create a nuisance or render such waters harmful, detrimental, or injurious to the public health, safety or welfare, or to domestic, commercial, industrial, agricultural, recreational, or other legitimate beneficial use, or to livestock, wild animals, birds, fish, or other aquatic life.

(17) "Puget Sound basin" means the waters of Puget Sound south of Admiralty Inlet including Hood Canal and Saratoga Passage; the waters north to the Canadian border, including portions of the Strait of Georgia; the Strait of Juan de Fuca south of the Canadian border; and all land draining into these waters as mapped in WAC 173-500-040 Water resource inventory areas numbers 1 through 19.

(18) "Quality assurance and control plan" means a collection of policies, objectives, principles, and procedures for attaining data of known and accepted quality and establishes standards of performance for sampling, monitoring, and measurement.

(19) "Sensitive area" means an area or that due to its ground or surface water characteristics may be adversely affected or altered directly or indirectly by pollution and requires special vegetation management, stormwater management, or other practices.

(20) "Spot treatment" means the application of pesticides to a selected individual area or species.

(21) "Stormwater management manual" means the technical manual prepared by ecology for use by local governments and WSDOT that contains BMPs to prevent or reduce pollution in stormwater.

(22) "Stormwater treatment" means chemical, biological, or mechanical procedures or structural methods to remove, reduce, or neutralize pollution.

(23) "Waters of the state" means lakes, rivers, ponds, streams, inland waters, underground waters, salt waters,

and all other surface waters and water courses within the jurisdiction of the state of Washington.

(24) "Wetlands" means those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. Wetlands are identified and delineated by the "Federal Manual for Identifying Jurisdictional Wetlands" dated January 19, 1989.

(25) "WSDA" means the Washington state department of agriculture.

(26) "WSDOT" means the Washington state department of transportation.

[Statutory Authority: Chapters 90.48 and 90.70 RCW. 91-11-091 (Order 91-06), § 173-270-020, filed 5/21/91, effective 6/21/91.]

WAC 173-270-030 Best management practices. (1) Approved manual required. Six months after the effective date of ecology's stormwater management manual or six months after the effective date of this chapter, whichever is later, WSDOT shall submit to ecology a highway runoff manual. If WSDOT proposes to adopt a manual other than ecology's stormwater management manual as its highway runoff manual, WSDOT shall formally consult with the tribes and local governments about the contents of the highway runoff manual. The highway runoff manual shall be consistent with ecology's stormwater management manual and shall be adopted by WSDOT only after obtaining ecology's approval. After obtaining ecology's approval, WSDOT shall use the highway runoff manual to direct stormwater management for its existing and new facilities and rights of way in the Puget Sound basin.

(2) Amendments to manual.

(a) Ecology initiates amendments. If ecology amends its stormwater management manual to change or add a BMP or other technical requirement that applies to highways, ecology shall notify WSDOT in writing and send WSDOT a copy of the amendment. This notification shall include ecology's determination as to whether the highway runoff manual complies with the amendment. If the highway runoff manual does not comply with the amendment, WSDOT shall submit proposed amendments within sixty days unless ecology agrees to a time extension. Such proposed amendment shall be subject to ecology's review and approval.

(b) WSDOT initiates amendments. Amendments proposed by WSDOT to the approved highway runoff manual shall be submitted to ecology for review and approval. WSDOT shall formally consult with affected tribes and local governments during the development of proposed amendments. Ecology shall review and approve, conditionally approve or deny the proposed amendments within sixty days from the submittal date.

(3) More stringent standards.

(a) WSDOT shall use the minimum standards established in the highway runoff manual but may use more stringent standards.

(b) When a state highway is located in the jurisdiction of a local government that is required by ecology to utilize more stringent standards to protect the quality of receiving waters, WSDOT shall comply with the same standards to promote uniform stormwater treatment.

(c) WSDOT shall comply with standards identified in watershed action plans for WSDOT rights of ways as required by WAC 400-12-570.

(4) Project coordination. WSDOT shall consult with appropriate tribes and local governments and evaluate local conditions for design, construction, and maintenance of stormwater facilities as indicated in WSDOT's utilities manual. Other agencies and organizations that have an interest or expertise in stormwater may also be consulted. WSDOT, tribes, and local governments are encouraged to jointly develop and maintain stormwater facilities.

(5) Contents of manual. The highway runoff manual shall include, but not be limited to, the following:

(a) BMPs for the control of erosion and sedimentation from construction sites, including standards for operation and maintenance;

(b) Hydrologic analysis procedures, including selection of design storms and estimation of runoff;

(c) Design, operation, and maintenance standards for retention and/or detention facilities and conveyance systems that shall emphasize systems which maximize water quality benefits as well as water quantity control, such as inclusion of biofiltration techniques where practicable;

(d) BMPs for the control of pests, excluding weed control which shall be addressed in the vegetation management program described in WAC 173-270-040;

(e) BMPs for the selection and use of deicing chemicals and traction grit which, as a minimum, shall consist of the following: (i) Traction grit particles should be as large as suitable for application on highways for traction purposes because large particles are less readily transported into waters of the state; (ii) selection and use of deicing chemicals shall include consideration of potential effects on water quality and the beneficial uses of potentially affected waters; (iii) stockpiles containing deicing chemicals shall be investigated for existing and potential water quality problems; and (iv) stockpiles that have an identified problem shall be covered, curbed, diked, placed on an impervious surface, and/or located so runoff can not carry dissolved chemicals into waters of the state; and

(f) BMPs for waste disposal from highway runoff system maintenance.

(6) Experimental BMPs.

(a) WSDOT request. WSDOT may request in writing that ecology approve the use of an experimental BMP for one or several sites. The request shall include, but need not be limited to, a description of: (i) The experimental BMP; (ii) why the experimental BMP is being requested; (iii) why the BMPs in the highway runoff manual are not appropriate; (iv) applicable construction techniques; (v) the site or sites at which use of the experimental BMP is proposed; (vi) the characteristics of the site or sites; (vii) design criteria for the experimental

BMP; (viii) maintenance procedures; (ix) cost estimates; (x) monitoring procedures; (xi) the time needed for monitoring; (xii) the anticipated results; (xiii) if appropriate, an approved BMP that could be used if the experimental BMP fails; and (xiv) consultation with interested and affected parties including tribes, local governments, and contiguous property owners.

(b) Ecology review and approval. After reviewing WSDOT's request, ecology may approve, conditionally approve, or deny the use of the experimental BMP for specific sites. Any approval shall be for a period of time not to exceed four years unless ecology determines, upon request and justification by WSDOT, that unusual circumstances justify a longer time period.

(c) Evaluation criteria. In evaluating an experimental BMP, ecology shall consider factors it deems appropriate, including, but not limited to: The experimental BMP's effectiveness in protecting water quality and beneficial uses; its reliability, cost, ease of construction; and maintenance requirements.

(d) BMP status. Before ecology's authorization for WSDOT's use of the experimental BMP expires, WSDOT shall consult with affected tribes, local governments, or property owners. WSDOT shall document the results of the experimental BMP and shall determine whether to request amendment of the highway runoff manual to include the experimental BMP as an approved BMP. Before ecology's authorization expires, WSDOT shall either request an amendment to the highway runoff manual under subsection (2)(b) of this section or inform ecology in writing that it is not proposing to amend the highway runoff manual to include the BMP. Based upon the predicted results in the original request, monitoring data and other information relevant to WSDOT's request, ecology shall determine whether an experimental BMP that is not proposed to be included in the highway runoff manual shall be replaced with an approved BMP.

[Statutory Authority: Chapters 90.48 and 90.70 RCW. 91-11-091 (Order 91-06), § 173-270-030, filed 5/21/91, effective 6/21/91.]

WAC 173-270-040 Vegetation management program. (1) General. The purposes of vegetation management in highway rights of way are to establish and maintain stable plant communities that resist encroachment by undesirable plants, noxious weeds, and other pests; meet WSDOT operational, health, natural resources, and environmental standards; be cost effective; and protect the public investment with minimal negative impacts on the environment.

(2) Program required. WSDOT shall prepare and implement a vegetation management program for all state highways within the Puget Sound basin. WSDOT shall obtain ecology's preliminary approval of the program before WSDOT conducts a public hearing. WSDOT shall formally consult with the tribes and local governments during preparation of the proposed program. After the public hearing, WSDOT shall obtain ecology's approval before WSDOT adopts the program. The program shall be adopted by September 30, 1991. WSDOT and ecology shall review the program at least every two years beginning September 30, 1993. Either ecology or

WSDOT may initiate amendment of the program. Amendments shall be prepared, approved, and adopted in accordance with the procedures of this subsection for the initial development of the vegetation management program.

(3) Contents of program.

(a) The vegetation management program shall include, but need not be limited to vegetation management policies; technical guidelines; procedures to implement policies and guidelines; and roadside management plan procedures and standards.

(b) Vegetation management policies. These policies, at a minimum, shall address:

(i) Operational, aesthetic, and environmental standards;

(ii) Integrated pest management;

(iii) Coordination between WSDOT and local governments, abutting property owners, and tribes, including public notification, option to maintain by contiguous property owner and the option to maintain by a preferred management technique of the contiguous property owner;

(iv) Recordkeeping;

(v) Training and education for vegetation management employees; and

(vi) Testing for pesticides at storage, loading, and mixing areas and, if necessary, in ground water and nearby surface water that may be contaminated by or affected by pesticides.

(c) Technical guidelines. These guidelines, at a minimum, shall address:

(i) Integrated pest management which shall address monitoring, establishing injury levels, setting action levels, selecting treatment, and evaluating treatment.

(A) Monitoring. Monitoring guidelines shall provide for: Identification of the potential pest and/or problem and sensitive areas; and observation of the vegetation on the site, or the site itself for potential pest problems at regular intervals. The schedule and methods of monitoring shall be appropriate to minimize the severity of damage caused by the pest.

(B) Establishing injury levels. Guidelines for establishing injury levels shall provide for determination of when a pest is likely to cause significant damage and require action to prevent unacceptable damage or public safety problems. Accurate records shall be kept so adequate data is available to make decisions. A problem shall be noted before any action is taken.

(C) Setting action levels. Guidelines for setting action levels shall provide for prioritization of target species and determination of when to initiate action so that unacceptable injury levels are not reached.

(D) Selecting treatment. Selection of pest treatment strategies and tactics shall provide for safety of highway users; protect the environment and human health; and provide for the stewardship of the public investment. This shall include an effort to minimize the use of chemical controls.

(E) Evaluating treatment. After pest treatment, the site shall be inspected to determine whether the pest

treatment had the desired results. Adequate time shall be provided for the pest treatment to function before it is evaluated. If the pest treatment did not have the desired results, the treatment may be modified. Desired results may be examined to determine if they were realistic and/or appropriate;

(ii) Measures to reduce the amount of pesticides used to the least possible including measures to reduce the use of any state restricted use pesticides on WSDA's list for the protection of ground water found in WAC 16-228-164;

(iii) Criteria for the selection of pesticides that shall include, but not be limited to, target specificity, toxicity, persistence, migration characteristics, time of application and site conditions of treatment area, including slope and permeability;

(iv) Procedures for sampling and analysis for pesticide contamination in storage, loading, and mixing areas and, if appropriate, ground water and surface water with the use of Puget Sound protocols for sediment sampling of marine sediment for EPA priority pollutants is recommended where appropriate;

(v) A spill cleanup plan;

(vi) Methods for safe transportation of pesticides;

(vii) A recordkeeping system on pesticide use, including format;

(viii) Criteria for the identification of sensitive areas;

(ix) Buffer zones to protect waters of the state, public and private supply wells and watersheds, irrigation ditches, ecology regulated areas, and sensitive areas;

(x) Pesticide storage including a requirement that pesticides shall be stored in a secure building with an impermeable floor and controlled drains;

(xi) Vegetation selection in accordance with WSDOT's design manual with emphasis given to reduced maintenance; and

(xii) Vegetation management personnel training and education.

(d) Procedures for the implementation of the policies and guidelines.

(e) Procedures and standards for the preparation and implementation of roadside management plans for specific segments of state highway to assist WSDOT field crews manage state highway rights of way according to the approved vegetation management policies and technical guidelines. WSDOT shall consult with affected tribes, local governments, and other interested parties during preparation of these procedures and standards. WSDOT shall consult with affected tribes, local governments, and other interested parties during preparation of roadside management plans. These plans, at a minimum, shall address:

(i) Goals and objectives;

(ii) Identification of sensitive areas and minimum buffer zones;

(iii) Maintenance activities;

(iv) Budget estimates; and

(v) Evaluation methods and standards.

[Statutory Authority: Chapters 90.48 and 90.70 RCW. 91-11-091 (Order 91-06), § 173-270-040, filed 5/21/91, effective 6/21/91.]

WAC 173-270-050 New construction. WSDOT shall incorporate BMPs in all new construction projects for which design is started after the effective date of this chapter. For projects that are being designed or constructed when this chapter becomes effective, WSDOT shall implement BMPs to the maximum extent practicable to protect water quality. If the cost of constructing water quality BMPs makes a project that is being designed when this chapter becomes effective impracticable, then such BMPs shall be retrofitted at a later date. WSDOT shall submit water pollution control plans to ecology for review and approval for new construction and shall obtain other appropriate authorizations prior to construction.

[Statutory Authority: Chapters 90.48 and 90.70 RCW. 91-11-091 (Order 91-06), § 173-270-050, filed 5/21/91, effective 6/21/91.]

WAC 173-270-060 Existing facilities. (1) Inventory required. WSDOT shall prepare and maintain an inventory of all state highways in the Puget Sound basin. The purpose of the inventory is to determine where water quality BMPs need to be installed, to assist identification of priority projects, and to provide a basis for the evaluation of the program. WSDOT shall begin its inventory on highways with an ADT of fifty thousand or greater. The inventory and rating of highways with an ADT of less than fifty thousand shall be sufficient to provide projects for the six-year capital improvement program plan.

(2) Contents of inventory. The inventory shall be developed for homogeneous highway segments and shall include, but not be limited to:

(a) Highway segment identification including name, location, type, traffic volume classification, local government(s) with jurisdiction, interested tribes, and WSDOT district;

(b) Status of stormwater management as follows: (i) BMPs are present and/or a local government is receiving and/or treating the highway runoff; (ii) BMPs are feasible or the local government will receive and/or treat highway runoff; or (iii) BMPs are not practicable; and

(c) Name of any water quality project completed since the effective date of this chapter, length of project, year of construction, and cost.

(3) Priority rating and ranking.

(a) WSDOT shall establish an annual project priority list for each WSDOT district within the Puget Sound basin. For each fiscal year WSDOT shall select needed improvements for each district inventoried as required by subsection (1) of this section. WSDOT shall divide these needed improvements into projects, considering funds available but in no case less than one project per year in each district unless all needed projects are completed.

(b) Priority rating criteria. WSDOT shall develop a priority rating and ranking system and submit it to ecology for concurrence.

(c) Priority ranking. WSDOT, using the priority ratings and rankings prepared using the system required in subsection (2)(b) of this section, shall determine which projects are to be implemented in each WSDOT district

during the fiscal year. WSDOT may modify this ranking for good reason including the participation in a joint project proposed by a local government or tribe.

(4) Capital improvement program plan.

(a) The capital improvement program plan is to promote efficient use of resources, to coordinate projects, to aid compliance with the long-range program targets set forth in subsection (5) of this section and to ensure that difficult projects and those that require lengthy lead time are constructed in a reasonable time.

(b) WSDOT shall prepare a biennially updated water quality capital improvement program plan. WSDOT shall consult with ecology, tribes, and local governments throughout the planning process including the inventory. The capital improvement program plan shall be for a six-year period and include the following:

(i) An inventory of potential projects for the six-year period, including fiscal, technical, work force, legislative requirements, restrictions, and an initial evaluation of their relative priority;

(ii) A schedule for potential execution of projects in a long-range program list which considers priority relationships of projects coupled with legislative, fiscal, technical, and work force restrictions;

(iii) Selection of projects for early action from this schedule; and

(iv) Formal adoption by WSDOT after public review.

(c) Ecology shall review the proposed WSDOT capital improvement program plan and submit written comments to WSDOT before public review and again before adoption by WSDOT.

(d) After a public hearing, WSDOT shall adopt the capital improvement program plan after making appropriate revisions deemed necessary by public input.

(5) Long-range program.

(a) WSDOT shall complete all practicable BMP projects or transmit highway runoff to tribes or local governments for stormwater treatment for highways with an ADT of fifty thousand and greater by December 31, 2005, and for other highways by December 31, 2015.

(b) At least every six years WSDOT and ecology shall evaluate these target dates. Ecology or WSDOT may initiate revision of the target dates. In evaluating any proposed revision of a target date, ecology and WSDOT are to consider factors including, but not limited to, the number and projected costs of the projects yet to be completed, the degree of difficulty to construct the remaining sites, the projected level of funding, any revisions to the state water quality standards and any revisions to the manual required by WAC 173-270-030(1).

(6) Negotiations. Before transmitting to or requesting treatment of highway runoff by a tribe, local government or property owner, WSDOT shall negotiate with the tribe, local government, or property owner. WSDOT shall provide relevant information that shall include, but not be limited to, existing agreements to accept highway runoff, characteristics of the highway runoff, the reasons WSDOT is not treating the runoff on its own right of way and any proposed financial considerations for quality and/or quantity control.

(7) Disposal sites. WSDOT shall prepare an inventory, by district and maintenance area, of all sites, including all known inactive sites, where WSDOT disposes highway sweepings and sediments from stormwater facilities maintenance activities. Inventory information for WSDOT owned and leased sites and sites WSDOT for which has an easement shall include a scaled map illustrating property boundaries and the extent of the fill area, and where possible, an estimate of the volume of the fill present.

[Statutory Authority: Chapters 90.48 and 90.70 RCW. 91-11-091 (Order 91-06), § 173-270-060, filed 5/21/91, effective 6/21/91.]

WAC 173-270-070 Monitoring. (1) BMP effectiveness monitoring.

(a) Monitoring procedures. WSDOT shall formulate and implement monitoring procedures for each type of BMP employed. The procedures shall include a quality assurance and control plan.

(b) Waivers. After application by WSDOT, ecology may grant a waiver from monitoring a BMP if ecology determines there is adequate knowledge about the BMP's water quality performance.

(2) Pesticide monitoring. WSDOT shall formulate a pesticide monitoring policy, including but not limited to, threshold determination and frequency of monitoring. WSDOT also shall formulate procedures for monitoring pesticides, including the use of benthic organisms.

[Statutory Authority: Chapters 90.48 and 90.70 RCW. 91-11-091 (Order 91-06), § 173-270-070, filed 5/21/91, effective 6/21/91.]

WAC 173-270-080 Reporting. (1) Biennial report required. WSDOT shall prepare and submit to ecology a report by September 30 of each odd-numbered year beginning September 30, 1991.

(2) Content of report. The biennial report shall include, but is not limited to:

(a) Monitoring report for both approved and experimental BMPs and pesticides describing monitoring procedures and interpreting results. Included may be recommendations to improve monitoring procedures, findings on which BMPs are the most effective, combinations of BMPs that optimize pollution removal, and recommendations for experimental BMPs;

(b) A pesticide usage inventory, including (i) the amount of pesticides by product by pounds of active ingredient applied for shoulder residual, landscaped areas, brush control, general weed control, noxious weed control, spot treatment and broadcast application by district, area, highway segment, and if feasible, by county and (ii) an analysis and interpretation shall be included with the data;

(c) Storage, loading, and mixing area soil and ground water contamination report for the presence of pesticides, including any cleanup efforts required, proposed, or completed since the adoption of this chapter;

(d) A deicing chemicals and traction grit usage report including:

(i) Product and quantities of deicing chemicals used in the Puget Sound basin by WSDOT district and maintenance area including chemical properties and known effects upon water quality;

(ii) Stockpile locations, with quantities of traction grit abrasive and deicing chemicals used during each season;

(iii) Cleanup practices to prevent or lessen traction grit and deicing chemical entry into waters of the state;

(iv) Locations prohibiting use of deicing chemicals or specific products due to water quality considerations;

(v) Training of personnel;

(vi) Experiments conducted on new products or procedures and experiments that WSDOT proposes;

(e) BMP maintenance report. Reports that shall submit BMP maintenance reports to ecology that shall include, but are not limited to:

(i) Dates that segments of state highway BMPs are inspected and/or maintained;

(ii) The general condition of BMPs;

(iii) Maintenance accomplished;

(iv) The need to reconstruct any BMPs;

(v) Any evaluation of a BMP type;

(vi) Estimated cost to maintain a BMP;

(vii) Suggested improvements to BMPs or their maintenance procedures; and

(viii) Training of personnel;

(f) Inventory for state highways with a fifty thousand ADT or greater required by WAC 173-270-060(1);

(g) Priority list for state highways with less than fifty thousand ADT required by WAC 173-270-060(3);

(h) Capital improvement program required by WAC 173-270-060(4);

(i) Inventory of all WSDOT highway disposal sites required by WAC 173-270-060(6);

(j) Status of roadside management plans by district and maintenance area; and

(k) A summary of the negotiations required by WAC 173-270-060(6).

[Statutory Authority: Chapters 90.48 and 90.70 RCW. 91-11-091 (Order 91-06), § 173-270-080, filed 5/21/91, effective 6/21/91.]

WAC 173-270-090 Enforcement. Water quality requirements of this chapter shall be enforced through all methods available to ecology, including, but not limited to, those described in chapter 90.48 RCW. For all non-water quality shortfalls WSDOT shall submit written explanation to ecology, together with proposed remedies.

[Statutory Authority: Chapters 90.48 and 90.70 RCW. 91-11-091 (Order 91-06), § 173-270-090, filed 5/21/91, effective 6/21/91.]

WAC 173-270-100 Severability. If any provision of this chapter or its application to any person, entity, or circumstance is held invalid, the remainder of this chapter or the application of the provision to other persons, entities, or circumstances shall not be affected.

[Statutory Authority: Chapters 90.48 and 90.70 RCW. 91-11-091 (Order 91-06), § 173-270-100, filed 5/21/91, effective 6/21/91.]

Chapter 173-300 WAC
CERTIFICATION OF OPERATORS OF SOLID
WASTE INCINERATOR AND LANDFILL
FACILITIES

WAC

173-300-070 Certification of inspectors.

WAC 173-300-070 Certification of inspectors. (1)

Any person who is employed by a public agency to inspect the operation of a landfill or incinerator described under this chapter to determine the compliance of the facility with state or local laws or rules shall receive, in addition to the successful completion of the training and examination process as an operator under this chapter, training relevant to the inspection procedure.

(2) Inspectors shall be exempt from all certification fees.

[Statutory Authority: Chapter 70.95D RCW, 91-12-040 (Order 91-30), § 173-300-070, filed 6/4/91, effective 7/5/91. Statutory Authority: Chapter 70.95D RCW and RCW 70.95.710, 91-01-093, § 173-300-070, filed 12/18/90, effective 1/1/91.]

Chapter 173-303 WAC
DANGEROUS WASTE REGULATIONS

WAC

- 173-303-016 Identifying solid waste.
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- 173-303-515 Special requirements for used oil burned for energy recovery.
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- 173-303-808 Demonstrations for dangerous waste land treatment final facility permits.
- 173-303-810 General permit conditions.
- 173-303-830 Permit changes.
- 173-303-9903 Discarded chemical products list.
- 173-303-9904 Dangerous waste sources list.
- 173-303-9906 Toxic dangerous waste mixtures graph.
- 173-303-9907 Persistent dangerous waste mixtures graph.

WAC 173-303-016 Identifying solid waste. (1) Purpose and applicability.

(a) The purpose of this section is to identify those materials that are and are not solid wastes.

(b) (i) The definition of solid waste contained in this section applies only to wastes that also are dangerous for purposes of the regulations implementing chapter 70.105 RCW. For example, it does not apply to materials (such as nondangerous scrap, paper, textiles, or rubber) that are not otherwise dangerous wastes and that are recycled.

(ii) This section identifies only some of the materials which are solid wastes and dangerous wastes under chapter 70.105 RCW. A material which is not defined as a solid waste in this section, or is not a dangerous waste identified or listed in this section, is still a solid waste and a dangerous waste for purposes of these sections if reason and authority exists under chapter 70.105 RCW and WAC 173-303-960. Within the constraints of chapter 70.105 RCW, this shall include but not be limited to any material that: Is accumulated, used, reused, or handled in a manner that poses a threat to public health or the environment; or, due to the dangerous constituent(s) in it, when used or reused would pose a threat to public health or the environment.

(c) Certain materials are solid wastes but are excluded from the requirements of this chapter by WAC 173-303-071.

(2) The following terms are used and shall have the meanings as defined in WAC 173-303-040:

- (a) Boiler
 - (b) By-product
 - (c) Incinerator
 - (d) Industrial furnace
 - (e) Reclaim
 - (f) Recover
 - (g) Recycle
 - (h) Used or reused (see reuse or use)
 - (i) Sludge
 - (j) Scrap metal
 - (k) Spent material
- (3) Definition of solid waste.

(a) A solid waste is any discarded material that is not excluded by WAC 173-303-017(2) or that is not excluded by variance granted under WAC 173-303-017(5).

(b) A discarded material is any material which is:

(i) Abandoned, as explained in subsection (4) of this section; or

(ii) Recycled, as explained in subsection (5) of this section; or

(iii) Considered inherently waste-like, as explained in subsection (6) of this section.

(4) Materials are solid waste if they are abandoned by being:

(a) Disposed of; or

(b) Burned or incinerated; or

(c) Accumulated, stored, or treated (but not recycled) before or in lieu of being abandoned by being disposed of, burned, or incinerated.

(5) Materials are solid wastes if they are recycled—or accumulated, stored, or treated before recycling—as specified in (a) through (d) of this subsection.

(a) Used in a manner constituting disposal. Materials noted with a "*" in column 1 of Table 1 are solid wastes when they are:

(i)(A) Applied to or placed on the land in a manner that constitutes disposal; or

(B) Used to produce products that are applied to or placed on the land or are otherwise contained in products that are applied to or placed on the land (in which cases the product itself remains a solid waste).

(ii) However, commercial chemical products listed in WAC 173-303-9903 or which exhibit any of the criteria or characteristics listed in WAC 173-303-100 are not solid wastes if they are applied to the land and that is their ordinary manner of use.

(b) Burning for energy recovery. Materials noted with a "*" in column 2 of Table 1 are solid wastes when they are:

(i) Burned to recover energy;

(ii) Used to produce a fuel or are otherwise contained in fuels (in which cases the fuel itself remains a solid waste).

However, commercial chemical products listed in WAC 173-303-9903 or which exhibit any of the criteria or characteristics listed in WAC 173-303-100 are not solid wastes if they are themselves fuels.

(c) Reclaimed. Materials noted with a "*" in column 3 of Table 1 are solid wastes when reclaimed.

(d)(i) Accumulated speculatively. Materials noted with a "*" in column 4 of Table 1 are solid wastes when accumulated speculatively.

(ii) A material is "accumulated speculatively" if it is accumulated before being recycled. A material is not accumulated speculatively, however, if the person accumulating it can show that the material is potentially recyclable and has a feasible means of being recycled; and that—during the calendar year (commencing on January 1)—the amount of material that is recycled, or transferred to a different site for recycling, equals at least seventy-five percent by weight or volume of the amount of that material accumulated at the beginning of the period. In calculating the percentage of turnover, the seventy-five percent requirement is to be applied to each material of the same type (e.g., slags from a single smelting process) that is recycled in the same way (i.e., from which the same material is recovered or that is used in the same way). Materials accumulating in units that would be exempt from regulation under WAC 173-303-071 (3)(n) are not to be included in making the calculation. (Materials that are already defined as solid wastes also are not to be included in making the calculation.) Materials are no longer in this category once they are removed from accumulation for recycling, however.

TABLE 1

	Use constituting disposal WAC 173-303- 016 (5)(a)	Energy recovery/ fuel WAC 173-303- 016 (5)(b)	Reclamation WAC 173-303- 016 (5)(c)	Speculative accumulation WAC 173-303- 016 (5)(d)
Spent materials	(*)	(*)	(*)	(*)
Commercial chemical products	(*)	(*)	—	—
By-products listed in WAC 173-303-9904	(*)	(*)	(*)	(*)
Sludges listed in WAC 173-303-9904	(*)	(*)	(*)	(*)
By-products exhibiting a characteristic ¹ or criteria ²	(*)	(*)	—	(*)
Sludges exhibiting a characteristic ¹ or criteria ²	(*)	(*)	—	(*)
Scrap metal	(*)	(*)	(*)	(*)

Note: The terms "spent materials," "sludges," "by-products," and "scrap metal" are defined in WAC 173-303-040.

¹ The characteristics of dangerous waste are described in WAC 173-303-090.

² The dangerous waste criteria are described in WAC 173-303-084 and 173-303-101 through 173-303-103.

(6) Inherently waste-like materials. The following materials are solid wastes when they are recycled in any manner:

(a) Dangerous Waste Nos. F020, F021 (unless used as an ingredient to make a product at the site of generation), F022, F023, F026, and F028.

(b) The department will use the following criteria to add wastes to (a) of this subsection:

(i)(A) The materials are ordinarily disposed of, burned, or incinerated; or

(B) The materials contain toxic constituents listed in WAC 173-303-9905 and these constituents are not ordinarily found in raw materials or products for which the materials substitute (or are found in raw materials or products in smaller concentrations) and are not used or reused during the recycling process; and

(ii) The material may pose a substantial hazard to human health or the environment when recycled.

(7) 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.

[Statutory Authority: Chapters 70.105 and 70.105D RCW, 40 CFR Part 271.3 and RCRA § 3006 (42 U.S.C. 3251), 91-07-005 (Order 90-42), § 173-303-016, file 3/7/91, effective 4/7/91. Statutory Authority: Chapter 70.105 RCW, 86-12-057 (Order DE-85-10), § 173-303-016, filed 6/3/86; 84-14-031 (Order DE 84-22), § 173-303-016, filed 6/27/84.]

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. The material must be returned as a substitute for raw material feedstock, and the process must use raw materials as principal feedstocks.

(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., 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 primary 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 primary 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 flame combustion devices as boilers:

(a) The applicant must apply to the department. 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.

[Statutory Authority: Chapters 70.105 and 70.105D RCW, 40 CFR Part 271.3 and RCRA § 3006 (42 U.S.C. 3251), 91-07-005 (Order 90-42), § 173-303-017, file 3/7/91, effective 4/7/91. Statutory Authority: Chapter 70.105 RCW, 87-14-029 (Order DE-87-4), § 173-303-017, filed 6/26/87; 86-12-057 (Order DE-85-10), § 173-303-017, filed 6/3/86; 84-14-031 (Order DE 84-22), § 173-303-017, filed 6/27/84.]

WAC 173-303-040 Definitions. When used in this regulation, 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.")

"Acutely 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" or that show an "X" or "A" in the reason for designation column.

"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.

"Aquatic LC₅₀" (same as TLM₉₆) means a concentration in mg/L (ppm) which kills in 96 hours half of a group of ten or more of a medium sensitivity warm water species of fish such as *Lepomis macrochirus* (bluegill) or *Pimephales promelas* (flathead minnow), or cold water species such as salmonidae, when using the testing method described in WAC 173-303-110.

"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.

"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 shall 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.

"Carcinogenic" means a material known to contain an IARC positive or suspected, human or animal carcinogen.

"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.

"Compliance procedure" shall mean any proceedings instituted pursuant to the Hazardous Waste Disposal 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.

"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 health or environment.

"Contract" means the written agreement signed by the department and the state operator.

"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 173-303-103 as dangerous or extremely hazardous waste. As used in this chapter, the words "dangerous waste" will refer to the full universe of wastes regulated by this chapter (including dangerous and extremely hazardous waste), while the abbreviation "DW" will refer to that part of the regulated universe which is dangerous only, and not extremely hazardous. (See also "extremely hazardous waste" and "hazardous waste" definitions.)

"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.

"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. Release includes, but is not limited to, the actions of: Spilling, leaking, pumping, pouring, emitting, dumping, emptying, depositing, placing, or injecting.

"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 from residential sources 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.

"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 wastes designated in WAC 173-303-070 through 173-303-103 as extremely hazardous. The abbreviation "EHW" will be used in this chapter to refer to those dangerous 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. Unless otherwise specified in this chapter, the terms "facility," "treatment, storage, disposal facility," "TSD facility," "dangerous waste facility" or "waste management facility" shall be used interchangeably.

"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.

"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) means any organic compounds which, as part of their composition, include one or more atoms of fluorine, chlorine, bromine, 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.

"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, 173-303-101, 173-303-102, or 173-303-103.

"Hazardous wastes" means those solid wastes designated by 40 CFR Part 261, and regulated as hazardous 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 using controlled flame combustion that neither meets the criteria for classification as a boiler nor is listed as an industrial furnace.

"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.

"Industrial-furnace" means any of the following enclosed devices that are integral components of manufacturing processes and that use controlled flame devices 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, and pulping liquor recovery furnaces. 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.

"Infectious waste" means organisms or materials listed in WAC 173-303-083, infectious dangerous wastes.

"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.

"Inhalation LC₅₀" means a concentration in milligrams of substance per liter of air which, when administered to the respiratory tract for 4 hours or less, kills within 14 days half of a group of ten rats each weighing between 200 and 300 grams.

"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 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 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 land treatment facility, a surface impoundment, or an underground injection well, a salt dome formation, a salt bed formation, an underground mine, or a cave.

"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.

"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 dangerous 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.

"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 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.

"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, 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.

"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, shall 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.

"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 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.

"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.

"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 benzene rings. For the purposes of this chapter, the PAH of concern for designation are only those PAH with more than three rings and less than seven rings.

"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.

"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:

January 26, 1983 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.

"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.

"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.

"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).

"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 dangerous waste that is solid only (nonliquid, nonaqueous, nongaseous), that is not a regulated hazardous waste under 40 CFR Part 261, and that is designated as only DW in WAC 173-303-090, 173-303-101, 173-303-102, or 173-303-103. Any solid waste that is EHW or 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 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.

"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.

"Thermal treatment" means the use of a device which uses primarily elevated temperatures to treat a dangerous waste.

"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" or "collection facility" means a facility at which dangerous waste shipments are collected, consolidated, and stored for more than ten days before transfer to a storage, treatment, or disposal facility.

"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.

"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.

"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 oil that has been refined from crude oil, used, and, as a result of such use, is contaminated by physical or chemical impurities.

"Waste water treatment unit" means a device which: Is part of a waste water 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 any dangerous waste treated at the facility is designated only by this chapter, chapter 173-303 WAC, and is not regulated as hazardous waste under 40 CFR Part 261; and

Handles dangerous waste as defined in WAC 173-303-070 through 173-303-103 in either of the following manner:

Receives and treats or stores an influent dangerous waste water; or

Generates and accumulates or treats or stores a dangerous waste water 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 shall have either the same meaning as set forth in Title 40 CFR Parts 260, 264, 270, and 124 or else shall 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.

[Statutory Authority: Chapters 70.105 and 70.105D RCW, 40 CFR Part 271.3 and RCRA § 3006 (42 U.S.C. 3251), 91-07-005 (Order 90-42), § 173-303-040, filed 3/7/91, effective 4/7/91. Statutory Authority: Chapter 70.105 RCW, 89-02-059 (Order 88-24), § 173-303-040, filed 1/4/89; 87-14-029 (Order DE-87-4), § 173-303-040, filed 6/26/87; 86-12-057 (Order DE-85-10), § 173-303-040, filed 6/3/86; 84-09-088 (Order DE 83-36), § 173-303-040, filed 4/18/84. Statutory Authority: RCW 70.95.260 and chapter 70.105 RCW, 82-05-023 (Order DE 81-33), § 173-303-040, filed 2/10/82. Formerly WAC 173-302-040.]

WAC 173-303-045 References to EPA's hazardous waste and permit regulations. 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, shall be in reference to those rules as they existed on July 1, 1990. Copies of the appropriate referenced federal requirements are available upon request from the department.

[Statutory Authority: Chapters 70.105 and 70.105D RCW, 40 CFR Part 271.3 and RCRA § 3006 (42 U.S.C. 3251), 91-07-005 (Order 90-42), § 173-303-045, filed 3/7/91, effective 4/7/91. Statutory Authority: Chapter 70.105 RCW, 89-02-059 (Order 88-24), § 173-303-045, filed 1/4/89; 87-14-029 (Order DE-87-4), § 173-303-045, filed 6/26/87; 86-12-057 (Order DE-85-10), § 173-303-045, filed 6/3/86; 84-09-088 (Order DE 83-36), § 173-303-045, filed 4/18/84. Statutory Authority: RCW 70.95.260 and chapter 70.105 RCW, 82-05-023 (Order DE 81-33), § 173-303-045, filed 2/10/82.]

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 his solid waste is designated must follow the procedures set forth in subsection (3) of this section. Any person who determines by these procedures that his waste is designated DW or EHW shall be subject to all applicable requirements of this chapter.

(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; 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 173-303-084 or 173-303-101 through 173-303-103, it does not exhibit any of the criteria of WAC 173-303-101 through 173-303-103.

Such solid waste shall 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.

(3) Designation procedures.

(a) To determine whether or not his waste is designated a person shall check his waste against the following sections, and in the following order:

(i) First, Discarded chemical products, WAC 173-303-081;

(ii) Second, Dangerous waste sources, WAC 173-303-082;

(iii) Third, Infectious dangerous wastes, WAC 173-303-083;

(iv) Fourth, Dangerous waste mixtures, WAC 173-303-084; and

(v) Last, Dangerous waste characteristics, WAC 173-303-090.

(b) In addition to the designation procedures specified in (a) of this subsection, a person may choose or may be required under subsection (4) of this section to check his waste against the following sections, and in the following order:

(i) First, Toxic dangerous wastes, WAC 173-303-101;

(ii) Second, Persistent dangerous wastes, WAC 173-303-102;

(iii) Last, Carcinogenic dangerous wastes, WAC 173-303-103.

(c) A person shall check each section, in the order set forth, until he determines that his waste is designated. Once his waste is designated through the lists, mixtures and characteristics, he need not determine any other

designations for his waste, except as required by subsection (4) or (5) of this section. For the purposes of designating through the criteria, if a person determines that his waste is designated DW, then he must assure that it is not also EHW by checking it against the remaining sections. If the designation procedures identify a waste as both EHW and DW (e.g., a waste may be DW for corrosivity and EHW for EP toxicity), the waste must be designated EHW. If a person has checked his waste against each section that he is required by this section to check and his waste is not designated, then his 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 shall comply with the requirements of WAC 173-303-072.

(4) Criteria designation required. Notwithstanding any other provisions of this chapter, the department may require any person to determine whether or not his waste is designated under the dangerous waste criteria, WAC 173-303-100 through 173-303-103, if the department has reason to believe that his waste would be designated DW or EHW by the dangerous waste criteria, or if the department has reason to believe that his waste is designated improperly (e.g., the waste has been designated DW but should actually be designated EHW by the criteria). If a person, pursuant to the requirements of this subsection, determines that his waste is a dangerous waste or that its designation must be changed, then he shall be subject to the applicable requirements of this chapter 173-303 WAC. The department shall base a requirement to designate a waste by the dangerous waste criteria 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; or

(d) Evidence or information about a person's manufacturing materials or processes which indicate that his wastes may be DW or EHW.

(5) Special knowledge. If a generator has designated his waste under the dangerous waste lists, WAC 173-303-080 through 173-303-082, or mixtures, WAC 173-303-084, and has knowledge that his waste also exhibits any of the dangerous waste characteristics, WAC 173-303-090, or that his waste also meets any of the dangerous waste criteria, WAC 173-303-101 through 173-303-103, or both, then he shall also designate his waste in accordance with those dangerous waste characteristics, or criteria, or both.

(6) Dangerous waste numbers. When a person is reporting or keeping records on a dangerous waste, he shall use all the dangerous waste numbers which he knows are assignable to his waste from the dangerous waste lists, characteristics, or criteria. For example, if his waste is ignitable and contains extremely hazardous concentrations of halogenated hydrocarbons, he shall use the dangerous waste numbers of D001 and WP01. This shall not be construed as requiring a person to designate

his 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 fully subject to the requirements of this chapter. Any solid waste which is not excluded or exempted and which is listed by or exhibits the characteristics or criteria of this chapter is a dangerous waste. Small quantity generators who produce dangerous waste below the QEL are subject to certain 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 identified by this chapter. In such cases, the person must consider the aggregate quantity of his wastes when determining whether or not his waste amounts exceed the specific quantity exclusion limits (QEL). Waste quantities must be aggregated for all wastes with common QEL's. For the purposes of this subsection, when aggregating waste quantities, a person shall include in his calculation dangerous wastes produced by on-site treatment or recycling of dangerous wastes and dangerous wastes being accumulated or stored. For example, if a person generates, accumulates, or stores 300 pounds of an ignitable waste and 300 pounds of a persistent waste, then both wastes are regulated because their aggregate waste quantity (600 pounds) exceeds their common QEL of 220 pounds. On the other hand, if a person generates, accumulates, or stores one pound of an EHW discarded chemical product and 300 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). Additional guidance on aggregating waste quantities is available from the department.

(c) The following are categories of waste that are excluded from the quantity determination and need not be aggregated as required by (b) of this subsection when calculating total waste quantities.

(i) Dangerous waste that is recycled and that is excluded from regulation under WAC 173-303-120 (2)(a), (3)(d) or (e) is not included in the quantity determinations of this section and is not subject to any requirements of this section.

(ii) Spent materials that are generated, reclaimed, and subsequently reused on-site, so long as such spent materials have been counted once.

(8) Small quantity generators.

(a) A person is a small quantity generator and is subject to the requirements of this subsection if his waste is designated under subsection (3) of this section, and the quantity of waste that he generates, accumulates, or stores (or the aggregated quantity if he generates more than one kind of waste) does not exceed the quantity exclusion limit for such waste (or wastes). If a person

generates, accumulates, or stores any dangerous wastes that exceed the QEL, then all dangerous waste generated, accumulated, or stored by that person is subject to the requirements of this chapter. For example, if a person generates four pounds of an EHW 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. A small quantity generator may accumulate such listed or characteristic waste on-site, however when the quantity (or aggregate quantity) on-site at any time exceeds the quantity exclusion limit for such waste (or wastes) he will not be a small quantity generator and will be subject to all applicable requirements of this chapter. A small quantity generator who generates, accumulates, or stores waste in excess of the quantity exclusion limit and becomes subject to the full requirements of this chapter cannot again be a small quantity generator until after all dangerous waste on-site at the time he became fully regulated have been removed, treated, or disposed.

(b) A small quantity generator will not be subject to the requirements of this chapter if he:

(i) Complies with subsections (1), (2), (3), and (4) of this section; and

(ii) Either treats or disposes of his dangerous waste in an on-site facility, or ensures delivery to an off-site facility, either of which 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 his dangerous waste, or that treats his waste prior to such recycling activities; or

(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; and

(iii) Submits an annual report in accordance with WAC 173-303-220 if he has obtained an EPA/state identification number pursuant to WAC 173-303-060.

[Statutory Authority: Chapters 70.105 and 70.105D RCW, 40 CFR Part 271.3 and RCRA § 3006 (42 U.S.C. 3251). 91-07-005 (Order 90-42), § 173-303-070, filed 3/7/91, effective 4/7/91. Statutory Authority: Chapter 70.105 RCW. 89-02-059 (Order 88-24), § 173-303-070, filed 1/4/89; 87-14-029 (Order DE-87-4), § 173-303-070, filed 6/26/87; 86-12-057 (Order DE-85-10), § 173-303-070, filed 6/3/86; 84-14-031 (Order DE 84-22), § 173-303-070, filed 6/27/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-070, filed 2/10/82.]

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 shall 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:

(a) Domestic sewage. "Domestic sewage" means untreated sanitary wastes from residential sources that pass through a sewer system to a publicly owned treatment works (POTW) for treatment. 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. Owners or operators of POTWs managing dangerous wastes may qualify for a permit-by-rule pursuant to WAC 173-303-802(4);

(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 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 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);

(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 173-303-084(6) or 173-303-102. For the purposes of this exclusion, asphaltic materials means materials intended and used for structural and construction purposes (e.g., roads, dikes, paving) which are 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) Waste wood or wood products that fails the test for the toxicity characteristic solely for arsenic and which is not a dangerous waste for any other reason or reasons, if the waste is generated by persons who utilize the arsenical-treated wood or wood products for these materials' intended end use;

(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 and that are dangerous either because they fail the test for toxicity characteristic (WAC 173-303-090(8), Dangerous waste codes D018 through D043 only) or 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 173-303-510, 173-303-515, and 173-303-960;

(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, using EPA's PCB testing method 600/4-81-045, the waste can be shown to contain less than one part per million (ppm) PCB or when, using ASTM method D 4059-86, the waste can be shown to contain less than two parts per million (ppm) PCB;

(iii) 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:

(A) Stored in a manner equivalent to the requirements of 40 CFR 761.65; and

(B) Within one year of removal from service, disposed of either in an incinerator that complies with 40 CFR 761.70, in a chemical waste landfill that complies with 40 CFR 761.75, in a high efficiency boiler that complies with 40 CFR 761.60 (a)(2)(iii) or (a)(3)(iii), or in a facility otherwise approved in accordance with 40 CFR 761.60(e);

(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 173-303-084 or 173-303-103, and any other inorganic wastes which are designated only under WAC 173-303-084 or 173-303-103 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;

(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 through 173-303-103) 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);

(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) The generator ensures that any residues (e.g., sludges, filters, etc.) produced from the collection, reclamation, and reuse of the secondary materials are delivered to a dangerous waste treatment, storage, or disposal facility or legitimate recycler. The generator must be able to provide documentation of such delivery. If the generator can demonstrate that the residues do not exhibit any of the dangerous waste characteristics (WAC 173-303-090) and criteria (WAC 173-303-100 through 173-303-103), then he is exempt from the requirements of this condition in this item (v).

(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 1000 kg of any dangerous waste, 1 kg of acutely hazardous waste, or 250 kg of soils, water, or debris 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 1000 kg of dangerous waste, 1 kg of acutely hazardous waste, or 250 kg of soils, water, or debris contaminated with 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 quantity limits in excess of those specified in (r)(ii)(A) of this subsection, for up to an additional 500 kg of nonacute hazardous waste, 1 kg of acute hazardous waste, and 250 kg of soils, water, or debris 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 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. The additional quantities allowed are subject to all the provisions in (r)(i) and (ii)(B) of

this subsection. The generator or sample collector must apply to the department in the state where the sample is collected and provide in writing the following information:

(A) The reason the generator or sample collector requires additional quantity of sample for the treatability study evaluation and the additional quantity needed;

(B) 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;

(C) A description of the technical modifications or change in specifications which will be evaluated and the expected results;

(D) 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

(E) 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 250 kg of "as received" dangerous waste is subjected 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 laboratory or testing facility for the purpose of evaluation in treatability studies does not exceed 1000 kg, the total of which can include 500 kg of soils, water, or debris contaminated with acutely hazardous waste or 1 kg of acutely hazardous waste. This quantity limitation does not include:

(A) Treatability study residues; and

(B) 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 has elapsed since the generator or sample collector shipped the sample to the laboratory or testing facility, whichever date first occurs.

(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).

[Statutory Authority: Chapters 70.105 and 70.105D RCW, 40 CFR Part 271.3 and RCRA § 3006 (42 U.S.C. 3251), 91-07-005 (Order 90-42), § 173-303-071, filed 3/7/91, effective 4/7/91. Statutory Authority: Chapter 70.105 RCW, 89-02-059 (Order 88-24), § 173-303-071, filed 1/4/89; 87-14-029 (Order DE-87-4), § 173-303-071, filed 6/26/87; 86-12-057 (Order DE-85-10), § 173-303-071, filed 6/3/86; 85-09-042 (Order DE-85-02), § 173-303-071, filed 4/15/85; 84-09-088 (Order DE 83-36), § 173-303-071, filed 4/18/84. Statutory Authority: RCW 70.95.260 and chapter 70.105 RCW, 82-05-023 (Order DE 81-33), § 173-303-071, filed 2/10/82.]

WAC 173-303-072 Procedures and bases for exempting and excluding wastes. (1) Purpose and applicability.

(a) The purpose of this section is to describe the procedures that will be followed by generators and the department when wastes are considered for exemption or exclusion from the requirements of this chapter. Any person(s) whose waste is exempted or excluded will not be subject to the requirements of this chapter unless the department revokes the exemption or exclusion.

(b) Any person seeking a waste exemption must submit a petition to the department according to the procedures of WAC 173-303-910(3). A petition for exemption will be assessed against the applicable bases for exemption described in subsections (3), (4), and (5) of this section.

(c) Any persons seeking to categorically exclude a class of wastes must submit a petition to the department according to the procedures of WAC 173-303-910(4). A petition for exclusion will be assessed against the applicable bases for exclusion described in subsection (6) of this section.

(2) Department procedures. When considering, granting, or denying a petition for exemption or exclusion, the department shall follow the appropriate procedures described in WAC 173-303-910(1).

(3) Bases for exempting wastes. To successfully petition the department to exempt a waste, the petitioner must demonstrate to the satisfaction of the department that:

(a) He has been able to accurately describe the variability or uniformity of his waste over time, and has been able to obtain demonstration samples which are representative of his waste's variability or uniformity; and, either

(b) The representative demonstration samples of his waste are not designated DW or EHW by the dangerous waste criteria, WAC 173-303-100 through 173-303-103; or

(c) It can be shown, from information developed by the petitioner through consultation with the department, that his waste does not otherwise pose a threat to public health or the environment. However, this basis for exemption is not applicable to wastes that exhibit any of the characteristics specified in WAC 173-303-090, except 173-303-090 (6)(a)(iii).

(4) Additional bases for exempting listed wastes. In addition to the demonstrations required by subsections (3)(a) and (b) of this section, for wastes listed in WAC 173-303-081 or 173-303-082 the petitioner must also demonstrate to the satisfaction of the department that his waste is not capable of posing a substantial present or potential threat to public health or the environment when improperly treated, stored, transported, disposed of or otherwise managed. The following factors will be considered by the department when assessing such a demonstration:

(a) Whether or not the listed waste contains the constituent or constituents which caused it to be listed. (For the purposes of this subsection, the constituents referred to will include any of the dangerous waste constituents listed in WAC 173-303-9905);

(b) The nature of the threat posed by the waste constituent(s);

(c) The concentration of the constituent(s) in the waste;

(d) The potential of the constituent(s) or any degradation product of the constituent(s) to migrate from the waste into the environment under the types of improper management considered in (h) of this subsection;

(e) The persistence of the constituent(s) or any degradation product of the constituent(s);

(f) The potential for the constituent(s) or any degradation product of the constituent(s) to degrade into nonharmful constituents and the rate of degradation;

(g) The degree to which the constituent(s) or degradation product of the constituent(s) bioaccumulates in ecosystems;

(h) The plausible types of improper management to which the waste could be subjected;

(i) The quantities of the waste generated at individual generation sites or on a state-wide basis. Under this factor, the department will also consider whether or not

the waste is listed under WAC 173-303-081 as a discarded chemical product and occurs in a relatively pure form. Any waste discarded chemical product which exceeds the quantity exclusion limit specified in WAC 173-303-081(2) for that waste will not be exempted;

(j) The nature and severity of the public health and environmental damage that has occurred as a result of the improper management of wastes containing the constituent(s);

(k) Actions taken by other governmental agencies or regulatory programs based on the health or environmental threat posed by the waste or waste constituent(s); and

(l) Such other factors as may be appropriate.

(5) Bases for exempting wastes designated solely for the presence of chromium. The department will exempt a waste which is designated because of the presence of chromium if the petitioner can demonstrate that:

(a) The waste is not designated for any other characteristic under WAC 173-303-090, or for any of the criteria specified in WAC 173-303-101, 173-303-102 or 173-303-103;

(b) The waste is not 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;

(c) The waste is typically and frequently managed in nonoxidizing environments or under nonoxidizing conditions; and

(d) Either of the following demonstrations can be made:

(i) The waste is generated from a process which uses trivalent chromium exclusively (or nearly exclusively), the process does not generate hexavalent chromium, and the chromium in the waste is exclusively (or nearly exclusively) trivalent chromium; or

(ii) Under test procedures approved by the department, the toxicity characteristic extract of the waste can be shown to contain less than five milligrams per liter (5 mg/L) of hexavalent chromium.

(6) Bases for categorically excluding classes of wastes. This subsection does not apply to any waste class that includes hazardous waste regulated under 40 CFR Part 261. To successfully petition the department to categorically exclude a class of wastes, petitioners must demonstrate to the satisfaction of the department that the petition or petitions for exclusion:

(a) Accurately describe the class of wastes for which categorical exclusion is sought and show that the class of wastes does not include any wastes which would be regulated as hazardous waste under 40 CFR Part 261;

(b) Describe the variability or uniformity of the class of wastes over time and in relation to the individual wastes that comprise the class of waste;

(c) Discuss the generators and their individual wastes that belong to the class of wastes and, to the extent practical, any generators or individual wastes that, although belonging to the class of wastes, are not represented by the petition or petitions; and

(d) For each individual waste within the class of wastes, provide the demonstration described by subsection (3) of this section, except that where it is determined by consultation with the department to be impractical to provide the demonstration for each individual waste, the petitioner or petitioners shall provide the demonstration for samples of the individual wastes determined by consultation with the department to be representative of the class of wastes.

[Statutory Authority: Chapters 70.105 and 70.105D RCW, 40 CFR Part 271.3 and RCRA § 3006 (42 U.S.C. 3251), 91-07-005 (Order 90-42), § 173-303-072, filed 3/7/91, effective 4/7/91. Statutory Authority: Chapter 70.105 RCW, 84-14-031 (Order DE 84-22), § 173-303-072, filed 6/27/84.]

WAC 173-303-081 Discarded chemical products.

(1) A waste shall 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 acutely dangerous 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, shall 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 acutely dangerous chemical products list of WAC 173-303-9903 - 2.2 lbs. (1.0 kg) per month or per batch. Such wastes are designated EHW;

(ii) For chemicals and for residues from the cleanup of spills involving chemicals designated on the moderately dangerous 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 acutely dangerous 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);

(iv) For residues, contaminated soil, water, or other debris from the cleanup of a spill of any chemical designated on the acutely dangerous chemical products list of WAC 173-303-9903 - 220 lbs. (100 kg) per month or per batch. Such wastes are designated EHW.

(b) A person's total monthly waste quantity shall be the sum of all his wastes which share a common quantity exclusion limit (e.g., the total quantity of all EHW discarded chemical products, the total quantity of all residues contaminated by EHW discarded chemical products, 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 shall 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 shall be designated. The mixture designation shall be 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; EHW designation) and 22 lbs. (10 kg) of a solid waste, would be designated as an EHW, and would have the dangerous waste number P004.

(4) For the purposes of this chapter, the term "acutely hazardous waste" shall include discarded chemical products (listed in WAC 173-303-9903) that are identified with a dangerous waste number beginning with a "P" or that show an "X" or "A" in the reason for designation column.

[Statutory Authority: Chapters 70.105 and 70.105D RCW, 40 CFR Part 271.3 and RCRA § 3006 (42 U.S.C. 3251). 91-07-005 (Order 90-42), § 173-303-081, filed 3/7/91, effective 4/7/91. Statutory Authority: Chapter 70.105 RCW. 87-14-029 (Order DE-87-4), § 173-303-081, filed 6/26/87; 86-12-057 (Order DE-85-10), § 173-303-

081, filed 6/3/86; 84-09-088 (Order DE 83-36), § 173-303-081, filed 4/18/84. Statutory Authority: RCW 70.95.260 and chapter 70.105 RCW. 82-05-023 (Order DE 81-33), § 173-303-081, filed 2/10/82.]

WAC 173-303-084 Dangerous waste mixtures. (1) Purpose. It is the purpose of this section to describe the means for designating a waste mixture containing dangerous wastes which are not listed in WAC 173-303-081 through 173-303-083.

(2) References. The National Institute for Occupational Safety and Health's (NIOSH) *Registry of Toxic Effects of Chemical Substances* (Registry) is adopted by reference. The table in the United States EPA's regulations 40 CFR Table 302.4 (Spill Table) is adopted by reference.

(3) Waste mixture defined. For the purposes of this section, a waste mixture shall be any waste about which some or all of its constituents and concentrations are known, and which has not been designated as:

(a) A discarded chemical product under WAC 173-303-081;

(b) A dangerous waste source under WAC 173-303-082;

(c) An infectious dangerous waste under WAC 173-303-083; or

(d) A dangerous waste that has been designated by the criteria of WAC 173-303-101 through 173-303-103.

(4) A person who has a waste mixture shall use data which is available to him, and, when such data is inadequate for the purposes of this section, shall refer to the NIOSH Registry and/or to the EPA Spill Table to determine:

(a) Toxicity data or category for each known constituent in his waste;

(b) Whether or not each known constituent of his waste is a halogenated hydrocarbon or a polycyclic aromatic hydrocarbon with greater than three rings and less than seven rings; and,

(c) Whether or not each known constituent of his waste is an International Agency for Research on Cancer (IARC) human or animal, positive or suspected carcinogen.

(5) Toxicity.

(a) If a person has toxic constituents in his waste, he shall determine the toxic category for each known toxic constituent. The toxic category for each constituent may be determined directly from EPA'S Spill Table, or by obtaining data from the NIOSH Registry and checking this data against the toxic category table, below. If data is available for more than one of the four toxicity criteria (aquatic, oral, inhalation, or dermal), then the data of severest toxicity shall be used, and the most acutely toxic category shall be assigned to the constituent. If EPA's Spill Table and the NIOSH Registry do not agree on the same category, then the category arrived at using the NIOSH Registry will take precedence. If toxicity data for a constituent cannot be found in EPA'S Spill Table, NIOSH Registry, or other source reasonably available to a person, then he need not determine the toxic category for that constituent.

TOXIC CATEGORY TABLE

Category	TLm ₉₆ (Fish) or, Aquatic (Fish) LC ₅₀ (ppm)	Oral (Rat) LD ₅₀ (mg/kg)	Inhalation (Rat) LC ₅₀ (mg/L)	Dermal (Rabbit) LD ₅₀ (mg/kg)
X	<.1	<.5	<.02	< 2
A	.1 - 1	.5 - 5	.02 - .2	2 - 20
B	1 - 10	5 - 50	.2 - 2	20 - 200
C	10 - 100	50 - 500	2 - 20	200 - 2000
D	100 - 1000	500 - 5000	20 - 200	2000 - 20,000

(b) A person whose waste mixture contains one or more toxic constituents shall determine the equivalent concentration for his waste from the following formula:

$$\text{Equivalent Concentration}(\%) = \frac{\Sigma X\%}{10} + \frac{\Sigma A\%}{100} + \frac{\Sigma B\%}{1000} + \frac{\Sigma C\%}{10000} + \frac{\Sigma D\%}{100000}$$

where $\Sigma(X,A,B,C, \text{ or } D) \%$ is the sum of all the concentration percentages for a particular toxic category.

Example 1. A person's waste mixture contains: Aldrin (X Category) - .01%; Diuron (B Category) - 1%; Benzene (C Category) - 4%; Phenol (C Category) - 2%; Cyclohexane (C Category) - 5%; Water (nontoxic) - 87%. His equivalent concentration (E.C.) would be:

$$\begin{aligned} \text{E.C.}(\%) &= \frac{.01\%}{10} + \frac{0\%}{100} + \frac{1\%}{100} + \frac{(4\% + 2\% + 5\%)}{1000} + \frac{0\%}{10000} \\ &= .01\% + 0\% + .01\% + .011\% + 0\% = .031\% \end{aligned}$$

So his equivalent concentration equals .031%.

(c) A person whose waste mixture contains toxic constituents shall determine his designation from the toxic dangerous waste mixtures graph in WAC 173-303-9906 by finding the equivalent concentration percentage for his waste along the abscissa, finding his total waste mixture quantity along the ordinate, and plotting the point on the graph where the horizontal line drawn from his total waste mixture quantity intersects the vertical line drawn from his waste mixture's equivalent concentration. If the plotted point is in the area marked DW, he shall designate his waste as DW; if the plotted point is in the area marked EHW, he shall designate his waste as EHW.

(d) If a person knows only some of the toxic constituents in his waste mixture, or only some of the constituent concentrations, and if his waste is undesignated for those known constituents or concentrations, then his waste is not designated for toxicity under this subsection.

(e) Toxic dangerous waste mixtures graph. The toxic dangerous waste mixtures graph appears in WAC 173-303-9906.

(6) Persistence.

(a) A person whose waste mixture contains one or more halogenated hydrocarbons for which the concentrations are known shall determine his total halogenated hydrocarbon concentration by summing the concentration percentages for all of those halogenated hydrocarbons for which he knows the concentrations in his waste mixture.

Example 2. A person's waste mixture contains: Carbon tetrachloride - .009%; DDT - .012%; 1,1,1-trichloroethylene - .02%. His total halogenated hydrocarbon concentration would be:

$$\text{Total HH Concentration}(\%) = .009\% + .012\% + .02\% = .041\%$$

(b) A person whose waste mixture contains one or more polycyclic aromatic hydrocarbons with more than three rings and less than seven rings for which the concentrations are known shall determine his total polycyclic aromatic hydrocarbon concentration by summing the concentration percentages for all of those polycyclic aromatic hydrocarbons with more than three rings and less than seven rings about which he knows the concentration in his waste mixture.

Example 3. A person's waste mixture contains: Chrysene - .08%; 3, 4-benzopyrene - 1.22%. His total polycyclic aromatic hydrocarbon concentration would be:

$$\text{Total PAH Concentration}(\%) = .08\% + 1.22\% = 1.3\%$$

(c) A person whose waste mixture contains halogenated hydrocarbons shall determine his designation from the persistent dangerous waste mixtures graph in WAC 173-303-9907 by finding the total halogenated hydrocarbon concentration for his waste along the abscissa, finding his total waste mixture quantity along the ordinate, and plotting the point on the graph where the horizontal line drawn from his total waste mixture quantity intersects the vertical line drawn from his waste mixture's total halogenated hydrocarbon concentration. If the plotted point is in the area marked DW, then he shall designate his waste DW; if the plotted point is in the area marked EHW, then he shall designate his waste EHW.

(d) A person whose waste mixture contains polycyclic aromatic hydrocarbons with more than three rings and less than seven rings shall determine his designation from the persistent dangerous waste mixtures graph in WAC 173-303-9907 by finding the total polycyclic aromatic hydrocarbon concentration of his waste along the abscissa, finding his total waste mixture quantity along the ordinate, and plotting the point on the graph where the horizontal line drawn from his total waste mixture quantity intersects the vertical line drawn from his waste mixture's total polycyclic aromatic hydrocarbon concentration. If the plotted point is in the area marked EHW, then he shall designate his waste EHW. If the plotted point is outside of the area marked EHW, then his waste is not designated.

(e) If a person knows only some of the persistent constituents in his waste mixture, or only some of the constituent concentrations, and if his waste is undesignated for those known constituents or concentrations, then his waste is not designated for persistence under this subsection.

(f) Persistent dangerous waste mixtures graph. The persistent dangerous waste mixtures graph appears in WAC 173-303-9907.

(7) Carcinogens. Any person whose waste mixture contains one or more IARC human or animal, sufficient or limited carcinogen(s) shall designate his waste DW if:

(a) The total concentration of carcinogen(s) in his waste exceeds 1.0% of the waste quantity; and

(b) The monthly or batch waste quantity exceeds 220 lbs. (100 kg).

(c) For designation purposes, any IARC human or animal, sufficient or limited carcinogen that is so rated because of studies involving implantation of the substance into test animals as sole cause for the IARC rating, shall not be carcinogenic. This additional information is available in the IARC *Monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Humans*.

(8) Assigning dangerous waste numbers. A person whose waste is a dangerous waste mixture shall assign a dangerous waste number from the generic dangerous waste numbers table in WAC 173-303-104, Generic dangerous waste numbers. He shall assign the dangerous waste number from the table which corresponds to the designation for his dangerous waste.

[Statutory Authority: Chapters 70.105 and 70.105D RCW, 40 CFR Part 271.3 and RCRA § 3006 (42 U.S.C. 3251). 91-07-005 (Order 90-42), § 173-303-084, filed 3/7/91, effective 4/7/91. Statutory Authority: Chapter 70.105 RCW. 87-14-029 (Order DE-87-4), § 173-303-084, filed 6/26/87; 86-12-057 (Order DE-85-10), § 173-303-084, filed 6/3/86; 84-09-088 (Order DE 83-36), § 173-303-084, filed 4/18/84. Statutory Authority: RCW 70.95.260 and chapter 70.105 RCW. 82-05-023 (Order DE 81-33), § 173-303-084, filed 2/10/82.]

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 shall be 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 shall be 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 his 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 defined in 49 CFR 173.300 and as determined by the test methods described in that regulation; or,

(iv) It is an oxidizer as defined in 49 CFR 173.151.

(b) A solid waste that exhibits the characteristic of ignitability, but is not designated as a dangerous waste under any of the dangerous waste lists, WAC 173-303-080 through 173-303-084, or dangerous waste criteria, WAC 173-303-101 through 173-303-103, shall be designated DW, and shall be 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 5.2 in *Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods*, available from the department;

(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 Solid Waste, Physical/Chemical Methods*. The NACE Standard is available from the department; 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).

(b) A solid waste that exhibits the characteristic of corrosivity, but is not designated as a dangerous waste under any of the dangerous waste lists, WAC 173-303-080 through 173-303-084, or dangerous waste criteria, WAC 173-303-101 through 173-303-103, shall be designated DW, and shall be assigned the dangerous waste number of D002.

(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 as defined in 49 CFR 173.88.

(b) A solid waste that exhibits the characteristic of reactivity, but is not designated as a dangerous waste under any of the dangerous waste lists, WAC 173-303-080 through 173-303-084, or dangerous waste criteria, WAC 173-303-101 through 173-303-103, shall be designated DW, and shall be assigned the dangerous waste number of D003.

(8) Toxicity characteristic.

(a) A solid waste exhibits the toxicity characteristic if, using the *Toxicity Characteristic Leaching Procedure* (TCLP, found in Appendix II of 40 CFR Part 261 or available upon request from the department) or equivalent methods approved by the department under WAC 173-303-110(5), 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, is considered to be the extract for the purposes of this subsection.

(b) A solid waste that exhibits the toxicity characteristic, but is not designated as a dangerous waste under any of the dangerous waste lists, WAC 173-303-080 through 173-303-084, or dangerous waste criteria, WAC 173-303-101 through 173-303-103, has the dangerous waste number specified in the list which corresponds to the toxic contaminant causing it to be dangerous.

(c) Toxicity characteristic list. Two levels of concentration are established for the contaminants listed. Any waste containing one or more contaminants with concentrations at or above the EHW threshold shall cause that waste to be designated EHW. Any waste containing contaminants which occur at concentrations at or above the DW threshold only (i.e., no EHW contaminants), shall be designated DW.

TOXICITY CHARACTERISTICS LIST:

Maximum Concentration of Contaminants for the Toxicity Characteristic

Dangerous Waste Number	Contaminant	(Chemical Abstracts Services #)	EHW (mg/L)	DW (mg/L)
D004	Arsenic	(7440-38-2)	500	5.0
D005	Barium	(7440-39-3)	10,000	100.0
D018	Benzene	(71-43-2)	50	0.5
D006	Cadmium	(7440-43-9)	100	1.0
D019	Carbon tetrachloride	(56-23-5)	50	0.5
D020	Chlordane	(57-74-9)	3.0	0.03
D021	Chlorobenzene	(108-90-7)	10,000	100.0
D022	Chloroform	(67-66-3)	600	6.0
D007	Chromium	(7440-47-3)	500	5.0
D023	o-Cresol	(95-48-7)	/1/	
		(108-39-4)	20,000	200.0
D024	m-Cresol	/1/		
		(106-44-5)	20,000	200.0
D025	p-Cresol	/1/		
		(106-44-5)	20,000	200.0
D026	Cresol	/1/		
D016	2,4-D	(94-75-7)	1,000	10.0
D027	1,4-Dichlorobenzene	(106-46-7)	750	7.5
D028	1,2-Dichloroethane	(107-06-2)	50	0.5
D029	1,1-Dichloroethylene	(75-35-4)	70	0.7
D030	2,4-Dinitrotoluene	(121-14-2)	/2/	
		(72-20-8)	13	0.13
D012	Endrin	(72-20-8)	2	0.02
D031	Heptachlor (and its epoxide)	(76-44-8)	0.8	0.008
D032	Hexachlorobenzene	(118-74-1)	/2/	
		(87-68-3)	13	0.13
D033	Hexachlorobutadiene	(87-68-3)	50	0.5
D034	Hexachloroethane	(67-72-1)	300	3.0
D008	Lead	(7439-92-1)	500	5.0
D013	Lindane	(58-89-9)	40	0.4
D009	Mercury	(7439-97-6)	20	0.2
D014	Methoxychlor	(72-43-5)	1,000	10.0
D035	Methyl ethyl ketone	(78-93-3)	20,000	200.0
D036	Nitrobenzene	(98-95-3)	200	2.0
D037	Pentachlorophenol	(87-86-5)	10,000	100.0
D038	Pyridine	(110-86-1)	/2/	
		(7782-49-2)	500	5.0
D010	Selenium	(7782-49-2)	100	1.0
D011	Silver	(7440-22-4)	500	5.0
D039	Tetrachloroethylene	(127-18-4)	70	0.7
D015	Toxaphene	(8001-35-2)	50	0.5
D040	Trichloroethylene	(79-01-6)	50	0.5
D041	2,4,5-Trichlorophenol	(95-95-4)	40,000	400.0
D042	2,4,6-Trichlorophenol	(88-06-2)	200	2.0
D017	2,4,5-TP (Silvex)	(93-72-1)	100	1.0
D043	Vinyl chloride	(75-01-4)	20	0.2

/1/ If o-, m-, and p-Cresol concentrations cannot be differentiated, the total cresol (D026) concentration is used. The DW level for total cresol is 200 mg/L and the EHW level for total cresol is 20,000 mg/L.

/2/ Quantitation limit is greater than the calculated regulatory level. The quantitation limit therefore becomes the regulatory level.

[Statutory Authority: Chapters 70.105 and 70.105D RCW, 40 CFR Part 271.3 and RCRA § 3006 (42 U.S.C. 3251). 91-07-005 (Order 90-42), § 173-303-090, filed 3/7/91, effective 4/7/91. Statutory Authority: Chapter 70.105 RCW. 87-14-029 (Order DE-87-4), § 173-303-090, filed 6/26/87; 86-12-057 (Order DE-85-10), § 173-303-090, filed 6/3/86; 84-14-031 (Order DE 84-22), § 173-303-090, filed 6/27/84. Statutory Authority: RCW 70.95.260 and chapter 70.105 RCW. 82-05-023 (Order DE 81-33), § 173-303-090, filed 2/10/82.]

WAC 173-303-103 Carcinogenic dangerous wastes.

(1) Criteria. A substance which is listed in the National Institute for Occupational Safety and Health (NIOSH) document *Registry of Toxic Effects of Chemical Substances* (Registry), or any other scientific or technical

documents, as an IARC (International Agency for Research on Cancer) human or animal, sufficient or limited carcinogen, shall be a carcinogenic substance for the purposes of this section. Any IARC identified substance which is an inorganic, respiratory carcinogen shall be a carcinogenic substance only if it occurs in a friable format (i.e., if it is in a waste which easily crumbles and forms dust which can be inhaled).

(2) Designation. Any person whose waste contains one or more IARC carcinogen(s) shall designate his waste if:

(a) The monthly or batch waste quantity exceeds 220 lbs. (100 kg); and either

(b)(i) The concentration of any one IARC sufficient (human or animal) carcinogen exceeds 1.0% of the waste quantity. Such waste shall be designated EHW, and such designation shall take precedence over any DW designation determined by (b)(ii) or (iii) of this subsection; or

(ii) The concentration of any one IARC sufficient (human or animal) carcinogen exceeds 0.01% of the waste quantity. Such waste shall be designated DW; or

(iii) The total concentration summed for all IARC sufficient and limited (human and animal) carcinogens exceeds 1.0% of the waste quantity. Such waste shall be designated DW.

(c) For designation purposes, any IARC human or animal, sufficient or limited carcinogen that is so rated because of studies involving implantation of the substance into test animals as sole cause for the IARC rating, shall not be carcinogenic. This additional information is available in the IARC *Monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Humans*.

[Statutory Authority: Chapters 70.105 and 70.105D RCW, 40 CFR Part 271.3 and RCRA § 3006 (42 U.S.C. 3251). 91-07-005 (Order 90-42), § 173-303-103, filed 3/7/91, effective 4/7/91. Statutory Authority: Chapter 70.105 RCW. 87-14-029 (Order DE-87-4), § 173-303-103, filed 6/26/87; 84-14-031 (Order DE 84-22), § 173-303-103, filed 6/27/84. Statutory Authority: RCW 70.95.260 and chapter 70.105 RCW. 82-05-023 (Order DE 81-33), § 173-303-103, filed 2/10/82.]

WAC 173-303-110 Sampling and testing methods.

(1) Purpose. This section describes the testing methods which may be used in the process of designating a dangerous waste.

(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, 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 D1452-65;

(v) Soil or rock-like material – ASTM Standard D420-69;

(vi) Containerized liquid wastes – "COLIWASA" 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); 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).

(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 from the department by writing to the appropriate address below:

For copies of WDOE test methods:

Attn: Test Procedures
Hazardous Waste Section, PV-11
Department of Ecology
Olympia, Washington 98504

For copies of SW 846:

Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20401

For copies of ASTM methods:

ASTM
1916 Race Street
Philadelphia, PA 19103

The document titles and included test procedures are as follows:

(a) *Chemical Testing Methods for Complying with the Dangerous Waste Regulation*, March 1982, revised July 1983, 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) EP Toxicity;

(v) Halogenated hydrocarbons; and

(vi) Polycyclic aromatic hydrocarbons;

(b) *Biological Testing Methods*, 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 (the most recent edition and all updates) is adopted by reference. This includes:

(i) Method 9095 (Paint Filter Liquids Test), demonstrating the absence or presence of free liquids in either a containerized or bulk waste;

(ii) Reserved;

(d) 40 CFR Part 261 Appendix X is adopted by reference for the purpose of analysis for chlorinated dibenzo-p-dioxins and dibenzofurans;

(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.

(4) Substantial changes to the testing methods described above shall 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.

[Statutory Authority: Chapters 70.105 and 70.105D RCW, 40 CFR Part 271.3 and RCRA § 3006 (42 U.S.C. 3251). 91-07-005 (Order 90-42), § 173-303-110, filed 3/7/91, effective 4/7/91. Statutory Authority: Chapter 70.105 RCW. 89-02-059 (Order 88-24), § 173-303-110, filed 1/4/89; 86-12-057 (Order DE-85-10), § 173-303-110, filed 6/3/86; 84-14-031 (Order DE 84-22), § 173-303-110, filed 6/27/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-110, filed 2/10/82.]

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;
- (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, except when such use is by the generator on his own property;
- (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;

(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;

(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); and

(ix) Petroleum coke produced from petroleum refinery dangerous wastes containing oil at the same facility at which such wastes were generated, 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) 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);

(d) 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 173-303-084 or 173-303-101 through 173-303-103; or

(iii) Is designated solely as W001, (see WAC 173-303-515);

(e) Spent lead-acid batteries that are being reclaimed (see WAC 173-303-520);

(f) Recyclable materials from which precious metals are reclaimed (see WAC 173-303-525).

(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 shall 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 regulation 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 173-303-283 through 173-303-290,

(iii) WAC 173-303-310 through 173-303-395,

(iv) WAC 173-303-630 (2) through (10), and

(v) 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;

(vi) 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 173-303-420,

(C) WAC 173-303-800 through 173-303-840;

(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.

[Statutory Authority: Chapters 70.105 and 70.105D RCW, 40 CFR Part 271.3 and RCRA § 3006 (42 U.S.C. 3251). 91-07-005 (Order 90-42), § 173-303-120, filed 3/7/91, effective 4/7/91. Statutory Authority: Chapter 70.105 RCW. 88-18-083 (Order 88-29), § 173-303-120, filed 9/6/88; 88-07-039 (Order 87-37), § 173-303-120, filed 3/11/88; 87-14-029 (Order DE-87-4), § 173-303-120, filed 6/26/87; 86-12-057 (Order DE-85-10), § 173-303-120, filed 6/3/86; 84-14-031 (Order DE 84-22), § 173-303-120, filed 6/27/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-120, filed 2/10/82.]

WAC 173-303-145 Spills and discharges. (1) Purpose and applicability. This section sets forth the requirements for any person responsible for a spill or discharge, 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 shall apply when any dangerous waste or hazardous substance is intentionally or accidentally spilled or discharged (unless otherwise permitted), regardless of the quantity of dangerous waste or hazardous substance.

(2) Notification. Any person who is responsible for a nonpermitted spill or discharge shall 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.

(c) Notify the appropriate regional office of the department of ecology in the following circumstances:

(i) For spills or discharges occurring outside of secondary containment meeting the requirements of this chapter, regardless of quantity; and

(ii) For spills or discharges occurring and contained in secondary containment meeting the requirements of this chapter, if the quantity of dangerous waste or hazardous substance meets or exceeds ten gallons.

(d) In lieu of notification under (c) of this subsection, for spills or discharges below ten gallons occurring and contained in secondary containment meeting the requirements of this chapter, a brief account must immediately be entered into the operating record, for a TSD facility, or into the inspection log or separate spill log, for a generator. This account must include: The time and date of the spill; the location and cause of the spill; the type and quantity of material spilled; and a brief description of any response actions taken or planned.

(3) Mitigation and control. The person responsible for a nonpermitted spill or discharge shall 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 department may require the person responsible for a spill or discharge to:

(i) Clean up all released dangerous wastes or hazardous substances, or to 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) Where immediate removal or temporary storage of spilled or discharged dangerous wastes or hazardous substances is necessary to protect human health or the environment, the department may direct that removal be accomplished without a manifest, by transporters who do not have EPA/state identification numbers.

(4) Nothing in WAC 173-303-145 shall eliminate any obligations to comply with reporting requirements which may exist in a permit or under other state or federal regulations.

[Statutory Authority: Chapters 70.105 and 70.105D RCW, 40 CFR Part 271.3 and RCRA § 3006 (42 U.S.C. 3251). 91-07-005 (Order 90-42), § 173-303-145, filed 3/7/91, effective 4/7/91. Statutory Authority: Chapter 70.105 RCW. 84-09-088 (Order DE 83-36), § 173-303-145, filed 4/18/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-145, filed 2/10/82.]

WAC 173-303-160 Containers. (1) Waste quantity. Containers and inner liners shall 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, whichever quantity is least, either less 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 one 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, 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 shall be ten percent or more of the container's or inner liner's capacity. 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.

Any rinsate or vacuumed residue which results from the cleaning of containers or inner liners shall 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 shall 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 shall be checked against the designation requirements (WAC 173-303-070 through 173-303-103) and, if designated, managed according to the requirements of this chapter.

(3) 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.

(4) A person may petition the department to approve alternative container rinsing processes in accordance with WAC 173-303-910(1).

[Statutory Authority: Chapters 70.105 and 70.105D RCW, 40 CFR Part 271.3 and RCRA § 3006 (42 U.S.C. 3251), 91-07-005 (Order 90-42), § 173-303-160, filed 3/7/91, effective 4/7/91. Statutory Authority: Chapter 70.105 RCW, 86-12-057 (Order DE-85-10), § 173-303-160, filed 6/3/86; 84-09-088 (Order DE 83-36), § 173-303-160, filed 4/18/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260, 82-05-023 (Order DE 81-33), § 173-303-160, filed 2/10/82. Formerly WAC 173-302-140.]

WAC 173-303-200 Accumulating dangerous waste on-site. (1) A generator, not to include transporters as referenced in WAC 173-303-240(3), may accumulate dangerous waste on-site without a permit for ninety days or less after the date of generation, provided that:

(a) All such waste is shipped off-site to a designated facility or placed in an on-site facility which is permitted by the department under WAC 173-303-800 through 173-303-845 in ninety days or less. The department may, on a case-by-case basis, grant a maximum thirty day extension to this ninety day period if dangerous wastes must remain on-site due to unforeseen, temporary and uncontrollable circumstances. A generator who accumulates dangerous waste for more than ninety days is an operator of a storage facility and is subject to the facility requirements of this chapter and the permit requirements of this chapter as a storage facility unless he has been granted an extension to the ninety day period allowed pursuant to this subsection;

(b) The waste is placed in containers and the generator complies with WAC 173-303-630 (2), (3), (4), (5), (6), (8), and (9), or the waste is placed in tanks and the generator complies with WAC 173-303-640 (2) through (10), except WAC 173-303-640 (8)(c) and the second sentence of WAC 173-303-640 (8)(a). (Note: A generator, 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 "sufficient freeboard" requirement of WAC 173-303-

640 (5)(b)(iii) for uncovered tanks, the generator must maintain a minimum freeboard of two feet. Such a generator is exempt from the requirements of WAC 173-303-620 and 173-303-610, except for WAC 173-303-610 (2) and (5). For container accumulation (including satellite areas as described in subsection (2)(c) of this section), the department may require that the accumulation 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 accumulated, or due to a history of spills or releases from accumulated containers. In addition, any new container accumulation areas (but not including new satellite areas, unless required by the department) constructed or installed after September 30, 1986, must comply with the provisions of WAC 173-303-630(7);

(c) The date upon which each period of accumulation begins is marked and clearly visible for inspection on each container;

(d) While being accumulated 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); and

(e) The generator complies with the requirements for facility operators contained in WAC 173-303-330 through 173-303-360 (personnel training, preparedness and prevention, contingency plan and emergency procedures, and emergencies), and WAC 173-303-320 (1), (2)(a), (b), (d), and (3) (general inspection).

(2) For the purposes of this section, the ninety-day accumulation period begins on the date that:

(a) The generator first generates a dangerous waste; or

(b) The quantity (or aggregated quantity) of dangerous waste being accumulated by a small quantity generator first exceeds the quantity exclusion limit for such waste (or wastes); or

(c) The quantity of dangerous waste being accumulated in containers in a satellite area exceeds fifty-five gallons of dangerous waste or one quart of acutely hazardous waste (see WAC 173-303-040). For the purposes of this section, a satellite area shall be a location at or near any point of generation where wastes initially accumulate, which is under the control of the operator of the process generating the waste.

[Statutory Authority: Chapters 70.105 and 70.105D RCW, 40 CFR Part 271.3 and RCRA § 3006 (42 U.S.C. 3251), 91-07-005 (Order 90-42), § 173-303-200, filed 3/7/91, effective 4/7/91. Statutory Authority: Chapter 70.105 RCW, 89-02-059 (Order 88-24), § 173-303-200, filed 1/4/89; 86-12-057 (Order DE-85-10), § 173-303-200, filed 6/3/86; 84-14-031 (Order DE 84-22), § 173-303-200, filed 6/27/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260, 82-05-023 (Order DE 81-33), § 173-303-200, filed 2/10/82.]

WAC 173-303-201 Special accumulation standards.

(1) This section applies to persons who generate less than 2200 pounds (1000 kg) per month and do not accumulate on-site more than 2200 pounds (1000 kg) of dangerous waste. The special provisions of this section do not apply to any acutely hazardous wastes (as defined in WAC 173-303-040) 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); and

(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.

[Statutory Authority: Chapters 70.105 and 70.105D RCW, 40 CFR Part 271.3 and RCRA § 3006 (42 U.S.C. 3251), 91-07-005 (Order 90-42), § 173-303-201, filed 3/7/91, effective 4/7/91. Statutory Authority: Chapter 70.105 RCW, 87-14-029 (Order DE-87-4), § 173-303-201, filed 6/26/87; 86-12-057 (Order DE-85-10), § 173-303-201, filed 6/3/86.]

WAC 173-303-210 Generator recordkeeping. (1)

The generator shall 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 shall be retained for at least five years from the date the waste was accepted by the initial transporter.

(2) The generator shall 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 shall keep a copy of his most recent notification (Form 2) until he is no longer defined as a generator under this chapter.

(3) The generator shall 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.

(4) Any other records required for generators accumulating wastes on-site as described in WAC 173-303-170 (4)(b) or 173-303-200 must be retained for at least five years, including, but not limited to such items as inspection logs and operating records.

(5) The periods of retention for any records described in this section shall 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, shall be made available and furnished upon request by the director.

[Statutory Authority: Chapters 70.105 and 70.105D RCW, 40 CFR Part 271.3 and RCRA § 3006 (42 U.S.C. 3251), 91-07-005 (Order 90-42), § 173-303-210, filed 3/7/91, effective 4/7/91. Statutory Authority: Chapter 70.105 RCW, 86-12-057 (Order DE-85-10), § 173-303-210, filed 6/3/86; 84-09-088 (Order DE 83-36), § 173-303-210, filed 4/18/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260, 82-05-023 (Order DE 81-33), § 173-303-210, filed 2/10/82.]

WAC 173-303-220 Generator reporting. The generator shall submit the following reports to the department by the specified due date for each report, or within the time period allowed for each report.

(1) Annual reports.

(a) A generator or any person who has obtained an EPA/state identification number pursuant to WAC 173-303-060 shall submit an annual report to the department, on the Generator Annual Dangerous Waste Report - Form 4 according to the instructions on the form (copies are available from the department), no later than March 1 for the preceding calendar year.

(b) In addition, any generator who stores, treats, or disposes of dangerous waste on-site shall comply with the annual reporting requirements of WAC 173-303-390, Facility reporting.

(2) Exception reports.

(a) A generator who does not receive a copy of the manifest with the handwritten signature of the owner/operator of the designated facility within thirty-five days of the date the waste was accepted by the initial transporter must contact the transporter(s) and/or facility to determine the status of the dangerous waste shipment.

(b) A generator must submit an exception report to the department if he has not received a copy of the manifest with the handwritten signature of the owner/operator of the designated facility within forty-five days of the date the waste was accepted by the initial transporter.

(c) The exception report must include:

(i) A legible copy of the manifest for which the generator does not have confirmation of delivery; and

(ii) A cover letter signed by the generator or his representative explaining the efforts taken to locate the waste and the results of those efforts.

(d) The department may require a generator to submit exception reports in less than forty-five days if it finds that the generator frequently or persistently endangers public health or the environment through improper waste shipment practices.

(3) Additional reports. The director, as he deems necessary under chapter 70.105 RCW, may require a generator to furnish additional reports (including engineering reports, plans, and specifications) concerning the quantities and disposition of the generator's dangerous waste.

[Statutory Authority: Chapters 70.105 and 70.105D RCW, 40 CFR Part 271.3 and RCRA § 3006 (42 U.S.C. 3251), 91-07-005 (Order 90-42), § 173-303-220, filed 3/7/91, effective 4/7/91. Statutory Authority: Chapter 70.105 RCW, 87-14-029 (Order DE-87-4), § 173-303-220, filed 6/26/87; 86-12-057 (Order DE-85-10), § 173-303-220, filed 6/3/86; 84-09-088 (Order DE 83-36), § 173-303-220, filed 4/18/84. Statutory Authority: RCW 70.95.260 and chapter 70.105 RCW, 82-05-023 (Order DE 81-33), § 173-303-220, filed 2/10/82.]

WAC 173-303-230 Special conditions. (1) Exporting dangerous waste.

Federal export requirements, administered by EPA, are set forth in 40 CFR 262 Subpart E and specify the procedures applicable to generators of hazardous waste

(as defined in WAC 173-303-040). Copies of any forms or reports submitted to the administrator of United States EPA as required by 40 CFR 262 Subpart E shall 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 shall 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 shall be used; and

(b) In place of the generator's signature on the certification statement, the United States importer or his agent shall sign and date the certification and obtain the signature of the initial transporter.

(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 shall 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 shall handle the rinsate according to this chapter, and according to chapter 90.48 RCW, Water pollution control.

[Statutory Authority: Chapters 70.105 and 70.105D RCW, 40 CFR Part 271.3 and RCRA § 3006 (42 U.S.C. 3251), 91-07-005 (Order 90-42), § 173-303-230, filed 3/7/91, effective 4/7/91. Statutory Authority: Chapter 70.105 RCW, 87-14-029 (Order DE-87-4), § 173-303-230, filed 6/26/87; 86-12-057 (Order DE-85-10), § 173-303-230, filed 6/3/86; 84-09-088 (Order DE 83-36), § 173-303-230, filed 4/18/84. Statutory Authority: RCW 70.95.260 and chapter 70.105 RCW, 82-05-023 (Order DE 81-33), § 173-303-230, filed 2/10/82.]

WAC 173-303-320 General inspection. (1) The owner or operator shall inspect his facility to prevent malfunctions and deterioration, operator errors, and discharges which may cause or lead to the release of dangerous waste constituents to the environment, or a threat to human health. The owner or operator must conduct these inspections often enough to identify problems in time to correct them before they harm human health or the environment.

(2) The owner or operator shall develop and follow a written schedule for inspecting all monitoring equipment, safety and emergency equipment, security devices,

and operating and structural equipment that help prevent, detect, or respond to hazards to the public health or the environment. In addition:

- (a) He must keep the schedule at the facility;
- (b) The schedule must identify the types of problems which are to be looked for during inspections;
- (c) The schedule shall indicate the frequency of inspection for specific items. The frequency should be based on the rate of possible deterioration of equipment, and the probability of an environmental or human health incident. Areas subject to spills must be inspected daily when in use. The inspection schedule shall also include the applicable items and frequencies required for the specific waste management methods described in 40 CFR Part 265 Subparts F through R for interim status facilities and in WAC 173-303-630 through 173-303-680 for final status facilities; and

(d) The owner or operator shall keep an inspection log or summary, including at least the date and time of the inspection, the printed name and the handwritten signature of the inspector, a notation of the observations made, an account of spills or discharges in accordance with WAC 173-303-145, and the date and nature of any repairs or remedial actions taken. The log or summary must be kept at the facility for at least five years from the date of inspection.

(3) The owner or operator shall remedy any problems revealed by the inspection, on a schedule which prevents hazards to the public health and environment. Where a hazard is imminent or has already occurred, remedial action must be taken immediately.

[Statutory Authority: Chapters 70.105 and 70.105D RCW, 40 CFR Part 271.3 and RCRA § 3006 (42 U.S.C. 3251). 91-07-005 (Order 90-42), § 173-303-320, filed 3/7/91, effective 4/7/91. Statutory Authority: Chapter 70.105 RCW, 84-09-088 (Order DE 83-36), § 173-303-320, filed 4/18/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260, 82-05-023 (Order DE 81-33), § 173-303-320, filed 2/10/82.]

WAC 173-303-360 Emergencies. (1) Emergency coordinator. At all times, there must be at least one employee either on the facility premises or on call with the responsibility for coordinating all emergency response measures. This emergency coordinator must be thoroughly familiar with all aspects of the facility's contingency plan, required by WAC 173-303-350(2), all operations and activities at the facility, the location and properties of all wastes handled, the location of all records within the facility, and the facility layout. In addition, this person must have the authority to commit the resources needed to carry out the contingency plan.

(2) Emergency procedures. The following procedures shall be implemented in the event of an emergency.

(a) Whenever there is an imminent or actual emergency situation, the emergency coordinator (or his designee when the emergency coordinator is on call) must immediately:

- (i) Activate internal facility alarms or communication systems, where applicable, to notify all facility personnel; and
- (ii) Notify appropriate state or local agencies with designated response roles if their help is needed.

(b) Whenever there is a release, fire, or explosion, the emergency coordinator must immediately identify the character, exact source, amount, and areal extent of any released materials.

(c) Concurrently, the emergency coordinator shall assess possible hazards to human health and the environment (considering direct, indirect, immediate, and long-term effects) that may result from the release, fire, or explosion.

(d) If the emergency coordinator determines that the facility has had a release, fire, or explosion which could threaten human health or the environment, he must report his findings as follows:

(i) If his assessment indicates that evacuation of local areas may be advisable, he must immediately notify appropriate local authorities. He must be available to help appropriate officials decide whether local areas should be evacuated; and

(ii) He must immediately notify the department and either the government official designated as the on-scene coordinator, or the National Response Center (using their 24-hour toll free number (800) 424-8802).

(e) His assessment report must include:

- (i) Name and telephone number of reporter;
- (ii) Name and address of facility;
- (iii) Time and type of incident (e.g., release, fire);
- (iv) Name and quantity of material(s) involved, to the extent known;
- (v) The extent of injuries, if any; and
- (vi) The possible hazards to human health or the environment outside the facility.

(f) During an emergency, the emergency coordinator must take all reasonable measures necessary to ensure that fires, explosions, and releases do not occur, recur, or spread to other dangerous waste at the facility. These measures must include, where applicable, stopping processes and operations, collecting and containing released waste, and removing or isolating containers.

(g) If the facility stops operations in response to a fire, explosion, or release, the emergency coordinator must monitor for leaks, pressure buildup, gas generation, or ruptures in valves, pipes, or other equipment, wherever this is appropriate.

(h) Immediately after an emergency, the emergency coordinator must provide for treating, storing, or disposing of recovered waste, contaminated soil or surface water, or any other material that results from a release, fire, or explosion at the facility.

(i) The emergency coordinator must ensure that, in the affected area(s) of the facility:

(i) No waste that may be incompatible with the released material is treated, stored, or disposed of until cleanup procedures are completed; and

(ii) All emergency equipment listed in the contingency plan is cleaned and fit for its intended use before operations are resumed.

(j) The owner or operator must notify the department, and appropriate local authorities, that the facility is in compliance with (i) of this subsection before operations are resumed in the affected area(s) of the facility.

(k) The owner or operator must note in the operating record the time, date, and details of any incident that requires implementing the contingency plan. Within fifteen days after the incident, he must submit a written report on the incident to the department. The report must include:

- (i) Name, address, and telephone number of the owner or operator;
- (ii) Name, address, and telephone number of the facility;
- (iii) Date, time, and type of incident (e.g., fire, explosion);
- (iv) Name and quantity of material(s) involved;
- (v) The extent of injuries, if any;
- (vi) An assessment of actual or potential hazards to human health or the environment, where this is applicable;
- (vii) Estimated quantity and disposition of recovered material that resulted from the incident;
- (viii) Cause of incident; and
- (ix) Description of corrective action taken to prevent reoccurrence of the incident.

[Statutory Authority: Chapters 70.105 and 70.105D RCW, 40 CFR Part 271.3 and RCRA § 3006 (42 U.S.C. 3251), 91-07-005 (Order 90-42), § 173-303-360, filed 3/7/91, effective 4/7/91. Statutory Authority: Chapter 70.105 RCW, 87-14-029 (Order DE-87-4), § 173-303-360, filed 6/26/87; 86-12-057 (Order DE-85-10), § 173-303-360, filed 6/3/86; 84-09-088 (Order DE 83-36), § 173-303-360, filed 4/18/84. Statutory Authority: RCW 70.95.260 and chapter 70.105 RCW, 82-05-023 (Order DE 81-33), § 173-303-360, filed 2/10/82. Formerly chapter 173-302 WAC.]

WAC 173-303-380 Facility recordkeeping. (1) Operating record. The owner or operator of a facility shall keep a written operating record at his facility. The following information shall 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 required by WAC 173-303-300, General waste analysis;
- (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 for interim status facilities, and by

WAC 173-303-630 through 173-303-680 for final status facilities;

(g) All closure and post-closure cost estimates required for the facility; and

(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.

(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 shall be kept in the operating record, as follows:

(a) Each dangerous waste received or managed shall be described by its common name and by its dangerous waste number(s) from WAC 173-303-080 through 173-303-104. 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 shall include the process which generated the waste;

(b) The waste description shall include the waste's physical form (i.e., liquid, solid, sludge, or gas);

(c) The weight, or volume and density, of the dangerous waste shall be recorded, using one of the units of measure specified in Table 1, below;

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

(d) And, the date(s) and method(s) of management for each dangerous waste received or managed (treated, recycled, stored, or disposed of) shall be recorded, using the handling code(s) specified in Table 2, below.

TABLE 2

- 1. Storage
 - S01 Container (barrel, drum, etc.)
 - S02 Tank
 - S03 Waste pile
 - S04 Surface impoundment
 - S05 Other (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)

3. Disposal

- D80 Underground injection
- D81 Landfill
- D82 Land treatment
- D83 Ocean disposal
- D84 Surface impoundment
(to be closed as a landfill)
- D85 Other (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.

[Statutory Authority: Chapters 70.105 and 70.105D RCW, 40 CFR Part 271.3 and RCRA § 3006 (42 U.S.C. 3251). 91-07-005 (Order 90-42), § 173-303-380, filed 3/7/91, effective 4/7/91. Statutory Authority: Chapter 70.105 RCW, 86-12-057 (Order DE-85-10), § 173-303-380, filed 6/3/86; 84-09-088 (Order DE 83-36), § 173-303-380, filed 4/18/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260, 82-05-023 (Order DE 81-33), § 173-303-380, filed 2/10/82. Formerly chapter 173-302 WAC.]

WAC 173-303-390 Facility reporting. The owner or operator of a facility is responsible for preparing and submitting the reports described in this section.

(1) Unmanifested waste reports. If a facility accepts any dangerous waste from an off-site source without an accompanying manifest or shipping paper, and if the waste is not excluded from the manifest requirements of this chapter 173-303 WAC, then the owner or operator must prepare and submit a single copy of a report to the department within fifteen days after receiving the waste. The report form and instructions in the Unmanifested Dangerous Waste Report - Form 6 (which may be obtained from the department) must be used for this report. The report must include at least the following information:

(a) The EPA/state identification number, name, and address of the facility;

(b) The date the facility received the waste;

(c) The EPA/state identification number, name, and address of the generator and the transporter, if available;

(d) A description and the quantity of each unmanifested dangerous waste the facility received;

(e) The method of management for each dangerous waste;

(f) The certification signed by the owner or operator of the facility or his authorized representative; and

(g) A brief explanation of why the waste was unmanifested, if known.

(2) Annual reports. The owner or operator of a facility that holds an active EPA/state identification number shall prepare and submit a single copy of an annual report to the department by March 1 of each year. The report form and instructions in the TSD Facility Annual Dangerous Waste Report - Form 5 (which may be obtained from the department) must be used for this report. In addition, any facility which ships dangerous waste off-site must comply with the annual reporting requirements of WAC 173-303-220. The annual report must cover facility activities during the previous calendar year and must include, but is not limited to the following information:

(a) The EPA/state identification number, name, and address of the facility;

(b) The calendar year covered by the report;

(c) For off-site facilities, the EPA/state identification number of each dangerous waste generator from which the facility received a dangerous waste during the year. For imported shipments, the report must give the name and address of the foreign generator;

(d) A description and the quantity of each dangerous waste the facility received during the year. For off-site facilities, this information must be listed by EPA/state identification number of each generator;

(e) The method of treatment, storage, or disposal for each dangerous waste;

(f) The most recent closure cost estimate under WAC 173-303-620(3) (or 40 CFR 265.142 for interim status facilities), and for disposal facilities, the most recent post-closure cost estimate under WAC 173-303-620(5) (or 40 CFR 265.144 for interim status facilities); and

(g) The certification signed in accordance with the requirements of WAC 173-303-810(12).

(3) Additional reports. The owner or operator shall also report to the department releases of dangerous wastes, fires, and explosions as specified in WAC 173-303-360 (2)(k) and interim status groundwater monitoring data, as specified in 40 CFR 265.94 (a)(2) and (b)(2).

In addition, the owner or operator shall submit any other reports (including engineering reports, plans, and specifications) required by the department.

[Statutory Authority: Chapters 70.105 and 70.105D RCW, 40 CFR Part 271.3 and RCRA § 3006 (42 U.S.C. 3251), 91-07-005 (Order 90-42), § 173-303-390, filed 3/7/91, effective 4/7/91. Statutory Authority: Chapter 70.105 RCW, 86-12-057 (Order DE-85-10), § 173-303-390, filed 6/3/86; 84-09-088 (Order DE 83-36), § 173-303-390, filed 4/18/84. Statutory Authority: Chapter 70.105 RCW and RCW

70.95.260, 82-05-023 (Order DE 81-33), § 173-303-390, filed 2/10/82.]

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 shall apply 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 shall 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 shall 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(7).

(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) Persons disposing of dangerous waste by underground injection which is permitted under the Safe Drinking Water Act;

(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; and

(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 and the generator complies with WAC 173-303-200 (1)(b) and 173-303-395 (1)(a) and (b).

(d) The owner or operator of an interim status facility which manages special waste may comply with the special requirements selected under WAC 173-303-550 through 173-303-560 in lieu of the interim status facility standards of this section, but only for those special wastes which he manages and only after the owner or operator has requested and the department has issued a notice of interim status modification.

(3) Standards.

(a) Interim status standards shall be standards set forth by the Environmental Protection Agency in 40 CFR Part 265 Subparts F through R 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 and the facility requirements of WAC 173-303-280 through 173-303-440;

(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 to the state of Washington facilities, the federal terms shall have (and in the case of the wording used in the financial instruments referenced in Subpart H of Part 265, shall be replaced with) the following state of Washington meanings:

(i) "Regional administrator" shall mean the "department";

(ii) "Hazardous" shall mean "dangerous"; and

(iii) "Compliance procedure" shall have the meaning set forth in WAC 173-303-040, Definitions.

(c) In addition to the changes described in (b) of this subsection, the following modifications shall be made to interim status standards of 40 CFR Part 265 Subparts F through R:

(i) The words "the effective date of these regulations" shall mean:

(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 shall be 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 173-303-103 and not designated by 40 CFR Part 261;

(D) For wastes which become designated only by WAC 173-303-080 through 173-303-103 and not designated by 40 CFR Part 261 subsequent to March 12, 1982, the effective date shall be the date on which the wastes become regulated.

(ii) "Subpart N - landfills" shall have an additional section added which reads: "An owner/operator shall not landfill an organic carcinogen or an EHW, as defined by WAC 173-303-080 to 173-303-103, except at the EHW facility at Hanford";

(iii) "Subpart R - underground injection" shall have 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 173-303-103";

(iv) "Subpart M - land treatment," section 265.273(b) shall be 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) shall include the requirement that: "Groundwater monitoring wells shall 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" shall have 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"; and

(vii) "Subpart J - tank systems" section 265.193(a) shall be 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) shall be 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 shall be 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...."

[Statutory Authority: Chapters 70.105 and 70.105D RCW, 40 CFR Part 271.3 and RCRA § 3006 (42 U.S.C. 3251). 91-07-005 (Order 90-42), § 173-303-400, filed 3/7/91, effective 4/7/91. Statutory Authority: Chapter 70.105 RCW. 89-02-059 (Order 88-24), § 173-303-400, filed 1/4/89; 88-02-057 (Order DE 83-36), § 173-303-400, filed 1/5/88, effective 2/5/88; 87-14-029 (Order DE-87-4), § 173-303-400, filed 6/26/87; 86-12-057 (Order DE-85-10), § 173-303-400, filed 6/3/86; 84-09-088 (Order DE 83-36), § 173-303-400, filed 4/18/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-400, filed 2/10/82.]

WAC 173-303-500 Recycling requirements for state-only dangerous waste. (1) Applicability. This section applies to the recycling of state-only dangerous waste that are not regulated as hazardous wastes (defined in WAC 173-303-040) by EPA.

(2) Standards.

(a) If state-only dangerous wastes are recycled in any of the ways described in WAC 173-303-505 through 173-303-525, then such recycling is subject to the respective requirements of WAC 173-303-505 through 173-303-525, except as provided in (c) of this subsection.

(b) If state-only dangerous wastes are recycled in any way not specifically described in WAC 173-303-505 through 173-303-525, then such recycling is subject to the requirements of WAC 173-303-120(4), except as provided in (c) of this subsection.

(c) Recyclers who receive state-only dangerous wastes from off-site and who store the wastes in containers or tanks may, in lieu of the provisions for storing dangerous wastes prior to recycling, comply with:

(i) WAC 173-303-060;

(ii) WAC 173-303-370 (if the dangerous waste received must be accompanied by a manifest); and

(iii) The following requirements, provided that the dangerous waste is recycled within ninety days of the date it is received by the recycler:

(A) WAC 173-303-330 through 173-303-360;

(B) WAC 173-303-630 (2), (3), (4), (5), (6), (8) and (9), for containers;

(C) WAC 173-303-640 (3), (4), (5), (6) and (7), for tanks; and

(D) WAC 173-303-630(7) for new container areas installed after September 30, 1986, and WAC 173-303-640(2) for new tanks installed after September 30, 1986.

(d) The department may require a recycler who is storing his waste under the provisions of (c) of this subsection to comply with the provisions for storing dangerous waste prior to recycling specified in WAC 173-303-505 through 173-303-525 and 173-303-120(4) if:

(i) The recycler fails to comply with the requirements of (c) of this subsection; or

(ii) The department determines, on a case-by-case basis, that the requirements of (c) of this subsection do not adequately protect public health or the environment.

(3) Relief from standards. The owner/operator of a facility recycling dangerous wastes under the provisions of this section may ask the department to provide relief from any of the applicable requirements of this section. Requests for relief must be submitted as described in (a) of this subsection. Requests for relief will be approved or denied as described in (b) of this subsection.

(a) A request for relief must be submitted by the recycler to the department in writing and must describe the standards from which the recycler is seeking relief. The request must include:

(i) The facility name, EPA/state identification number, address, telephone number, and a contact person at the facility;

(ii) The waste(s) managed at the facility and the type(s) recycling;

(iii) The specific standards from which the owner/operator seeks relief;

(iv) A description, for each standard, demonstrating:

(A) Why the owner/operator believes the standard to be unnecessary;

(B) How public health and the environment will continue to be protected if the standard is not applied to the facility; and

(C) Any evidence supporting the contention that public health and the environment will be adequately protected if the standard is not applied (e.g., test data, diagrams, experiences at similar facilities, records, reports, etc.); and

(v) The following certification, signed and dated by a person who would be authorized to sign a report under WAC 173-303-810 (12)(b):

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this request and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the 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."

The department may ask for any additional information it deems necessary, and will not consider approval of the owner's/operator's request until all necessary information has been submitted. Failure to provide any of the information required may result in the department's denying the owner's/operator's request.

(b) The department will review any requests submitted pursuant to (a) of this subsection, and based on the adequacy of the information provided in the request will approve or deny all or any part of the request. The department will notify the recycler of its decision in writing. If the department decides to approve all or part of the request and the recycler agrees with the department's decision, then the department will proceed to grant the approval as described below. No approval shall be effective until the procedures described below have been completed.

(i) For facilities which are required to have a final facility permit, the department shall follow the procedures for issuing (or, for facilities which already have a final facility permit, the procedures for modifying) a final facility permit, as described in WAC 173-303-806. The new or modified final facility permit shall include the standards the owner/operator must meet.

(ii) For all other types of recycling facilities, the department shall issue a notice of modification stating what standards will be applied. Before issuing the notice of modification, the department shall provide public notice of its intent, shall allow thirty days for public comment, and shall hold a public hearing if there is a significant degree of public interest or there is written notice of opposition and the department receives a request for a hearing during the comment period. Notice of a public hearing shall be provided at least fifteen days in advance, and the public comment period shall be extended to include the date of the hearing if it will occur

after the initial thirty-day comment period. Within fifteen days of the end of the public comment period the department shall, based on comments received, issue, modify and issue, or deny the notice of modification.

(c) Failure to comply with the conditions and standards as stated in the permit or notice of modification issued under (b) of this subsection shall form a basis for modifying or revoking the permit or notice of modification.

[Statutory Authority: Chapters 70.105 and 70.105D RCW, 40 CFR Part 271.3 and RCRA § 3006 (42 U.S.C. 3251), 91-07-005 (Order 90-42), § 173-303-500, filed 3/7/91, effective 4/7/91. Statutory Authority: Chapter 70.105 RCW, 86-12-057 (Order DE-85-10), § 173-303-500, filed 6/3/86; 84-14-031 (Order DE 84-22), § 173-303-500, filed 6/27/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260, 82-05-023 (Order DE 81-33), § 173-303-500, filed 2/10/82.]

WAC 173-303-510 Special requirements for dangerous wastes burned for energy recovery. (1) Applicability.

(a) This section applies to dangerous wastes that are burned for energy recovery in any boiler or industrial furnace that is not regulated under Subpart O of 40 CFR Part 265 or WAC 173-303-670, except as provided by (b) of this subsection. Such dangerous wastes burned for energy recovery are termed "dangerous waste fuel." Fuel produced from dangerous waste by processing, blending, or other treatment is also dangerous waste fuel. (These regulations do not apply, however, to gas recovered from dangerous waste management activities when such gas is burned for energy recovery.)

(b) The following dangerous wastes are not subject to regulation under this section:

(i) Used oil burned for energy recovery if it is a dangerous waste because it:

(A) Exhibits a characteristic of dangerous waste identified in WAC 173-303-090; or

(B) Is designated as DW only through the criteria of WAC 173-303-101 through 173-303-103; or

(C) Is a dangerous waste designated solely as W001.

Such used oil is subject to regulation under WAC 173-303-515 rather than this section.

Note: Used oil burned for energy recovery containing a listed waste (unless such listed waste is only state source W001) or a waste designated as EHW through the criteria of WAC 173-303-101 through 173-303-103 is subject to this section.

(ii) (Reserved.)

(2) Prohibitions.

(a) A person may market dangerous waste fuel only:

(i) To persons who have notified the department of their dangerous waste fuel activities under WAC 173-303-060 and have an EPA/state identification number; and

(ii) If the fuel is burned, to persons who burn the fuel in boilers or industrial furnaces identified in (b) of this subsection.

(b) Dangerous waste fuel may be burned for energy recovery in only the following devices;

(i) Industrial furnaces identified in WAC 173-303-040;

(ii) Boilers, as defined in WAC 173-303-040, that are identified as follows:

(A) Industrial boilers located on the site of a facility engaged in a manufacturing process where substances are transformed into new products, including the component parts of products, by mechanical or chemical processes; or

(B) Utility boilers used to produce electric power, steam, or heated or cooled air or other gases or fluids for sale.

(c) No fuel which contains any dangerous waste may be burned in any cement kiln which is located within the boundaries of any incorporated municipality with a population greater than five hundred thousand (based on the most recent census statistics) unless such kiln fully complies with regulations under this chapter that are applicable to incinerators.

(3) Standards applicable to generators of dangerous waste fuel.

(a) Generators of dangerous waste that is used as a fuel or used to produce a fuel are subject to WAC 173-303-170 through 173-303-230.

(b) Generators who market dangerous waste fuel to a burner also are subject to subsection (5) of this section.

(c) Generators who are burners also are subject to subsection (6) of this section.

(4) Standards applicable to transporters of dangerous waste fuel. Transporters of dangerous waste fuel (and dangerous waste that is used to produce a fuel) are subject to the requirements of WAC 173-303-240 through 173-303-270.

(5) Standards applicable to marketers of dangerous waste fuel.

Persons who market dangerous waste fuel are termed "marketers," and are subject to the following requirements. Marketers include generators who market dangerous waste fuel directly to a burner, persons who receive dangerous waste from generators and produce, process, or blend dangerous waste fuel from these dangerous wastes, and persons who distribute but do not process or blend dangerous waste fuel.

(a) Prohibitions. The prohibitions under subsection (2) of this section;

(b) Notification. Notification requirements under WAC 173-303-060 for dangerous waste fuel activities. Even if a marketer has previously notified the department of his dangerous waste management activities and obtained an EPA/state identification number, he must renotify to identify his dangerous waste fuel activities.

(c) Storage.

(i) For short term accumulation by generators who are marketers of dangerous waste fuel, the applicable provisions of WAC 173-303-200 or 173-303-201;

(ii) For all marketers who store dangerous waste fuel, the applicable storage provisions of:

(A) WAC 173-303-280 through 173-303-395;

(B) WAC 173-303-420; and

(C) WAC 173-303-800 through 173-303-840;

(iii) For marketers with interim status permits who store dangerous waste fuel, the applicable storage provisions of WAC 173-303-400 including Subparts F through L of 40 CFR Part 265;

(iv) For marketers with final status permits who store dangerous waste fuel, the applicable storage provisions of:

- (A) WAC 173-303-600 through 173-303-650; and
- (B) WAC 173-303-660.

(d) Off-site shipment. The standards for generators in WAC 173-303-170 through 173-303-230 when a marketer initiates a shipment of dangerous waste fuel;

(e) Required notices.

(i) Before a marketer initiates the first shipment of dangerous waste fuel to a burner or another marketer, he must obtain a one-time written and signed notice from the burner or marketer certifying that:

(A) The burner or marketer has notified the department under WAC 173-303-060 and identified his waste-as-fuel activities; and

(B) If the recipient is a burner, the burner will burn the dangerous waste fuel only in an industrial furnace or boiler identified in subsection (2)(b) of this section.

(ii) Before a marketer accepts the first shipment of dangerous waste fuel from another marketer, he must provide the other marketer with a one-time written and signed certification that he has notified the department under WAC 173-303-060 and identified his dangerous waste fuel activities; and

(f) Recordkeeping. In addition to the applicable recordkeeping requirements of WAC 173-303-210 and 173-303-380, a marketer must keep a copy of each certification notice he receives or sends for three years from the date he last engages in a dangerous waste fuel marketing transaction with the person who sends or receives the certification notice.

(6) Standards applicable to burners of dangerous waste fuel.

Owners and operators of industrial furnaces and boilers identified in subsection (2)(b) of this section that burn dangerous fuel are "burners" and are subject to the following requirements:

(a) Prohibitions. The prohibitions under subsection (2)(b) of this section;

(b) Notification. Notification requirements under WAC 173-303-060 for dangerous waste fuel activities. Even if a burner has previously notified the department of his dangerous waste management activities and obtained an EPA/state identification number, he must renotify to identify his dangerous waste fuel activities.

(c) Storage.

(i) For short term accumulation by generators who burn their dangerous waste fuel on site, the applicable provisions of WAC 173-303-200 or 173-303-201.

(ii) For all burners who store dangerous waste fuel, the applicable provisions of:

- (A) WAC 173-303-280 through 173-303-395;
- (B) WAC 173-303-420; and
- (C) WAC 173-303-800 through 173-303-840;

(iii) For burners under interim status permits, the applicable storage provisions of WAC 173-303-400 including Subparts F through L of 40 CFR Part 265;

(iv) For burners with final facility permits, the applicable storage provisions of:

- (A) WAC 173-303-600 through 173-303-650; and
- (B) WAC 173-303-660.

(d) Required notices. Before a burner accepts the first shipment of dangerous waste fuel from a marketer, he must provide the marketer a one-time written and signed notice certifying that:

(i) He has notified the department under WAC 173-303-060 and identified his waste-as-fuel activities; and

(ii) He will burn the fuel only in a boiler or furnace identified in subsection (2)(b) of this section.

(e) Recordkeeping. In addition to the applicable recordkeeping requirements of WAC 173-303-380, a burner must keep a copy of each certification notice that he sends to a marketer for three years from the date he last receives dangerous waste fuel from that marketer.

(f) Local requirements. Any person who burns dangerous waste for energy recovery must comply with air emission requirements of the local air pollution control authority (or department of ecology if no local authority with jurisdiction exists).

[Statutory Authority: Chapters 70.105 and 70.105D RCW, 40 CFR Part 271.3 and RCRA § 3006 (42 U.S.C. 3251), 91-07-005 (Order 90-42), § 173-303-510, filed 3/7/91, effective 4/7/91. Statutory Authority: Chapter 70.105 RCW. 88-18-083 (Order 88-29), § 173-303-510, filed 9/6/88; 88-07-039 (Order 87-37), § 173-303-510, filed 3/11/88; 86-12-057 (Order DE-85-10), § 173-303-510, filed 6/3/86; 84-14-031 (Order DE 84-22), § 173-303-510, filed 6/27/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-510, filed 2/10/82.]

WAC 173-303-515 Special requirements for used oil burned for energy recovery. (1) Applicability.

(a) This section applies to used oil that is burned for energy recovery in any boiler or industrial furnace that is not regulated under Subpart O of 40 CFR Part 265 or WAC 173-303-670, if such used oil:

(i) Exhibits any characteristic of a dangerous waste identified in WAC 173-303-090; or

(ii) Is designated as DW solely through WAC 173-303-084 or 173-303-101 through 173-303-103; or

(iii) Is designated solely as W001.

(b)(i) This section does not apply to used oil burned for energy recovery that is mixed with a listed waste (except as provided in (a)(iii) of this subsection) or that is designated as EHW through WAC 173-303-084 or 173-303-101 through 173-303-103. Such used oil is subject to the requirements of WAC 173-303-510.

(ii) Used oil containing more than 1000 ppm of total halogens is presumed to be a dangerous waste because it has been mixed with halogenated dangerous waste listed in WAC 173-303-9903 or 173-303-9904. Such dangerous wastes are subject to the requirements of WAC 173-303-510. Persons may rebut this presumption by demonstrating that the used oil does not contain dangerous waste (for example, by showing that the used oil

does not contain significant concentrations of halogenated dangerous constituents listed in WAC 173-303-9905).

(iii) This section does not apply to used oil that is designated for any reason other than being listed as W001 if such used oil is burned for energy recovery by the generator of the used oil in his own marine or diesel engines.

(c) If a used oil subject to this section does not exceed any of the specifications of Table 1, it is subject only to the analysis and recordkeeping requirements under subsection (4)(b)(i) and (vi) of this section; otherwise, it is subject to all applicable provisions of this section.

(d) For the purposes of this chapter:

(i) "Used oil" means any oil that has been refined from crude oil, used, and, as a result of such use, is contaminated by physical or chemical impurities;

(ii) Used oil fuel includes any fuel produced from used oil by processing, blending, or other treatments;

(iii) Used oil fuel that exceeds any specification level (described in Table 1) is termed "off-specification used oil fuel."

TABLE 1
USED OIL EXCEEDING ANY SPECIFICATION LEVEL IS SUBJECT TO THIS SECTION WHEN BURNED FOR ENERGY RECOVERY

Constituent/property	Allowable level
Arsenic.....	5 ppm maximum
Cadmium.....	2 ppm maximum
Chromium.....	10 ppm maximum
Lead.....	100 ppm maximum
Flash point.....	100° F minimum
Total halogens.....	4,000 ppm maximum*
Polychlorinated Biphenyls.....	2 ppm maximum

*Used oil containing more than 1,000 ppm total halogens is presumed to be a dangerous waste under the rebuttable presumption provided under (b)(ii) of this subsection. Such used oil is subject to WAC 173-303-510 rather than this section when burned for energy recovery unless the presumption of mixing can be successfully rebutted.

(2) Prohibitions.

(a) A person may market off-specification used oil for energy recovery only:

(i) To burners or other marketers who have notified the department of their used oil management activities stating the location and general description of such activities, and who have an EPA/state identification number; and

(ii) To burners who burn the used oil in an industrial furnace or boiler identified in (b) of this subsection.

(b) Off-specification used oil may be burned for energy recovery in only the following devices:

(i) Industrial furnaces identified in WAC 173-303-040; or

(ii) Boilers, as defined in WAC 173-303-040 that are identified as follows:

(A) Industrial boilers located on the site of a facility engaged in a manufacturing process where substances

are transformed into new products, including the component parts of products, by mechanical or chemical processes;

(B) Utility boilers used to produce electric power, steam, or heated or cooled air or other gases or fluids for sale; or

(C) Used oil-fired space heaters provided that:

(I) The heater burns only used oil that the owner or operator generates or used oil received from do-it-yourself oil changers who generate used oil as household waste;

(II) The heater is designed to have a maximum capacity of not more than 0.5 million Btu per hour; and

(III) The combustion gases from the heater are vented to the ambient air.

(3) Standards applicable to generators of used oil burned for energy recovery.

(a) Except as provided in (b) and (c) of this subsection generators of used oil are not subject to this section.

(b) Generators who market used oil directly to a burner are subject to subsection (4) of this section.

(c) Generators who burn used oil are subject to subsection (5) of this section.

(4) Standards applicable to marketers of used oil burned for energy recovery.

(a) Persons who market used oil fuel are termed "marketers." However, the following persons are not marketers subject to this section:

(i) Used oil generators, and collectors who transport used oil received only from generators, unless the generator or collector markets the used oil directly to a person who burns it for energy recovery. However, persons who burn some used oil fuel for purposes of processing or other treatment to produce used oil fuel for marketing are considered to be burning incidentally to processing. Thus, generators and collectors who market to such incidental burners are not marketers subject to this section;

(ii) Persons who market only used oil fuel that meets the specification under Table 1 of subsection (1) of this section and who are not the first person to claim the oil meets the specification (i.e., marketers who do not receive used oil from generators or initial transporters and marketers who neither receive nor market off-specification used oil fuel).

(b) Marketers are subject to the following requirements:

(i) Analysis of used oil fuel. Used oil fuel is subject to regulation under this section unless the marketer obtains analyses or other information documenting that the used oil fuel meets the specification provided under Table 1 of subsection (1) of this section.

(ii) Prohibitions. The prohibitions under subsection (2)(a) of this section;

(iii) Notification. Notification to the department stating the location and general description of used oil management activities. Even if a marketer has previously notified the department of his dangerous waste management activities under WAC 173-303-060 and obtained an EPA/state identification number, he must renotify to identify his used oil management activities.

(iv) Invoice system. When a marketer initiates a shipment of off-specification used oil, he must prepare and send the receiving facility an invoice containing the following information:

- (A) An invoice number;
- (B) His own EPA/state identification number and the EPA/state identification number of the receiving facility;
- (C) The names and addresses of the shipping and receiving facilities;
- (D) The quantity of off-specification used oil to be delivered;
- (E) The date(s) of shipment or delivery; and
- (F) The following statement: "This used oil subject to Washington state department of ecology regulation under WAC 173-303-515;

Note: Used oil that meets the definition of combustible liquid (flash point below 200°F but at or greater than 100°F) or flammable liquid (flash point below 100°F) is subject to Department of Transportation Hazardous Materials Regulations at 49 CFR Parts 100-177.

(v) Required notices.

(A) Before a marketer initiates the first shipment of off-specification used oil to a burner or other marketer, he must obtain a one-time written and signed notice from the burner or marketer certifying that:

(I) The burner or marketer has notified the department stating the location and general description of his used oil management activities; and

(II) If the recipient is a burner, the burner will burn the off-specification used oil only in an industrial furnace or boiler identified in subsection (2)(b) of this section; and

(B) Before a marketer accepts the first shipment of off-specification used oil from another marketer subject to the requirements of this subsection, he must provide the marketer with a one-time written and signed notice certifying that he has notified the department of his used oil management activities; and

(vi) Recordkeeping.

(A) Used oil fuel that meets the specification. A marketer who first claims under (b)(i) of this subsection that used oil fuel meets the specification must keep copies of analysis (or other information used to make the determination) of used oil for three years. Such marketers must also record in an operating log and keep for three years the following information on each shipment of used oil fuel that meets the specification. Such used oil fuel is not subject to further regulation, unless it is subsequently mixed with dangerous waste or unless it is mixed with used oil so that it no longer meets the specification.

(I) The name and address of the facility receiving the shipment;

(II) The quantity of used oil fuel delivered;

(III) The date of shipment or delivery; and

(IV) A cross-reference to the record of used oil analysis (or other information used to make the determination that the oil meets the specification) required under (b)(vi)(A) of this subsection.

(B) Off-specification used oil fuel. A marketer who receives or initiates an invoice under the requirements of this section must keep a copy of each invoice for three years from the date the invoice is received or prepared. In addition, a marketer must keep a copy of each certification notice that he receives or sends for three years from the date he last engages in an off-specification used oil fuel marketing transaction with the person who sends or receives the certification notice.

(5) Standards applicable to burners of used oil burned for energy recovery.

Owners and operators of facilities that burn used oil fuel are "burners" and are subject to the following requirements:

(a) Prohibition. The prohibition under subsection (2)(b) of this section;

(b) Notification. Burners of off-specification used oil fuel must notify the department stating the location and general description of used oil management activities, except that owners and operators of used oil-fired space heaters that burn used oil fuel under the provisions of subsection (2)(b)(ii) of this section are exempt from these notification requirements. Even if a burner has previously notified the department of his dangerous waste management activities under WAC 173-303-060 and obtained an identification number, he must renotify to identify his used oil management activities.

(c) Required notices. Before a burner accepts the first shipment of off-specification used oil fuel from a marketer, he must provide the marketer a one-time written and signed notice certifying that:

(i) He has notified the department stating the location and general description of his used oil management activities; and

(ii) He will burn the used oil only in an industrial furnace or boiler identified in subsection (2)(b) of this section; and

(d) Used oil fuel analysis.

(i) Used oil fuel burned by the generator is subject to regulation under this section unless the burner obtains analysis (or other information) documenting that the used oil meets the specification provided under Table 1 of subsection (1) of this section.

(ii) Burners who treat off-specification used oil fuel by processing, blending, or other treatment to meet the specification provided under Table 1 of subsection (1) of this section must obtain analyses (or other information) documenting that the used oil meets the specification.

(e) Recordkeeping. A burner who receives an invoice under the requirements of this section must keep a copy of each invoice for three years from the date the invoice is received. Burners must also keep for three years copies of analyses of used oil fuel as may be required by (d) of this subsection. In addition, he must keep a copy of each certification notice that he sends to a marketer for three years from the date he last receives off-specification used oil from that marketer.

(f) Local requirements. Any person who burns used oil for energy recovery, except for burning in used oil-fired space heaters that meet the provisions of subsection

(2)(b)(ii) of this section, must comply with the air emission requirements of the local air pollution control authority (or department of ecology if no local authority with jurisdiction exists).

[Statutory Authority: Chapters 70.105 and 70.105D RCW, 40 CFR Part 271.3 and RCRA § 3006 (42 U.S.C. 3251), 91-07-005 (Order 90-42), § 173-303-515, filed 3/7/91, effective 4/7/91. Statutory Authority: Chapter 70.105 RCW, 89-02-059 (Order 88-24), § 173-303-515, filed 1/4/89; 87-14-029 (Order DE-87-4), § 173-303-515, filed 6/26/87; 86-12-057 (Order DE-85-10), § 173-303-515, filed 6/3/86; 84-14-031 (Order DE 84-22), § 173-303-515, filed 6/27/84.]

WAC 173-303-520 Special requirements for reclaiming spent lead acid battery wastes. This section applies to persons who reclaim spent lead-acid batteries that are recyclable materials ("spent batteries").

(1) Persons who generate, transport, or who store spent batteries but do not reclaim them are subject only to the requirements of WAC 173-303-050, 173-303-145 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 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 173-303-283;
- (iii) WAC 173-303-290;
- (iv) WAC 173-303-310 through 173-303-360;
- (v) WAC 173-303-380;
- (vi) WAC 173-303-390 (2) and (3);
- (vii) WAC 173-303-395;
- (viii) WAC 173-303-420; 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.

[Statutory Authority: Chapters 70.105 and 70.105D RCW, 40 CFR Part 271.3 and RCRA § 3006 (42 U.S.C. 3251), 91-07-005 (Order 90-42), § 173-303-520, filed 3/7/91, effective 4/7/91. Statutory Authority: Chapter 70.105 RCW, 88-18-083 (Order 88-29), § 173-303-520, filed 9/6/88; 88-07-039 (Order 87-37), § 173-303-520, filed 3/11/88; 86-12-057 (Order DE-85-10), § 173-303-520, filed 6/3/86; 84-14-031 (Order DE 84-22), § 173-303-520, filed 6/27/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260, 82-05-023 (Order DE 81-33), § 173-303-520, filed 2/10/82.]

WAC 173-303-525 Special requirements for recyclable material utilized for precious metal recovery. (1) Applicability and requirements.

(a) This section applies to recyclable materials that are reclaimed to recover economically significant amounts of gold, silver, platinum, palladium, iridium, osmium, rhodium, ruthenium, or any combination of these.

(b) Persons who generate, transport, or store recyclable materials that are regulated under this section are subject to the following requirements:

(i) Notification requirements under WAC 173-303-060;

(ii) WAC 173-303-180 (for generators), 173-303-250 (for transporters), and 173-303-370 (for persons who store).

(c) Persons who store recycled materials that are regulated under this section must keep the following records to document that they are not accumulating these materials speculatively (as defined in WAC 173-303-016 (5)(d)(ii));

(i) Records showing the volume of these materials stored at the beginning of the calendar year;

(ii) The amount of these materials generated or received during the calendar year; and

(iii) The amount of materials remaining at the end of the calendar year.

(d) Recyclable materials that are regulated under this section that are accumulated speculatively (as defined in WAC 173-303-016 (5)(d)(ii)) are dangerous wastes and are subject to all applicable provisions of this chapter.

(2) Additional regulation of recyclable materials utilized for precious metal recovery on a case-by-case basis.

The department may decide on a case-by-case basis that persons accumulating or storing recyclable materials utilized for precious metal recovery should be regulated under WAC 173-303-120(4). The basis for this decision is that the materials are being accumulated or stored in a manner that does not protect human health and the environment because the materials or their toxic constituents have not been adequately contained, or because the materials being accumulated or stored together are incompatible. In making this decision, the department will consider the following factors:

(a) The types of materials accumulated or stored and the amounts accumulated or stored;

(b) The method of accumulation or storage;

(c) The length of time the materials have been accumulated or stored before being reclaimed;

(d) Whether any contaminants are being released into the environment, or are likely to be so released; and

(e) Other relevant factors.

The procedures for this decision are set forth in subsection (3) of this section.

(3) Procedures for case-by-case regulation of recyclable materials utilized for precious metal recovery.

The department will use the following procedures when determining whether to regulate recyclable materials utilized for precious metal recovery under the provisions of WAC 173-303-120(4), rather than under the provisions of subsection (1) of this section.

(a) If a generator is accumulating the waste, the department will issue a notice setting forth the factual basis for the decision and stating that the person must comply with the applicable requirements of WAC 173-303-170 and 173-303-190 through 173-303-230. The notice will become final within thirty days, unless the person served requests a public hearing to challenge the decision. Upon receiving such a request, the department will hold a public hearing. The department will provide

notice of the hearing to the public and allow public participation at the hearing. The department will issue a final order after the hearing stating whether or not compliance with WAC 173-303-170 and 173-303-190 through 173-303-230 is required. The order becomes effective thirty days after service of the decision unless the department specifies a later date or unless review by the department is requested. The order may be appealed to the pollution control hearings board, in accordance with WAC 173-303-845, by any person who participated in the public hearing.

(b) If the person is accumulating the recyclable material as a storage facility, the notice will state that the person must obtain a permit in accordance with all applicable provisions of WAC 173-303-800 through 173-303-840. The owner or operator of the facility must apply for a permit within no less than sixty days and no more than six months of notice, as specified in the notice. If the owner or operator of the facility wishes to challenge the department's decision he may do so in his permit application, in a public hearing held on the draft permit, or in comments filed on the draft permit or on the notice of intent to deny the permit. The fact sheet accompanying the permit will specify the reasons for the department's determination. The question of whether the department's decision was proper will remain open for consideration during the public comment period discussed under WAC 173-303-840 (4)(d) and in any subsequent hearing.

[Statutory Authority: Chapters 70.105 and 70.105D RCW, 40 CFR Part 271.3 and RCRA § 3006 (42 U.S.C. 3251), 91-07-005 (Order 90-42), § 173-303-525, filed 3/7/91, effective 4/7/91. Statutory Authority: Chapter 70.105 RCW, 86-12-057 (Order DE-85-10), § 173-303-525, filed 6/3/86.]

WAC 173-303-550 Special requirements for facilities managing special waste. (1) Purpose. Special wastes (as defined in WAC 173-303-040) pose less risk to public health and the environment than do other dangerous wastes, therefore, they do not require as high a level of regulation. The purpose of WAC 173-303-550 through 173-303-560 is to set forth those mandatory standards which are minimally acceptable for managing special waste, and the criteria and selective standards which will be applied based on the specific risks posed by such wastes.

(2) Applicability. The requirements of WAC 173-303-550 through 173-303-560 apply to owners and operators of facilities which manage special waste, and are only applicable to such special wastes as are being managed. Whenever a special waste is shipped from a facility, the owner or operator must comply with WAC 173-303-170 through 173-303-230, requirements for generators.

(3) Standards. The owner/operator of a facility managing special wastes must comply with all applicable standards of this chapter unless he requests (as described in subsection (4) of this section) and the department approves (as described in subsection (5) of this section) the application of less stringent standards to his facility. The owner/operator may request relief from any standards except those minimum standards specified in WAC 173-

303-560. Failure to comply with an approval issued by the department pursuant to subsection (5) of this section, will be a violation of this chapter. Failure to comply with all applicable requirements of this chapter while the department is considering a request or after a request has been denied will be a violation of this chapter.

(4) Request. The owner/operator may request that less stringent standards be applied to his special waste management activities in any manner or form that he chooses. His request must be submitted in writing to the department, and must include:

(a) The facility name, EPA/state identification #, address, telephone number, and a contact person at the facility;

(b) The special waste(s) managed at the facility and the type(s) of management applied to them;

(c) The specific standards from which the owner/operator seeks relief;

(d) A description, for each standard, demonstrating:

(i) Why the owner/operator believes the standard to be unnecessary;

(ii) How public health and the environment will continue to be protected if the standard is not applied to the facility; and

(iii) Any evidence supporting the contention that public health and the environment will be adequately protected if the standard is not applied (e.g., test data, diagrams, experiences at similar facilities, records, reports, etc.); and

(e) The following certification, signed and dated by a person who would be authorized to sign a report under WAC 173-303-810 (12)(b):

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this request and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the 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."

The department may ask for any additional information it deems necessary, and will not consider approval of the owner's/operator's request until all necessary information has been submitted. Failure to provide any of the information required by this subsection may result in the department's denying the owner's/operator's request.

(5) Approval or denial. The department will review any requests submitted pursuant to subsection (4) of this section, and based on the adequacy of the information provided in the request will approve or deny all or any part of the request. The department will notify the owner/operator of its decision in writing. Approval of a request will not be final until the permit has been modified or issued as described in (a) or (b) of this subsection. If the department decides to approve all or part of the request and the owner/operator agrees with the department's decision, then the department will proceed to grant such approval as follows:

(a) Interim status facilities. For a facility which qualifies for interim status (as described in WAC 173-303-

805), the department shall issue a notice of interim status modification in accordance with WAC 173-303-805(9) stating what standards the owner/operator must meet;

(b) Final facilities.

(i) For facilities which are required to have a final facility permit, the department shall follow the procedures for issuing (or, for facilities which already have a final facility permit, the procedures for modifying) a final facility permit, as described in WAC 173-303-806. The new or modified final facility permit shall include the standards the owner/operator must meet.

(ii) The department may request that an applicant for a final facility permit submit his planned special waste demonstrations (prepared in accordance with subsection (4) of this section) a maximum of three months prior to submittal of his Part B application.

[Statutory Authority: Chapters 70.105 and 70.105D RCW, 40 CFR Part 271.3 and RCRA § 3006 (42 U.S.C. 3251). 91-07-005 (Order 90-42), § 173-303-550, filed 3/7/91, effective 4/7/91. Statutory Authority: Chapter 70.105 RCW. 89-02-059 (Order 88-24), § 173-303-550, filed 1/4/89; 87-14-029 (Order DE-87-4), § 173-303-550, filed 6/26/87; 84-09-088 (Order DE 83-36), § 173-303-550, filed 4/18/84.]

WAC 173-303-560 Minimum standards for facilities managing special waste. In no case will the department approve standards for facilities managing special waste which do not include, at a minimum, the following applicable requirements:

- (1) WAC 173-303-060;
- (2) WAC 173-303-283;
- (3) WAC 173-303-350;
- (4) WAC 173-303-360;
- (5) WAC 173-303-370;
- (6) WAC 173-303-380; and
- (7) WAC 173-303-390.

[Statutory Authority: Chapters 70.105 and 70.105D RCW, 40 CFR Part 271.3 and RCRA § 3006 (42 U.S.C. 3251). 91-07-005 (Order 90-42), § 173-303-560, filed 3/7/91, effective 4/7/91. Statutory Authority: Chapter 70.105 RCW. 88-18-083 (Order 88-29), § 173-303-560, filed 9/6/88; 88-07-039 (Order 87-37), § 173-303-560, filed 3/11/88; 87-14-029 (Order DE-87-4), § 173-303-560, filed 6/26/87; 84-09-088 (Order DE 83-36), § 173-303-560, filed 4/18/84.]

WAC 173-303-600 Final facility standards. Purpose, scope, and applicability.

(1) The purpose of WAC 173-303-600 through 173-303-680, is to establish minimum state-wide standards which describe the acceptable management of dangerous waste. In addition to WAC 173-303-600 through 173-303-680, the final facility standards include WAC 173-303-280 through 173-303-395 and 173-303-420.

(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); and

(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 and the generator complies with WAC 173-303-200 (1)(b) and 173-303-395 (1)(a) and (b).

(4) The owner or operator of a final status TSD facility which manages special waste may comply with the special requirements selected under WAC 173-303-550 through 173-303-560 in lieu of the final facility standards of WAC 173-303-600 through 173-303-670, but only for those special wastes which he manages and only after the department has issued or modified his final facility permit in accordance with WAC 173-303-800 through 173-303-840 to incorporate the special requirements.

(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.

[Statutory Authority: Chapters 70.105 and 70.105D RCW, 40 CFR Part 271.3 and RCRA § 3006 (42 U.S.C. 3251), 91-07-005 (Order 90-42), § 173-303-600, filed 3/7/91, effective 4/7/91. Statutory Authority: Chapter 70.105 RCW, 88-18-083 (Order 88-29), § 173-303-600, filed 9/6/88; 88-07-039 (Order 87-37), § 173-303-600, filed 3/11/88; 87-14-029 (Order DE-87-4), § 173-303-600, filed 6/26/87; 86-12-057 (Order DE-85-10), § 173-303-600, filed 6/3/86; 84-09-088 (Order DE 83-36), § 173-303-600, filed 4/18/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260, 82-05-023 (Order DE 81-33), § 173-303-600, filed 2/10/82.]

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 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(8), 173-303-660(9), 173-303-670(8), or 173-303-680 (2) through (4) 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) Background environmental levels, for any dangerous waste, managed at the facility, which either is listed under WAC 173-303-081 or 173-303-082 or is designated by the characteristics of WAC 173-303-090; and

(ii) At least the designation limits of WAC 173-303-084, or 173-303-101 through 173-303-103 for any dangerous waste, managed at the facility, which is not listed under WAC 173-303-081 or 173-303-082 and is not designated by the characteristics of WAC 173-303-090. In addition to these limits, the department may specify in the closure plan for a facility any lower limits for removal or decontamination which the department deems appropriate.

(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 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), 173-303-650(6), 173-303-655(8), 173-303-660(9), 173-303-665(6), 173-303-670(8), and 173-303-680(2). 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, 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)(A) The date when he "expects to begin closure" must be either 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.

(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 shall 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) and (b) of this subsection must be made as follows: The demonstrations in (a) 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) 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) 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) (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 subpart F of this part, 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 shall 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 shall:

(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 shall 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 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 applicable; 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 ensure:

(A) The integrity of the cap and final cover or other containment structures where applicable; 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).

[Statutory Authority: Chapters 70.105 and 70.105D RCW, 40 CFR Part 271.3 and RCRA § 3006 (42 U.S.C. 3251), 91-07-005 (Order 90-42), § 173-303-610, filed 3/7/91, effective 4/7/91. Statutory Authority: Chapter 70.105 RCW, 89-02-059 (Order 88-24), § 173-303-610, filed 1/4/89; 87-14-029 (Order DE-87-4), § 173-303-610, filed 6/26/87; 84-14-031 (Order DE 84-22), § 173-303-610, filed 6/27/84. Statutory Authority: RCW 70.95.260 and chapter 70.105 RCW, 82-05-023 (Order DE 81-33), § 173-303-610, filed 2/10/82.]

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 only to owners and operators of dangerous waste disposal facilities, to tank systems that are required under WAC 173-303-640(8) to meet the requirements of landfills, to miscellaneous units as specified in WAC 173-303-680(4), and to 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.

(c) States and the federal government are exempt from the requirements of this section, except that operators of facilities who are under contract with the state or federal government must meet the requirements of this section.

(2) Definitions. As used in this section, the following listed or referenced terms shall 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 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), and 173-303-680 (2) through (4). 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 non-dangerous 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* 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 shall meet all the requirements set forth in 40 CFR 264.143.

(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* 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 shall meet all the requirements set forth in 40 CFR 264.145.

(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. 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).

(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).

(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.

(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 shall contain the wording specified by 40 CFR 264.151, except that:

(a) The words "regional administrator" and "environmental protection agency" must be replaced with the word "department";

(b) The words "hazardous waste" must be replaced with the words "dangerous waste"; and

(c) Any other words specified by the department shall be changed as necessary to assure financial responsibility of the facility in accordance with the requirements of this section.

Copies of the financial instruments with the appropriate word changes will be available from the department by June 30, 1984.

[Statutory Authority: Chapters 70.105 and 70.105D RCW, 40 CFR Part 271.3 and RCRA § 3006 (42 U.S.C. 3251), 91-07-005 (Order 90-42), § 173-303-620, filed 3/7/91, effective 4/7/91. Statutory Authority: Chapter 70.105 RCW, 89-02-059 (Order 88-24), § 173-303-620, filed 1/4/89; 87-14-029 (Order DE-87-4), § 173-303-620, filed 6/26/87; 84-09-088 (Order DE 83-36), § 173-303-620, filed 4/18/84. Statutory Authority: RCW 70.95.260 and chapter 70.105 RCW, 82-05-023 (Order DE 81-33), § 173-303-620, filed 2/10/82. Formerly WAC 173-302-340.]

WAC 173-303-630 Use and management of containers. (1) Applicability. The regulations in this section apply to owners and operators of all dangerous waste facilities that store containers of dangerous waste.

(2) Condition of containers. If a container holding dangerous waste is not in good condition (e.g., severe rusting, apparent structural defects) or if it begins to leak, the owner or operator must transfer the dangerous waste from the container to a container that is in good condition or manage the waste in some other way that complies with the requirements of chapter 173-303 WAC. In addition, the owner or operator must address leaks and spills in accordance with the applicable provisions of WAC 173-303-145 and 173-303-360.

(3) Identification of containers. The owner or operator must label containers in a manner which adequately identifies the major risk(s) associated with the contents of the containers 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 affix labels upon transfer of dangerous wastes 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. 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.

(4) Compatibility of waste with containers. The owner or operator must use a container made of or lined with materials which will not react with, and are otherwise compatible with, the dangerous waste to be stored, so that the ability of the container to contain the waste is not impaired.

(5) Management of containers.

(a) A container holding dangerous waste must always be closed, except when it is necessary to add or remove waste.

(b) A container holding dangerous waste must not be opened, handled, or stored in a manner which may rupture the container or cause it to leak.

(c) A minimum thirty-inch separation is required between aisles of containers holding dangerous waste(s). A row of drums must be no more than two drums wide.

(6) Inspections. At least weekly, the owner or operator must inspect areas where containers are stored, looking for leaking containers and for deterioration of containers and the containment system caused by corrosion, deterioration, or other factors.

(7) Containment.

(a) Container storage areas must have a containment system that is capable of collecting and holding spills and leaks. In addition to the necessary leak containment capacity, uncovered storage areas must be capable of holding the additional volume that would result from the precipitation of a maximum twenty-five year storm of twenty-four hours duration. The containment system must:

(i) Have a base underlying the containers which is free of cracks or gaps and is sufficiently impervious to contain leaks, spills, and accumulated rainfall until the collected material is detected and removed. The base must be sloped or the containment system must be otherwise designed and operated to drain and remove liquids resulting from leaks, spills, or precipitation, unless the containers are elevated or are otherwise protected from contact with accumulated liquids;

(ii) Be designed for positive drainage control (such as a locked drainage valve) to prevent release of contaminated liquids and so that uncontaminated precipitation can be drained promptly for convenience of operation. Spilled or leaked waste and accumulated precipitation must be removed from the containment system in as timely a manner as is necessary to prevent overflow; and

(iii) Have sufficient capacity to contain ten percent of the volume of all containers or the volume of the largest container, whichever is greater. Only containers holding free liquids, or holding wastes designated as F020, F021, F022, F023, F026, or F027 need to be considered in this determination.

(b) Run-on into the containment system must be prevented, unless the department waives this requirement in the permit after determining that the collection system has sufficient excess capacity in addition to that required in (a)(iii) of this subsection to accommodate any run-on which might enter the system.

(c) Storage areas that store containers holding only wastes that do not contain free liquids, do not exhibit either the characteristic of ignitability or reactivity as described in WAC 173-303-090 (5) or (7), and are not designated as F020, F021, F022, F023, F026, or F027, need not have a containment system as described in this subsection: *Provided, That:*

(i) The storage area is sloped or is otherwise designed and operated to drain and remove liquid resulting from precipitation; or

(ii) The containers are elevated or are otherwise protected from contact with accumulated liquids.

(d) EHW in containers must be protected from the elements by means of a building or other protective covering that otherwise allows adequate inspection under subsection (6) of this section.

(8) Special requirements for ignitable or reactive waste.

(a) Containers holding reactive waste exhibiting a characteristic specified in WAC 173-303-090 (7)(a)(vi), (vii) or (viii) must be stored in a manner equivalent to the Uniform Fire Code's "American Table of Distances for Storage of Explosives," Table 77-201, 1979 edition.

(b) The owner or operator shall design, operate, and maintain ignitable waste and reactive waste (other than a reactive waste which must meet (a) of this subsection) container storage in a manner equivalent with the Uniform Fire Code. Where no specific standard or requirements are specified in the Uniform Fire Code, or in existing state or local fire codes, applicable sections of the NFPA Pamphlet # 30, "Flammable and Combustible Liquids Code," shall be used. The owner/operator shall also comply with the requirements of WAC 173-303-395 (1)(d).

(9) Special requirements for incompatible wastes.

(a) Incompatible wastes, or incompatible wastes and materials must not be placed in the same container, unless WAC 173-303-395 (1)(b) is complied with.

(b) Dangerous waste must not be placed in an unwashed container that previously held an incompatible waste or material.

(c) A storage container holding a dangerous waste that is incompatible with any waste or other materials stored nearby in other containers, piles, open tanks, or surface impoundments must be separated from the other materials or protected from them by means of a dike, berm, wall, or other device. Containment systems for incompatible wastes shall be separate.

(10) Closure. At closure, all dangerous waste and dangerous waste residues must be removed from the containment system. Remaining containers, liners, bases, and soil containing or contaminated with dangerous waste or dangerous waste residues must be decontaminated or removed.

[Statutory Authority: Chapters 70.105 and 70.105D RCW, 40 CFR Part 271.3 and RCRA § 3006 (42 U.S.C. 3251). 91-07-005 (Order 90-42), § 173-303-630, filed 3/7/91, effective 4/7/91. Statutory Authority: Chapter 70.105 RCW. 86-12-057 (Order DE-85-10), § 173-303-630, filed 6/3/86; 84-09-088 (Order DE 83-36), § 173-303-630, filed 4/18/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-630, filed 2/10/82.]

WAC 173-303-645 Releases from solid waste management units. (1) Applicability.

(a)(i) Except as provided in (b) of this subsection, the regulations in this section apply to owners and operators of facilities that treat, store, or dispose of dangerous waste. The owner or operator must satisfy the requirements identified in (a)(ii) of this subsection for all wastes (or constituents thereof) contained in solid waste management units at the facility, regardless of the time at which waste was placed in such units.

(ii) All solid waste management units must comply with the requirements in subsection (12) of this section. Regulated units (as defined in WAC 173-303-040) must comply with the requirements of subsections (2) through (11) of this section, in lieu of subsection (12) of this section, for purposes of detecting, characterizing, and responding to releases to the uppermost aquifer. The financial responsibility requirements of subsection (12) of this section apply to regulated units.

(b) The owner or operator's regulated unit or units are not subject to regulation for releases into the uppermost aquifer under this section if:

(i) The owner or operator is exempted under WAC 173-303-600; or

(ii) He operates a unit which the department finds:

(A) Is an engineered structure;

(B) Does not receive or contain liquid waste or waste containing free liquids;

(C) Is designed and operated to exclude liquid, precipitation, and other run-on and run-off;

(D) Has both inner and outer layers of containment enclosing the waste;

(E) Has a leak detection system built into each containment layer;

(F) The owner or operator will provide continuing operation and maintenance of these leak detection systems during the active life of the unit and the closure and post-closure care periods; and

(G) To a reasonable degree of certainty, will not allow dangerous constituents to migrate beyond the outer containment layer prior to the end of the post-closure care period.

(iii) The department finds, pursuant to WAC 173-303-655 (8)(d), that the treatment zone of a land treatment unit does not contain levels of dangerous constituents that are above background levels of those constituents by an amount that is statistically significant, and if an unsaturated zone monitoring program meeting the requirements of WAC 173-303-655(6) has not shown a statistically significant increase in dangerous constituents below the treatment zone during the operating life of the unit. An exemption under this subsection can only relieve an owner or operator of responsibility to meet the requirements of this section during the postclosure care period; or

(iv) The department finds that there is no potential for migration of liquid from a regulated unit to the uppermost aquifer during the active life of the regulated unit (including the closure period) and the postclosure care period. This demonstration must be certified by a qualified geologist or geotechnical engineer. In order to provide an adequate margin of safety in the prediction of potential migration of liquid, the owner or operator must base any predictions made under this subsection on assumptions that maximize the rate of liquid migration.

(c) The regulations under this section apply during the active life of the regulated unit (including the closure period). After closure of the regulated unit, the regulations in this section:

(i) Do not apply if all waste, waste residues, contaminated containment system components, and contaminated subsoils are removed or decontaminated at closure in accordance with the removal or decontamination limits specified in WAC 173-303-610 (2)(b);

(ii) Apply during the postclosure care period if the owner or operator is conducting a detection monitoring program under subsection (9) of this section; and

(iii) Apply during the compliance period under subsection (7) of this section, if the owner or operator is conducting a compliance monitoring program under subsection (10) of this section, or a corrective action program under subsection (11) of this section.

(d) Regulations in this section may apply to miscellaneous units when necessary to comply with WAC 173-303-680 (2) through (4).

(2) Required programs.

(a) Owners and operators subject to this section must conduct a monitoring and response program as follows:

(i) Whenever dangerous constituents under subsection (4) of this section, from a regulated unit are detected at the compliance point under subsection (6) of this section, the owner or operator must institute a compliance monitoring program under subsection (10) of this section. Detected is defined as statistically significant evidence of contamination as described in subsection (9)(g) of this section;

(ii) Whenever the ground water protection standard under subsection (3) of this section, is exceeded, the owner or operator must institute a corrective action program under subsection (11) of this section. Exceeded is defined as statistically significant evidence of increased contamination as described in subsection (10)(h) of this section;

(iii) Whenever dangerous constituents under subsection (4) of this section, from a regulated unit exceed concentration limits under subsection (5) of this section, in ground water between the compliance point under subsection (6) of this section and the downgradient facility property boundary, the owner or operator must institute a corrective action program under subsection (11) of this section; and

(iv) In all other cases, the owner or operator must institute a detection monitoring program under subsection (9) of this section.

(b) The department will specify in the facility permit the specific elements of the monitoring and response program. The department may include one or more of the programs identified in (a) of this subsection, in the facility permit as may be necessary to protect human health and the environment and will specify the circumstances under which each of the programs will be required. In deciding whether to require the owner or operator to be prepared to institute a particular program, the department will consider the potential adverse effects on human health and the environment that might occur before final administrative action on a permit modification application to incorporate such a program could be taken.

(3) Ground water protection standard. The owner or operator must comply with conditions specified in the

facility permit that are designed to ensure that dangerous constituents under subsection (4) of this section, detected in the ground water from a regulated unit do not exceed the concentration limits under subsection (5) of this section, in the uppermost aquifer underlying the waste management area beyond the point of compliance under subsection (6) of this section, during the compliance period under subsection (7) of this section. To the extent practical, the department will establish this ground water protection standard in the facility permit at the time the permit is issued. If the department determines that an established standard is not protective enough, or if the department decides that it is not practical to establish standards at the time of permit issuance, the department will establish the groundwater protection standard in the facility permit when dangerous constituents have been detected in the groundwater from a regulated unit.

(4) Dangerous constituents.

(a) The department will specify in the facility permit the dangerous constituents to which the ground water protection standard of subsection (3) of this section, applies. Dangerous constituents are constituents identified in 40 CFR Part 264 Appendix IX (this list is available from the department upon request), and any other constituents not listed there which have caused a waste to be regulated under this chapter, that may be or have been detected in ground water in the uppermost aquifer underlying a regulated unit and that are reasonably expected to be in or derived from waste contained in a regulated unit, unless the department has excluded them under (b) of this subsection.

The department may also specify in the permit indicator parameters (e.g., specific conductance, pH, total organic carbon (TOC), total organic halogen (TOX), or heavy metals), waste constituents or reaction products as identified in the detection monitoring program under subsection (9)(a) of this section, that provide a reliable indication of the presence of dangerous constituents in the ground water.

(b) The department will exclude a 40 CFR Part 264 Appendix IX, or other identified constituent from the list of dangerous constituents specified in the facility permit if it finds that the constituent is not capable of posing a substantial present or potential hazard to human health or the environment. In deciding whether to grant an exemption, the department will consider the following:

(i) Potential adverse effects on ground water quality, considering:

(A) The physical and chemical characteristics of the waste in the regulated unit, including its potential for migration;

(B) The hydrogeological characteristics of the facility and surrounding land;

(C) The quantity of ground water and the direction of ground water flow;

(D) The proximity and withdrawal rates of ground water users;

(E) The current and future uses of ground water in the area;

(F) The existing quality of ground water, including other sources of contamination and their cumulative impact on the ground water quality;

(G) The potential for health risks caused by human exposure to waste constituents;

(H) The potential damage to wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents; and

(I) The persistence and permanence of the potential adverse effects;

(ii) Potential adverse effects on hydraulically-connected surface water quality, considering:

(A) The volume and physical and chemical characteristics of the waste in the regulated unit;

(B) The hydrogeological characteristics of the facility and surrounding land;

(C) The quantity and quality of ground water, and the direction of ground water flow;

(D) The patterns of rainfall in the region;

(E) The proximity of the regulated unit to surface waters;

(F) The current and future uses of surface waters in the area and any water quality standards established for those surface waters;

(G) The existing quality of surface water, including other sources of contamination and the cumulative impact on surface water quality;

(H) The potential for health risks caused by human exposure to waste constituents;

(I) The potential damage to wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents; and

(J) The persistence and permanence of the potential adverse effects; and

(iii) Any identification of underground sources of drinking water and exempted aquifers made pursuant to chapter 90.48 RCW, chapter 270, Laws of 1983, and other applicable state laws and regulations.

(5) Concentration limits.

(a) The department will specify in the facility permit concentration limits in the ground water for dangerous constituents established under subsection (4) of this section. The concentration of a dangerous constituent:

(i) Must not exceed the background level of that constituent in the ground water at the time that limit is specified in the permit; or

(ii) For any of the constituents listed in Table 1 of this subsection, must not exceed the respective value given in that table if the background level of the constituent is below the value given in Table 1; or

(iii) Must not exceed an alternate limit established by the department under (b) of this subsection.

Table 1. Maximum Concentration of Constituents for Ground Water Protection

Constituent	Maximum Concentration ¹
Arsenic	0.05
Barium	1.0

Constituent	Maximum Concentration ¹
Cadmium	0.01
Chromium	0.05
Lead	0.05
Mercury	0.002
Selenium	0.01
Silver	0.05
Endrin	0.0002
Lindane	0.004
Methoxychlor	0.1
Toxaphene	0.005
2,4-D	0.1
2,4,5-TP Silvex	0.01

¹Milligrams per liter.

(b) The department will establish an alternate concentration limit for a dangerous constituent if it finds that the constituent will not pose a substantial present or potential hazard to human health or the environment as long as the alternate concentration limit is not exceeded. In establishing alternate concentration limits, the department will consider the same factors listed in subsection (4)(b) (i) through (iii) of this section.

(6) Point of compliance.

(a) The department will specify in the facility permit the point of compliance at which the ground water protection standard of subsection (3) of this section, applies and at which monitoring must be conducted. The point of compliance is a vertical surface located at the hydraulically downgradient limit of the waste management area that extends down into the uppermost aquifer underlying the regulated units. Alternatively, the point of compliance may be any closer points identified by the department at the time the permit is issued, considering the risks of the facility, the wastes and constituents managed there, the potential for waste constituents to have already migrated past the alternate compliance point, and the potential threats to ground and surface waters.

(b) The waste management area is the limit projected in the horizontal plane of the area on which waste will be placed during the active life of a regulated unit. The waste management area includes horizontal space taken up by any liner, dike, or other barrier designed to contain waste in a regulated unit. If the facility contains more than one regulated unit, the waste management area is described by an imaginary line circumscribing the several regulated units.

(7) Compliance period.

(a) The department will specify in the facility permit the compliance period during which the ground water protection standard of subsection (3) of this section applies. The compliance period is the number of years equal to the active life of the waste management area (including any waste management activity prior to permitting, and the closure period).

(b) The compliance period begins when the owner or operator initiates a compliance monitoring program meeting the requirements of subsection (10) of this section.

(c) If the owner or operator is engaged in a corrective action program at the end of the compliance period specified in (a) of this subsection, the compliance period is extended until the owner or operator can demonstrate that the ground water protection standard of subsection (3) of this section, has not been exceeded for a period of three consecutive years.

(8) General ground water monitoring requirements.

The owner or operator must comply with the requirements of this subsection for any ground water monitoring program developed to satisfy subsections (9), (10), or (11) of this section.

(a) The ground water monitoring system must consist of a sufficient number of wells, installed at appropriate locations and depths to yield ground water samples from the uppermost aquifer that:

(i) Represent the quality of background water that has not been affected by leakage from a regulated unit;

(A) A determination of background quality may include sampling of wells that are not hydraulically upgradient of the waste management area where:

(I) Hydrogeologic conditions do not allow the owner or operator to determine what wells are hydraulically upgradient; and

(II) Sampling at other wells will provide an indication of background ground water quality that is representative or more representative than that provided by the upgradient wells; and

(ii) Represent the quality of ground water passing the point of compliance.

(iii) Allow for the detection of contamination when dangerous waste or dangerous constituents have migrated from the waste management area to the uppermost aquifer.

(b) If a facility contains more than one regulated unit, separate ground water monitoring systems are not required for each regulated unit, provided that provisions for sampling the ground water in the uppermost aquifer will enable detection and measurement at the compliance point of dangerous constituents from the regulated units that have entered the ground water in the uppermost aquifer.

(c) All monitoring wells must be cased in a manner that maintains the integrity of the monitoring well bore hole. This casing must allow collection of representative ground water samples. Wells must be constructed in such a manner as to prevent contamination of the samples, the sampled strata, and between aquifers and water bearing strata. Wells must meet the requirements set forth in Parts 1 and 3 of chapter 173-160 WAC, "Minimum standards for construction and maintenance of wells."

(d) The ground water monitoring program must include at a minimum, procedures and techniques for:

(i) Decontamination of drilling and sampling equipment;

(ii) Sample collection;

(iii) Sample preservation and shipment;

(iv) Analytical procedures and quality assurance; and

(v) Chain of custody control.

(e) The ground water monitoring program must include consistent sampling and analytical methods that ensure reliable ground water sampling, accurately measure dangerous constituents and indicator parameters in ground water samples, and provide a reliable indication of groundwater quality below the waste management area.

(f) The ground water monitoring program must include a determination of the ground water surface elevation each time ground water is sampled.

(g) In detection monitoring or where appropriate in compliance monitoring, data on each dangerous constituent specified in the permit will be collected from background wells and wells at the compliance point(s). The number and kinds of samples collected to establish background shall be appropriate for the form of statistical test employed, following generally accepted statistical principles. The sample size shall be as large as necessary to ensure with reasonable confidence that a contaminant release to ground water from a facility will be detected. The owner or operator will determine an appropriate sampling procedure and interval for each hazardous constituent listed in the facility permit which shall be specified in the unit permit upon approval by the department. This sampling procedure shall be:

(i) A sequence of at least four samples, taken at an interval that assures, to the greatest extent technically feasible, that an independent sample is obtained, by reference to the uppermost aquifer's effective porosity, hydraulic conductivity and hydraulic gradient, and the fate and transport characteristics of the potential contaminants; or

(ii) An alternate sampling procedure proposed by the owner or operator and approved by the department.

(h) The owner or operator will specify one of the following statistical methods to be used in evaluating ground water monitoring data for each hazardous constituent which, upon approval by the department, will be specified in the unit permit. The statistical test chosen shall be conducted separately for each dangerous constituent in each well. Where practical quantification limits (pql's) are used in any of the following statistical procedures to comply with (i)(v) of this subsection, the pql must be proposed by the owner or operator and approved by the department. Use of any of the following statistical methods must be protective of human health and the environment and must comply with the performance standards outlined in (i) of this subsection.

(i) A parametric analysis of variance (ANOVA) followed by multiple comparisons procedures to identify statistically significant evidence of contamination. The method must include estimation and testing of the contrasts between each compliance well's mean and the background mean levels for each constituent.

(ii) An analysis of variance (ANOVA) based on ranks followed by multiple comparisons procedures to identify statistically significant evidence of contamination. The

method must include estimation and testing of the contrasts between each compliance well's median and the background median levels for each constituent.

(iii) A tolerance or prediction interval procedure in which an interval for each constituent is established from the distribution of the background data, and the level of each constituent in each compliance well is compared to the upper tolerance or prediction limit.

(iv) A control chart approach that gives control limits for each constituent.

(v) Another statistical test method submitted by the owner or operator and approved by the department.

(i) Any statistical method chosen under (h) of this subsection for specification in the unit permit shall comply with the following performance standards, as appropriate:

(i) The statistical method used to evaluate ground water monitoring data shall be appropriate for the distribution of chemical parameters or dangerous constituents. If the distribution of the chemical parameters or dangerous constituents is shown by the owner or operator to be inappropriate for a normal theory test, then the data should be transformed or a distribution-free theory test should be used. If the distributions for the constituents differ, more than one statistical method may be needed.

(ii) If an individual well comparison procedure is used to compare an individual compliance well constituent concentration with background constituent concentrations or a ground water protection standard, the test shall be done at a Type I error level no less than 0.01 for each testing period. If a multiple comparisons procedure is used, the Type I experimentwise error rate for each testing period shall be no less than 0.05; however, the Type I error of no less than 0.01 for individual well comparisons must be maintained. This performance standard does not apply to tolerance intervals, prediction intervals, or control charts.

(iii) If a control chart approach is used to evaluate ground water monitoring data, the specific type of control chart and its associated parameter values shall be proposed by the owner or operator and approved by the department if it is protective of human health and the environment.

(iv) If a tolerance interval or a prediction interval is used to evaluate ground water monitoring data, the levels of confidence and, for tolerance intervals, the percentage of the population that the interval must contain, shall be proposed by the owner or operator and approved by the department if it finds these parameters to be protective of human health and the environment. These parameters will be determined after considering the number of samples in the background data base, the data distribution, and the range of the concentration values for each constituent of concern.

(v) The statistical method shall account for data below the limit of detection with one or more statistical procedures that are protective of human health and the environment. Any practical quantification limit (pql) approved by the department under (h) of this subsection that is used in the statistical method shall be the lowest

concentration level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions that are available to the facility.

(vi) If necessary, the statistical method shall include procedures to control or correct for seasonal and spatial variability as well as temporal correlation in the data.

(j) Ground water monitoring data collected in accordance with (g) of this subsection including actual levels of constituents must be maintained in the facility operating record. The department will specify in the permit when the data must be submitted for review.

(9) Detection monitoring program. An owner or operator required to establish a detection monitoring program under this subsection must, at a minimum, discharge the responsibilities described in this subsection.

(a) The owner or operator must monitor for indicator parameters (e.g., pH, specific conductance, total organic carbon (TOC), total organic halogen (TOX), or heavy metals), waste constituents, or reaction products that provide a reliable indication of the presence of dangerous constituents in ground water. The department will specify the parameters or constituents to be monitored in the facility permit, after considering the following factors:

(i) The types, quantities, and concentrations of constituents in wastes managed at the regulated unit;

(ii) The mobility, stability, and persistence of waste constituents or their reaction products in the unsaturated zone beneath the waste management area;

(iii) The detectability of indicator parameters, waste constituents, and reaction products in ground water; and

(iv) The concentrations or values and coefficients of variation of proposed monitoring parameters or constituents in the ground water background.

(b) The owner or operator must install a ground water monitoring system at the compliance point, as specified under subsection (6) of this section. The ground water monitoring system must comply with subsection (8)(a)(ii), (b), and (c) of this section.

(c) The owner or operator must conduct a ground water monitoring program for each chemical parameter and dangerous constituent specified in the permit pursuant to (a) of this subsection in accordance with subsection (8)(g) of this section. The owner or operator must maintain a record of ground water analytical data as measured and in a form necessary for the determination of statistical significance under subsection (8)(h) of this section.

(d) The department will specify the frequencies for collecting samples and conducting statistical tests to determine whether there is statistically significant evidence of contamination for any parameter or dangerous constituent specified in the permit under (a) of this subsection in accordance with subsection (8)(g) of this section. A sequence of at least four samples from each well (background and compliance wells) must be collected at least semiannually during detection monitoring.

(e) The owner or operator must determine the ground water flow rate and direction in the uppermost aquifer at least annually.

(f) The owner or operator must determine whether there is statistically significant evidence of contamination for any chemical parameter of dangerous constituent specified in the permit pursuant to (a) of this subsection at a frequency specified under (d) of this subsection.

(i) In determining whether statistically significant evidence of contamination exists, the owner or operator must use the method(s) specified in the permit under subsection (8)(h) of this section. These method(s) must compare data collected at the compliance point(s) to the background ground water quality data.

(ii) The owner or operator must determine whether there is statistically significant evidence of contamination at each monitoring well as the compliance point within a reasonable period of time after completion of sampling. The department will specify in the facility permit what period of time is reasonable after considering the complexity of the statistical test and the availability of laboratory facilities to perform the analysis of ground water samples.

(g) If the owner or operator determines pursuant to (f) of this subsection that there is statistically significant evidence of contamination for chemical parameters or dangerous constituents specified pursuant to (a) of this subsection at any monitoring well at the compliance point, he or she must:

(i) Notify the department of this finding in writing within seven days. The notification must indicate what chemical parameters or dangerous constituents have shown statistically significant evidence of contamination:

(ii) Immediately sample the ground water in all monitoring wells and determine whether constituents in the list of Appendix IX of Part 264 are present, and if so, in what concentration.

(iii) For any Appendix IX compounds found in the analysis pursuant to (g)(ii) of this subsection, the owner or operator may resample within one month and repeat the analysis for those compounds detected. If the results of the second analysis confirm the initial results, then these constituents will form the basis for compliance monitoring. If the owner or operator does not resample for the compounds found pursuant to (g)(ii) of this subsection, the dangerous constituents found during this initial Appendix IX analysis will form the basis for compliance monitoring.

(iv) Within ninety days, submit to the department an application for a permit modification to establish a compliance monitoring program meeting the requirements of subsection (10) of this section. The application must include the following information:

(A) An identification of the concentration or any Appendix IX constituent detected in the ground water at each monitoring well at the compliance point;

(B) Any proposed changes to the ground water monitoring system at the facility necessary to meet the requirements of subsection (10) of this section;

(C) Any proposed additions or changes to the monitoring frequency, sampling and analysis procedures or

methods, or statistical methods used at the facility necessary to meet the requirements of subsection (10) of this section;

(D) For each dangerous constituent detected at the compliance point, a proposed concentration limit under subsection (5)(a)(i) or (ii) of this section, or a notice of intent to seek an alternate concentration limit under subsection (5)(b) of this section; and

(v) Within one hundred eighty days, submit to the department:

(A) All data necessary to justify and alternate concentration limit sought under subsection (5)(b) of this section; and

(B) An engineering feasibility plan for a corrective action program necessary to meet the requirement of subsection (11) of this section unless:

(I) All dangerous constituents identified under (g)(ii) of this subsection are listed in Table I of subsection (5) of this section and their concentrations do not exceed the respective values given in that Table; or

(II) The owner or operator has sought an alternate concentration limit under subsection (5)(b) of this section for every dangerous constituent identified under (g)(ii) of this subsection.

(vi) If the owner or operator determines, pursuant to (f) of this subsection, that there is a statistically significant difference for chemical parameters or dangerous constituents specified pursuant to (a) of this subsection at any monitoring well at the compliance point, he or she may demonstrate that a source other than a regulated unit caused the contamination or that the detection is an artifact caused by an error in sampling, analysis, or statistical evaluation or natural variation in the ground water. The owner operator may make a demonstration under this subsection in addition to, or in lieu of, submitting a permit modification application under (g)(iv) of this subsection; however, the owner or operator is not relieved of the requirement to submit a permit modification application within the time specified in (g)(iv) of this subsection unless the demonstration made under this subsection successfully shows that a source other than a regulated unit caused the increase, or that the increase resulted from error in sampling, analysis, or evaluation. In making a demonstration under this subsection, the owner or operator must:

(A) Notify the department in writing within seven days of determining statistically significant evidence of contamination at the compliance point that he intends to make a demonstration under this subsection;

(B) Within ninety days, submit a report to the department which demonstrates that a source other than a regulated unit caused the contamination or that the contamination resulted from error in sampling, analysis, or evaluation;

(C) Within ninety days, submit to the department an application for a permit modification to make any appropriate changes to the detection monitoring program facility; and

(D) Continue to monitor in accordance with the detection monitoring program established under this section.

(h) If the owner or operator determines that the detection monitoring program no longer satisfies the requirements of this section, he or she must, within ninety days, submit an application for a permit modification to make any appropriate changes to the program.

(10) Compliance monitoring program. An owner or operator required to establish a compliance monitoring program under this section must, at a minimum, discharge the responsibilities described in this subsection.

(a) The owner or operator must monitor the ground water to determine whether regulated units are in compliance with the ground water protection standard under subsection (3) of this section. The department will specify the ground water protection standard in the facility permit, including:

(i) A list of the dangerous constituents and parameters identified under subsection (4) of this section;

(ii) Concentration limits under subsection (5) of this section for each of those dangerous constituents and parameters;

(iii) The compliance point under subsection (6) of this section; and

(iv) The compliance period under subsection (7) of this section.

(b) The owner or operator must install a ground water monitoring system at the compliance point as specified under subsection (6) of this section. The ground water monitoring system must comply with subsection (8)(a)(ii), (b), and (c) of this section.

(c) The department will specify the sampling procedures and statistical methods appropriate for the constituents and the facility, consistent with subsection (8)(g) and (h) of this section.

(i) The owner or operator must conduct a sampling program for each chemical parameter or dangerous constituent in accordance with subsection (8) (g) of this section.

(ii) The owner or operator must record ground water analytical data as measured and in form necessary for the determination of statistical significance under subsection (8)(h) of this section for the compliance period of the facility.

(d) The owner or operator must determine whether there is statistically significant evidence of increased contamination for any chemical parameter or dangerous constituent specified in the permit, pursuant to (a) of this subsection, at a frequency specified under (f) of this subsection.

(i) In determining whether statistically significant evidence of increased contamination exists, the owner or operator must use the method(s) specified in the permit under subsection (8)(h) of this section. The method(s) must compare data collected at the compliance point(s) to a concentration limit developed in accordance with subsection (5) of this section.

(ii) The owner or operator must determine whether there is statistically significant evidence of increased contamination at each monitoring well at the compliance point within a reasonable time period after completion of sampling. The department will specify that time period in the facility permit, after considering the complexity of

the statistical test and the availability of laboratory facilities to perform the analysis of ground water samples.

(e) The owner or operator must determine the rate and direction of ground water flow in the uppermost aquifer at least annually.

(f) The department will specify the frequencies for collecting samples and conducting statistical tests to determine statistically significant evidence of increased contamination in accordance with subsection (8)(g) of this section. A sequence of at least four samples from each well (background and compliance wells) must be collected at least semiannually during the compliance period of the facility.

(g) The owner or operator must analyze samples from all monitoring wells at the compliance point for all constituents contained in Appendix IX of Part 264 at least annually to determine whether additional dangerous constituents are present in the uppermost aquifer and, if so, at what concentration, pursuant to procedures in (f) of this subsection. If the owner or operator finds Appendix IX constituents in the ground water that are not already identified in the permit as monitoring constituents, the owner or operator may resample within one month and repeat the Appendix IX analysis. If the second analysis confirms the presence of new constituents, the owner or operator must report the concentration of these additional constituents to the department within seven days after the completion of the second analysis and add them to the monitoring list. If the owner or operator chooses not to resample, then he or she must report the concentrations of these additional constituents to the department within seven days after completion of the initial analysis and add them to the monitoring list. If the owner or operator determines, pursuant to (d) of this subsection, that any concentration limits under subsection (5) of this section are being exceeded at any monitoring well at the point of compliance, he must:

(i) Notify the department of this finding in writing within seven days. The notification must indicate what concentration limits have been exceeded;

(ii) Submit to the department an application for a permit modification to establish a corrective action program meeting the requirements of subsection (11) of this section, within ninety days, or within sixty days if an engineering feasibility study has been previously submitted to the department under subsection (9)(h)(v) of this section. For regulated units managing EHW, time frames of sixty days and forty-five days, respectively will apply. However, if the department finds that the full extent of the ninety/sixty-day or the sixty/forty-five-day time periods will increase the likelihood to cause a threat to public health, or the environment, it can at its discretion reduce their duration. In specifying shorter limits, the department will consider the following factors:

(A) The physical and chemical characteristics of the dangerous constituents and parameters in the ground water;

(B) The hydrogeological characteristics of the facility and of the surrounding land;

(C) The rate of movement and direction of flow of the affected ground water;

(D) The proximity to and withdrawal rates of ground water users downgradient; and

(E) The current and future uses of ground water in the concerned area; and

(iii) The application must at a minimum include the following information:

(A) A detailed description of corrective actions that will achieve compliance with the ground water protection standard specified in the permit; and

(B) A plan for a ground water monitoring program that will demonstrate the effectiveness of the corrective action.

(i) If the owner or operator determines, pursuant to (d) of this subsection, that the ground water concentration limits under this section are being exceeded at any monitoring well at the point of compliance, he may demonstrate that a source other than a regulated unit caused the contamination or that the detection is an artifact caused by an error in sampling, analysis, or statistical evaluation or natural variation in the ground water. In making a demonstration under this subsection, the owner or operator must:

(i) Notify the department in writing within seven days that he intends to make a demonstration under this subsection;

(ii) Within forty-five days, submit a report to the department which demonstrates that a source other than a regulated unit caused the standard to be exceeded or that the apparent noncompliance with the standards resulted from error in sampling, analysis, or evaluation;

(iii) Within forty-five days, submit to the department an application for a permit modification to make appropriate changes to the compliance monitoring program at the facility; and

(iv) Continue to monitor in accord with the compliance monitoring program established under this section.

(j) If the owner or operator determines that the compliance monitoring program no longer satisfies the requirements of this section, he must, within forty-five days, submit an application for a permit modification to make any appropriate changes to the program.

(11) Corrective action program. An owner or operator required to establish a corrective action program under this section must, at a minimum, discharge the responsibilities described in this subsection.

(a) The owner or operator must take corrective action to ensure that regulated units are in compliance with the ground water protection standard under subsection (3) of this section. The department will specify the ground water protection standard in the facility permit, including:

(i) A list of the dangerous constituents and parameters identified under subsection (4) of this section;

(ii) Concentration limits under subsection (5) of this section, for each of those dangerous constituents and parameters;

(iii) The compliance point under subsection (6) of this section; and

(iv) The compliance period under subsection (7) of this section.

(b) The owner or operator must implement a corrective action program that prevents dangerous constituents and parameters from exceeding their respective concentration limits at the compliance point by removing the dangerous waste constituents and parameters or treating them in place. The permit will specify the specific measures that will be taken.

(c) The owner or operator must begin corrective action within a reasonable time period after the ground water protection standard is exceeded. The department will specify that time period in the facility permit. If a facility permit includes a corrective action program in addition to a compliance monitoring program, the permit will specify when the corrective action will begin and such a requirement will operate in lieu of subsection (10)(i)(ii) of this section.

(d) In conjunction with a corrective action program, the owner or operator must establish and implement a ground water monitoring program to demonstrate the effectiveness of the corrective action program. Such a monitoring program may be based on the requirements for a compliance monitoring program under subsection (10) of this section, and must be as effective as that program in determining compliance with the ground water protection standard under subsection (3) of this section, and in determining the success of a corrective action program under (e) of this subsection, where appropriate.

(e) In addition to the other requirements of this section, the owner or operator must conduct a corrective action program to remove or treat in place any dangerous constituents or parameters under subsection (4) of this section, that exceed concentration limits under subsection (5) of this section, in ground water between the compliance point under subsection (6) of this section, and the downgradient facility property boundary. The permit will specify the measures to be taken.

(i) Corrective action measures under this subsection must be initiated at the effective date of the modified permit and completed without time delays considering the extent of contamination.

(ii) Corrective action measures under this subsection may be terminated once the concentration of dangerous constituents and parameters under subsection (4) of this section, is reduced to levels below their respective concentration limits under subsection (5) of this section.

(f) The owner or operator must continue corrective action measures during the compliance period to the extent necessary to ensure that the ground water protection standard is not exceeded. If the owner or operator is conducting corrective action at the end of the compliance period, he must continue that corrective action for as long as necessary to achieve compliance with the ground water protection standard. The owner or operator may terminate corrective action measures taken beyond the period equal to the active life of the waste management area (including the closure period) if he can demonstrate, based on data from the ground water monitoring program under (d) of this subsection, that

the ground water protection standard of subsection (3) of this section, has not been exceeded for a period of three consecutive years.

(g) The owner or operator must report in writing to the department on the effectiveness of the corrective action program. The owner or operator must submit these reports semiannually.

(h) If the owner or operator determines that the corrective action program no longer satisfies the requirements of this section, he must, within forty-five days, submit an application for a permit modification to make any appropriate changes to the program.

(12) Corrective action for solid waste management units.

(a) The owner or operator of a facility seeking a permit for the treatment, storage, or disposal of dangerous waste must institute corrective action as necessary to protect human health and the environment for all releases of dangerous waste or constituents from any solid waste management unit at the facility, regardless of the time at which waste was placed in such unit.

(b) Corrective action will be specified in the permit. The permit will contain schedules of compliance for such corrective action (where such corrective action cannot be completed prior to issuance of the permit) and assurances of financial responsibility for completing such corrective action.

(c) The owner or operator must implement corrective actions beyond the facility property boundary, where necessary to protect human health and the environment, unless the owner or operator demonstrates to the satisfaction of the department that, despite the owner's or operator's best efforts, the owner or operator was unable to obtain the necessary permission to undertake such actions. The owner/operator is not relieved of all responsibility to clean up a release that has migrated beyond the facility boundary where off-site access is denied. On-site measures to address such releases will be determined on a case-by-case basis. Assurances of financial responsibility for such corrective action must be provided.

[Statutory Authority: Chapters 70.105 and 70.105D RCW, 40 CFR Part 271.3 and RCRA § 3006 (42 U.S.C. 3251), 91-07-005 (Order 90-42), § 173-303-645, filed 3/7/91, effective 4/7/91. Statutory Authority: Chapter 70.105 RCW, 89-02-059 (Order 88-24), § 173-303-645, filed 1/4/89; 84-09-088 (Order DE 83-36), § 173-303-645, filed 4/18/84.]

WAC 173-303-650 Surface impoundments. (1) Applicability. The regulations in this section apply to owners and operators of facilities that use surface impoundments to treat, store, or dispose of dangerous waste.

(2) Design and operating requirements.

(a)(i) A surface impoundment (except for an existing portion of a surface impoundment) must have a liner that is designed, constructed, and installed to prevent any migration of wastes out of the impoundment to the adjacent subsurface soil or ground water or surface water at any time during the active life (including the closure period) of the impoundment. The liner may be constructed of materials that may allow wastes to migrate into the liner (but not into the adjacent subsurface

soil or ground water or surface water) during the active life of the facility, provided that the impoundment is closed in accordance with subsection (6)(a)(i) of this section. For impoundments that will be closed in accordance with subsection (6)(a)(ii) of this section, the liner must be constructed of materials that can prevent wastes from migrating into the liner 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 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;

(C) Installed to cover all surrounding earth likely to be in contact with the waste or leachate; and

(D) For EHW management, the owner or operator shall submit an engineering report with his permit application under WAC 173-303-806(4) stating the basis for selecting the liner(s). The report shall be certified by a licensed professional engineer.

(ii) The owner or operator of a new surface impoundment installed after October 31, 1984, and in which liquid EHW is managed must:

(A) Install a double lined system which incorporates the specifications of subsection (3)(a), (b), and (c) of this section; and

(B) Must comply with either the ground water monitoring requirements of WAC 173-303-645, or the unsaturated zone monitoring requirements of WAC 173-303-655(6).

(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 alternate design and operating practices, together with location characteristics, will prevent the migration of any dangerous constituents listed in WAC 173-303-9905, or which otherwise cause his wastes to be regulated under this chapter, 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 impoundment 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) A surface impoundment must be designed, constructed, maintained, and operated to prevent overtopping resulting from normal or abnormal operations; overfilling; wind and wave action; rainfall; run-on; malfunctions of level controllers, alarms, and other equipment; and human error.

(d) A surface impoundment must be designed so that any flow of waste into the impoundment can be immediately shut off in the event of overtopping or liner failure.

(e) A surface impoundment must be designed to repel birds.

(f) A surface impoundment must have dikes that are designed, constructed, and maintained with sufficient structural integrity to prevent their failure. In ensuring structural integrity, it must not be presumed that the liner system will function without leakage during the active life of the unit.

(g) Earthen dikes must be kept free of:

(i) Perennial woody plants with root systems which could weaken its structural integrity; and

(ii) Burrowing mammals which could weaken its structural integrity or create leaks through burrows.

(h) Earthen dikes must have a protective cover, such as grass, shale or rock to minimize wind and water erosion and to preserve their structural integrity.

(i) 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.

(3) Double-lined surface impoundments; exemption from WAC 173-303-645, ground water protection requirements.

(a) Except as provided in subsection (2)(a)(ii) of this section, the owner or operator of a double-lined surface impoundment is not subject to regulation under WAC 173-303-645 if the following conditions are met:

(i) The impoundment (including its underlying liners) must be located entirely above the seasonal high water table;

(ii) The impoundment must be underlain by two liners which are designed and constructed in a manner that prevents the migration of liquids into or out of the space between the liners. Both liners must meet all the specifications of subsection (2)(a)(i) of this section;

(iii) A leak detection system must be designed, constructed, maintained, and operated between the liners to detect any migration of liquids into the space between the liners; and

(iv) A leachate detection, collection and removal system must be designed and operated to remove accumulated liquids from the system as quickly as possible so as to avoid unnecessary buildup of hydrostatic pressure in the system.

(b) If liquid leaks into the leak detection system, the owner or operator must:

(i) Notify the department of the leak in writing within seven days after detecting the leak; and

(ii)(A) Within a period of time specified in the permit, remove accumulated liquid, repair or replace the liner which is leaking to prevent the migration of liquids through the liner, and obtain a certification from a qualified engineer that, to the best of his knowledge and opinion, the leak has been stopped; or

(B) If a detection monitoring program pursuant to WAC 173-303-645(9) has already been established in the permit (to be complied with only if a leak occurs),

begin to comply with that program and any other applicable requirements of WAC 173-303-645 within the period of time specified in the permit.

(c) 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.

(4) Monitoring and inspection.

(a) During construction and installation, liners (except in the case of existing portions of surface impoundments exempt from subsection (2)(a)(i) 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 surface impoundment 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 overtopping control systems;

(ii) Sudden drops in the level of the impoundment's contents;

(iii) The presence of liquids in leak detection systems, where installed to comply with subsection (3) of this section; and

(iv) Severe erosion or other signs of deterioration in dikes or other containment devices.

(c) Prior to the issuance of a permit, and after any extended period of time (at least six months) during which the impoundment was not in service, the owner or operator must obtain a certification from a qualified engineer that the impoundment's dike, including that portion of any dike which provides freeboard, has structural integrity. The certification must establish, in particular, that the dike:

(i) Will withstand the stress of the pressure exerted by the types and amounts of wastes to be placed in the impoundment; and

(ii) Will not fail due to scouring or piping, without dependence on any liner system included in the surface impoundment construction.

(5) Emergency repairs; contingency plans.

(a) A surface impoundment must be removed from service in accordance with (b) of this subsection when:

(i) Unexpected changes of liquid levels occur; or

(ii) The dike leaks.

(b) When a surface impoundment must be removed from service as required by (a) of this subsection, the owner or operator must:

(i) Immediately shut off the flow or stop the addition of wastes into the impoundment;

(ii) Immediately contain any surface leakage which has occurred or is occurring;

(iii) Immediately stop the leak;

(iv) Take any other necessary steps to stop or prevent catastrophic failure;

(v) Empty the impoundment, if a leak cannot be stopped by any other means; and

(vi) Notify the department of the problem in writing within seven days after detecting the problem.

(c) As part of the contingency plan required in WAC 173-303-340 through 173-303-360, the owner or operator must specify:

(i) A procedure for complying with the requirements of (b) of this subsection; and

(ii) A containment system evaluation and repair plan describing: Testing and monitoring techniques; procedures to be followed to evaluate the integrity of the containment system in the event of a possible failure; description of a schedule of actions to be taken in the event of a possible failure; and the repair techniques and materials (and their availability) to be used in the event of leakage due to containment system failure or deterioration which does not require the impoundment to be removed from service.

(d) No surface impoundment that has been removed from service in accordance with the requirements of this section may be restored to service unless the portion of the impoundment which was failing is repaired and the following steps are taken:

(i) If the impoundment was removed from service as the result of actual or imminent dike failure, the dike's structural integrity must be recertified in accordance with subsection (4)(c) of this section;

(ii) If the impoundment was removed from service as the result of a sudden drop in the liquid level, then:

(A) For any existing portion of the impoundment, a liner must be installed in compliance with subsection (2)(a)(i) or (3) of this section; and

(B) For any other portion of the impoundment, the repaired liner system must be certified by a qualified engineer as meeting the design specifications approved in the permit.

(e) A surface impoundment that has been removed from service in accordance with the requirements of this section and that is not being repaired must be closed in accordance with the provisions of subsection (6) of this section.

(6) Closure and post-closure care.

(a) At closure, the owner or operator must:

(i) Remove or decontaminate all dangerous waste and dangerous waste residues, contaminated containment system components (liners, etc.), contaminated subsoils, and structures and equipment contaminated with dangerous waste and leachate, and manage them as dangerous waste; or

(ii) If the surface impoundment will be closed as a landfill, except that this option is prohibited if EHW would remain in the closed unit(s):

(A) Eliminate free liquids by removing liquid wastes or solidifying the remaining wastes and waste residues;

(B) Stabilize remaining wastes to a bearing capacity sufficient to support a final cover; and

(C) Cover the surface impoundment with a final cover designed and constructed to:

(I) Provide long-term minimization of the migration of liquids through the closed impoundment with a material that has a permeability less than or equal to the permeability of any bottom liner system or natural subsoils present;

(II) Function with minimum maintenance;

(III) Promote drainage and minimize erosion or abrasion of the final cover; and

(IV) Accommodate settling and subsidence so that the cover's integrity is maintained.

(b) If some waste residues or contaminated materials are left in place at final closure (except that no EHW may ever be left in place), the owner or operator must comply with all post-closure requirements contained in WAC 173-303-610 (7), (8), (9), and (10), including maintenance and monitoring throughout the post-closure care period (specified in the permit). 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 subsection (3) of this section, where such a system is present between double liner systems;

(iii) Maintain and monitor the ground water monitoring system and comply with all applicable requirements of WAC 173-303-645; and

(iv) Prevent run-on and run-off from eroding or otherwise damaging the final cover.

(c)(i) If an owner or operator plans to close a surface impoundment in accordance with (a)(i) of this subsection, and the impoundment does not comply with the liner requirements of subsection (2)(a)(i) of this section, and is not exempt from them in accordance with subsection (2)(b) of this section, then:

(A) The closure plan for the impoundment under WAC 173-303-610(3) must include both a plan for complying with (a)(i) of this subsection, and a contingent plan for complying with (a)(ii) of this subsection in case not all contaminated subsoils can be practicably removed at closure; and

(B) The owner or operator must 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 173-303-620 (3) and (5) for closure and post-closure care of an impoundment subject to (c) of 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)(i) of this subsection.

(d) During the post-closure care period, if liquids leak into a leak detection system installed under subsection (3) of this section, the owner or operator must notify the department of the leak in writing within seven days after detecting the leak. The department will then modify the permit to require compliance with applicable requirements of WAC 173-303-645, or, if so requested by the

owner or operator, to require removal of all materials in accordance with (a)(i) of this subsection.

(7) Special requirements for ignitable or reactive waste. Ignitable or reactive waste must not be placed in a surface impoundment, unless:

(a) The waste is treated, rendered, or mixed before or immediately after placement in the impoundment so that:

(i) The resulting waste, mixture, or dissolution of material no longer meets the definition of ignitable or reactive waste under WAC 173-303-090; and

(ii) WAC 173-303-395 (1)(b) is complied with; or

(b) The waste is managed in such a way that it is protected from any material or conditions which may cause it to ignite or react; or

(c) The surface impoundment is used solely for emergencies.

(8) Special requirements for incompatible wastes. Incompatible wastes and materials must not be placed in the same surface impoundment, unless WAC 173-303-395 (1)(b) is complied with.

(9) Special requirements for dangerous wastes F020, F021, F022, F023, F026, and F027.

(a) The wastes F020, F021, F022, F023, F026, or F027 must not be placed in a surface impoundment unless the owner or operator operates the surface impoundment in accordance 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 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 techniques.

(b) The department may determine that additional design, operating, and monitoring requirements are necessary 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.

[Statutory Authority: Chapters 70.105 and 70.105D RCW, 40 CFR Part 271.3 and RCRA § 3006 (42 U.S.C. 3251). 91-07-005 (Order 90-42), § 173-303-650, filed 3/7/91, effective 4/7/91. Statutory Authority: Chapter 70.105 RCW. 88-18-083 (Order 88-29), § 173-303-650, filed 9/6/88; 88-07-039 (Order 87-37), § 173-303-650, filed 3/11/88; 86-12-057 (Order DE-85-10), § 173-303-650, filed 6/3/86; 84-09-088 (Order DE 83-36), § 173-303-650, filed 4/18/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-650, filed 2/10/82.]

WAC 173-303-680 Miscellaneous units. (1) Applicability. The requirements of this section apply to owners and operators of facilities that treat, store, or dispose of dangerous waste in miscellaneous units, except as WAC 173-303-600 provides otherwise.

(2) Environmental performance standards. A miscellaneous unit must be located, designed, constructed, operated, maintained, and closed in a manner that will ensure protection of human health and the environment. Permits for miscellaneous units are to contain such terms and provisions as necessary to protect human health and the environment, including, but not limited to, as appropriate, design and operating requirements, detection and monitoring requirements, and requirements for responses to releases of dangerous waste or dangerous constituents from the unit. Permit terms and provisions shall include those requirements in WAC 173-303-630 through 173-303-670, 173-303-806, and 40 CFR Part 146 that are appropriate for the miscellaneous units being permitted. Protection of human health and the environment includes, but is not limited to:

(a) Prevention of any releases that may have adverse effects on human health or the environment due to migration of wastes constituents in the ground water or subsurface environment, considering:

(i) The volume and physical and chemical characteristics of the waste in the unit, including its potential for migration through soil, liners, or other containing structures;

(ii) The hydrologic and geologic characteristics of the unit and the surrounding area;

(iii) The existing quality of ground water, including other sources of contamination and their cumulative impact on the ground water;

(iv) The quantity and direction of ground water flow;

(v) The proximity to and withdrawal rates of current and potential ground water users;

(vi) The patterns of land use in the region;

(vii) The potential for deposition or migration of waste constituents into subsurface physical structures, and into the root zone of food-chain crops and other vegetation;

(viii) The potential for health risks caused by human exposure to waste constituents; and

(ix) The potential for damage to domestic animals, wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents.

(b) Prevention of any release that may have adverse effects on human health or the environment due to migration of waste constituents in surface water, or wetlands or on the soil surface considering:

(i) The volume and physical and chemical characteristics of the waste in the unit;

(ii) The effectiveness and reliability of containing, confining, and collecting systems and structures in preventing migration;

(iii) The hydrologic characteristics of the unit and the surrounding area, including the topography of the land around the unit;

(iv) The patterns of precipitation in the region;

(v) The quantity, quality, and direction of ground water flow;

(vi) The proximity of the unit to surface waters;

(vii) The current and potential uses of nearby surface waters and any water quality standards established for those surface waters;

(viii) The existing quality of surface waters and surface soils, including other sources of contamination and their cumulative impact on surface waters and surface soils;

(ix) The patterns of land use in the region;

(x) The potential for health risks caused by human exposure to waste constituents; and

(xi) The potential for damage to domestic animals, wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents.

(c) Prevention of any release that may have adverse effects on human health or the environment due to migration of waste constituents in the air, considering:

(i) The volume and physical and chemical characteristics of the waste in the unit, including its potential for the emission and dispersal of gases, aerosols and particulates;

(ii) The effectiveness and reliability of systems and structures to reduce or prevent emissions of dangerous constituents to the air;

(iii) The operating characteristics of the unit;

(iv) The atmospheric, meteorologic, and topographic characteristics of the unit and the surrounding area;

(v) The existing quality of the air, including other sources of contamination and their cumulative impact on the air;

(vi) The potential for health risks caused by human exposure to waste constituents; and

(vii) The potential for damage to domestic animals, wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents.

(3) Monitoring, analysis, inspection, response, reporting, and corrective action. Monitoring, testing, analytical data, inspections, response, and reporting procedures and frequencies must ensure compliance with subsection (2) of this section, WAC 173-303-320, 173-303-340(1), 173-303-380(3), 173-303-390 (1) and (3), and 173-303-645(12) as well as meet any additional requirements needed to protect human health and the environment as specified in the permit.

(4) Postclosure care. A miscellaneous unit that is a disposal unit must be maintained in a manner that complied with subsection (2) of this section during the postclosure care period. In addition, if a treatment or storage unit has contaminated soils or ground water that cannot be completely removed or decontaminated during closure, then that unit must also meet the requirements of subsection (2) of this section during postclosure care. The postclosure plan under WAC 173-303-610(8) must specify the procedures that will be used to satisfy this requirement.

[Statutory Authority: Chapters 70.105 and 70.105D RCW, 40 CFR Part 271.3 and RCRA § 3006 (42 U.S.C. 3251). 91-07-005 (Order 90-42), § 173-303-680, filed 3/7/91, effective 4/7/91.]

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 shall, when required by this chapter, obtain a permit covering the active life, closure period, ground water protection compliance period, and for any regulated unit (as defined in WAC 173-303-040), and 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 in accordance with WAC 173-303-800 through 173-303-840.

(3) TSD facility permits will be granted only if the objectives of the siting and performance standards set forth in WAC 173-303-420 and 173-303-283 are met.

(4) Permits shall 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 shall 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.

(8) Each permit issued under this chapter shall contain terms and conditions as the department determines necessary to protect human health and the environment.

[Statutory Authority: Chapters 70.105 and 70.105D RCW, 40 CFR Part 271.3 and RCRA § 3006 (42 U.S.C. 3251). 91-07-005 (Order 90-42), § 173-303-800, filed 3/7/91, effective 4/7/91. Statutory Authority: Chapter 70.105 RCW. 88-18-083 (Order 88-29), § 173-303-800, filed 9/6/88; 88-07-039 (Order 87-37), § 173-303-800, filed 3/11/88; 84-09-088 (Order DE 83-36), § 173-303-800, filed 4/18/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-800, filed 2/10/82.]

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, shall 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 shall 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. 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, shall 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; and

(vii) WAC 173-303-390(1), unmanifested waste reports;

(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 dangerous wastes shall have a permit by rule, except as provided in (b) of this subsection, if he:

(i) Has a NPDES permit, state waste discharge permit, pretreatment permit (or written discharge authorization from the local sewerage authority) and the permit or authorization provides effluent limits for the hazardous constituents, and provides for the use of all known, available, and reasonable methods of prevention, control, and treatment of pollution pursuant to chapter 90.48 RCW, prior to discharge;

(ii) Complies with the conditions of that permit;

(iii) Complies 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 173-303-310, security;

(E) WAC 173-303-350, contingency plan and emergency procedures;

(F) WAC 173-303-360, emergencies;

(G) WAC 173-303-370, manifest system;

(H) WAC 173-303-380 (1)(d), operating record;

(I) WAC 173-303-390, facility reporting.

(b) The department may require the owner or operator of a totally enclosed treatment facility or an elementary neutralization or wastewater treatment unit subject to either (a) of this subsection to apply for and obtain a final facility permit 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.

[Statutory Authority: Chapters 70.105 and 70.105D RCW, 40 CFR Part 271.3 and RCRA § 3006 (42 U.S.C. 3251). 91-07-005 (Order 90-42), § 173-303-802, filed 3/7/91, effective 4/7/91. Statutory Authority: Chapter 70.105 RCW. 88-18-083 (Order 88-29), § 173-303-802, filed 9/6/88; 88-07-039 (Order 87-37), § 173-303-802, filed 3/11/88; 87-14-029 (Order DE-87-4), § 173-303-802, filed 6/26/87; 86-12-057 (Order DE-85-10), § 173-303-802, filed 6/3/86; 84-09-088 (Order DE 83-36), § 173-303-802, filed 4/18/84.]

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 shall notify the owner or operator in writing of the apparent deficiency. Such notice shall specify the grounds for the department's belief that the application is deficient. The owner or operator shall 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 shall 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, shall 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 shall 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 shall 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 shall 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 requirements 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 shall 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 shall 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, 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.

(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 an authorized state under comparable 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 or containers, 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.

(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; or

(e) A determination that the permit applicant has failed to satisfy the performance standards of WAC 173-303-283.

(9) Special waste facilities. If the department determines, pursuant to WAC 173-303-550 through 173-303-560, that interim status standards can be reduced, the department will issue a notice of interim status modification stating what standards will be applied. Failure to comply with the conditions and standards as stated in the notice of modification or with the requirements of this section shall form a basis for revoking the notice. Upon revocation of the notice of interim status modification by the department, the owner or operator shall be subject to all of the requirements applicable to interim status dangerous waste management facilities. Before issuing the notice of modification, the department shall provide public notice of its intent, shall allow thirty days for public comment, and shall hold a public hearing if there is a significant degree of public interest or there is written notice of opposition and the department receives a request for a hearing during the comment period. Notice of a public hearing shall be provided at least fifteen days in advance, and the public comment period shall be extended to include the date of the hearing if it will occur after the initial thirty-day comment period. Within fifteen days of the end of the public comment period the department shall, based on comments received, issue, modify and issue, or deny the notice of interim status modification.

[Statutory Authority: Chapters 70.105 and 70.105D RCW, 40 CFR Part 271.3 and RCRA § 3006 (42 U.S.C. 3251). 91-07-005 (Order 90-42), § 173-303-805, filed 3/7/91, effective 4/7/91. Statutory Authority: Chapter 70.105 RCW. 89-02-059 (Order 88-24), § 173-303-805, filed 1/4/89; 88-18-083 (Order 88-29), § 173-303-805, filed 9/6/88; 88-07-039 (Order 87-37), § 173-303-805, filed 3/11/88; 87-14-029 (Order DE-87-4), § 173-303-805, filed 6/26/87; 86-12-057 (Order DE-85-10), § 173-303-805, filed 6/3/86; 84-09-088 (Order DE 83-36), § 173-303-805, filed 4/18/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-805, filed 2/10/82.]

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;

(b) Special waste management facilities; and

(c) 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 shall complete, sign, and submit an application to the department. An application shall 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 shall consist of the information required in (a) through (i) 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 shall 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 shall 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 to be handled at the facility. At a minimum, these analyses shall 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) 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).

(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(8), 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; and

(E) Prevent undue exposure of personnel to dangerous waste (for example, protective clothing).

(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 shall 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 shall 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(5), 173-303-650(6), 173-303-655(8), 173-303-660(9), 173-303-665(6), 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 shall 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; and

(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).

(Note - For large TSD facilities the department will allow the use of other scales on a case-by-case basis.)

(ix) 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 surface impoundments, waste piles, land treatment units, and landfills 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 WAC 173-303-9905, 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 department 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 shall 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 shall 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 shall at a minimum:

(I) Define the local and regional hydrogeologic characteristics. The contingent ground water protection program shall be based on a sufficient understanding of site geology, hydrology, and other factors to allow evaluation of its adequacy by the department. Site characterization shall be performed in sufficient detail to provide, at a minimum, the following information: Site geostatigraphy; site hydrostratigraphy; identification of aquifers, aquitards, and aquicludes; flow models for each stratum (i.e., porus 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 shall include ranges of tested values: The provisions of WAC 173-303-806 (4)(a)(xx) and 173-303-645, shall 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 shall 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 shall 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 shall 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) shall 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 shall 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 shall 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 shall, 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 shall 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 shall, 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 shall 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 shall 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.

(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 or will be designed, constructed, operated and maintained to meet the requirements of WAC 173-303-650(2). This submission must address the following items as specified in WAC 173-303-650(2):

(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; and

(C) Structural integrity of dikes;

(iii) If any exemption from WAC 173-303-645 is sought, as provided by WAC 173-303-650(3), detailed plans and an engineering report explaining the location of the saturated zone in relation to the surface impoundment, and the design of a double-liner system that incorporates a leak detection system between the liners;

(iv) A description of how each surface impoundment, including the liner and cover systems and appurtenances for control of overtopping, will be inspected in order to meet the requirements of WAC 173-303-650 (4)(a) and (b). 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 pile is or will be designed, constructed, operated, and maintained to meet the requirements of WAC 173-303-660(2). This submission must address the following items as specified in WAC 173-303-660(2):

(A) The liner system (except for an existing portion of a pile), 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), the owner or operator must 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 hazardous constituents into the ground water or surface water at any future time;

(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) If an exemption from WAC 173-303-645 is sought as provided by WAC 173-303-660 (3) or (4), submit detailed plans and an engineering report describing how the requirements of WAC 173-303-660 (3)(a) or (4)(a) will be complied with;

(v) A description of how each waste pile, including the liner 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), 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); 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 shall 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 or will be designed, constructed, operated and maintained to comply with the requirements of WAC 173-303-665(2). This submission must address the following items as specified in WAC 173-303-665(2):

(A) The liner system and leachate collection and removal system (except for an existing portion of a landfill), 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 design 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;

(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) If an exemption from WAC 173-303-645 is sought, as provided by WAC 173-303-665(3), the owner or operator must submit detailed plans and an engineering report explaining the location of the saturated zone in relation to the landfill, the design of a double-liner system that incorporates a leak detection system between the liners, and a leachate collection and removal system above the liners;

(iv) A description of how each landfill, including the liner and cover systems, will be inspected in order to meet the requirements of WAC 173-303-665(4). This information should 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).

(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 shall 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 shall 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 shall be judged independently of the status of any other permit application or permit for the same facility or activity.

(9) **Recordkeeping.** Applicants shall 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 shall contain general permit conditions described in WAC 173-303-810.

(11) **Permit duration.**

(a) Final facility permits shall 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 shall not be extended beyond ten years, unless otherwise authorized under subsection (7) of this section.

(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.

(13) **Grounds for denial.** A permit application shall be denied 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 shall 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 special waste and recycling facility permits.** In lieu of issuing a final special waste or 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 or WAC 173-303-550 through 173-303-560 for special waste facilities.

[Statutory Authority: Chapters 70.105 and 70.105D RCW, 40 CFR Part 271.3 and RCRA § 3006 (42 U.S.C. 3251). 91-07-005 (Order 90-42), § 173-303-806, filed 3/7/91, effective 4/7/91. Statutory Authority: RCW 43.21A.080 and 70.105.210 et seq. 90-20-016, § 173-303-806, filed 9/21/90, effective 10/22/90. Statutory Authority: Chapter 70.105 RCW. 89-02-059 (Order 88-24), § 173-303-806, filed 1/4/89; 88-18-083 (Order 88-29), § 173-303-806, filed 9/6/88; 88-07-039 (Order 87-37), § 173-303-806, filed 3/11/88; 87-14-029 (Order DE-87-4), § 173-303-806, filed 6/26/87; 86-12-057 (Order DE-85-10), § 173-303-806, filed 6/3/86; 84-09-088 (Order DE 83-36), § 173-303-806, filed 4/18/84.]

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 shall 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, 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; 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, shall 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 shall 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).

(7) Certification. The applicant shall 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 shall 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 shall 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 shall 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 shall issue a notice of interim status modification granting such approval and specifying the conditions applicable to the trial burn. The notice of modification shall 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 shall 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.

(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 shall 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 shall proceed to issue a final facility permit in accordance with WAC 173-303-806. The permit shall include the trial burn plan, and shall 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 shall 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 shall 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 shall 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.

[Statutory Authority: Chapters 70.105 and 70.105D RCW, 40 CFR Part 271.3 and RCRA § 3006 (42 U.S.C. 3251). 91-07-005 (Order 90-42), § 173-303-807, filed 3/7/91, effective 4/7/91. Statutory Authority: Chapter 70.105 RCW. 84-09-088 (Order DE 83-36), § 173-303-807, filed 4/18/84.]

WAC 173-303-808 Demonstrations for dangerous waste land treatment final facility permits. (1) Purpose and applicability. This section is applicable to the owner/operator of a land treatment facility who must demonstrate that his proposed treatment will be successful. The purpose of this section is to allow the department to issue a land treatment demonstration permit.

(2) Permit issuance. The department may issue a land treatment demonstration permit either in advance of or as part of a final facility permit so that the owner/operator of a land treatment facility can make the demonstration required in WAC 173-303-655(3). If issued in advance of the final facility permit, the land treatment demonstration permit shall be issued as described in subsection (3) of this section, as a demonstration permit only. If issued as part of the final facility permit, the land treatment demonstration and final facility permit shall be issued as described in subsection (4) of this section, as a phased permit. The determination for which procedure to follow will be made by the department based on the information submitted by the owner/operator in Part B of the final facility permit application.

(3) Demonstration permit only.

(a) If the department finds that the Part B does not contain enough information regarding the proposed treatment to allow the department to establish permit conditions necessary for compliance with all requirements of WAC 173-303-655, it may issue a land treatment demonstration permit only. The demonstration permit will be issued in accordance with the decision-making procedures of WAC 173-303-840. The demonstration permit may be issued either as a treatment or disposal permit, will cover only the field test or laboratory analyses, shall contain only those requirements necessary to meet the standards in WAC 173-303-655(3), and shall provide a specific time period for the demonstration. The department may extend the demonstration period as a modification (or minor modification, if applicable) to the demonstration permit.

(b) Within thirty days (unless the department approves a later date) of the end of the treatment demonstration, the owner/operator shall submit a revised Part B to the department containing the results of the field tests or laboratory analyses and all data developed during the demonstration period. The department shall then use the information and Part B to determine whether or not there is adequate information to issue a final facility permit which will incorporate conditions sufficient to provide compliance with all requirements of WAC 173-303-655. If the information is adequate, the department will proceed under WAC 173-303-806 to issue a final facility permit. If the information is not adequate, the department may, as the situation warrants, either issue a modification to the demonstration permit in accordance with the procedures of subsection (3)(a) of this section, or deny the final facility permit application.

(4) Phased permit.

(a) The department may issue a two-phase final facility permit if it finds that, based on information submitted in Part B of the permit application, substantial (although incomplete and inconclusive) information exists upon which to base the issuance of a final facility permit. The phased permit will be issued in the same manner as a final facility permit under WAC 173-303-806, except that it shall contain a first phase for making a land treatment demonstration, and a second phase (to become effective after completion of the first phase) for establishing conditions for operation of the land treatment facility.

(b) If the department finds that a phased permit may be issued, it will establish, as requirements in the first phase of the facility permit, conditions for conducting the field tests or laboratory analyses. These permit conditions will include design and operating parameters (including the duration of the tests or analyses and, in the case of field tests, the horizontal and vertical dimensions of the treatment zone), monitoring procedures, post-demonstration cleanup activities, and any other conditions which the department finds may be necessary under WAC 173-303-655 (3)(c). The department will include conditions in the second phase of the facility permit to attempt to meet all WAC 173-303-655 requirements pertaining to unit design, construction, operation, and maintenance. The department will establish

these conditions in the second phase of the permit based upon the substantial but incomplete or inconclusive information contained in the Part B application.

(i) The first phase of the permit will be effective as provided in WAC 173-303-840 (8)(b).

(ii) The second phase of the permit will be effective as provided in (d) of this subsection.

(c) When the owner or operator who has been issued a two-phase permit has completed the treatment demonstration, he must submit to the department a certification, signed by a person authorized to sign a permit application or report under WAC 173-303-810(12), that the field tests or laboratory analyses have been carried out in accordance with the conditions specified in phase one of the permit for conducting such tests or analyses. The owner or operator must also submit all data collected during the field tests or laboratory analyses within thirty days of completion of those tests or analyses unless the department approves a later date.

(d) If the department determines that the results of the field tests or laboratory analyses meet the requirements of WAC 173-303-655(3), it will modify the second phase of the permit to incorporate any requirements necessary for operation of the facility in compliance with WAC 173-303-655, based upon the results of the field tests or laboratory analyses.

(i) This permit modification may proceed under WAC 173-303-830(4) or otherwise will proceed as a modification under WAC 173-303-830 (3)(a)(ii). If such modifications are necessary, the second phase of the permit will become effective only after those modifications have been made.

(ii) If no modifications of the second phase of the permit are necessary, the department will give notice of its final decision to the permit applicant and to each person who submitted written comments on the phased permit or who requested notice of the final decision on the second phase of the permit. The second phase of the permit then will become effective as specified in WAC 173-303-840 (8)(b).

(iii) If modifications under WAC 173-303-830(3) are necessary, the second phase of the permit will become effective only after those modifications have been made.

(e) If the department determines that the results of the field tests or laboratory analyses do not meet the requirements of WAC 173-303-655(3), the second phase of the permit will not become effective, and the department will, as the situation warrants, either:

(i) Modify the permit according to WAC 173-303-830(3) to allow for additional field tests or laboratory analyses; or

(ii) Proceed to terminate the permit according to WAC 173-303-840.

[Statutory Authority: Chapters 70.105, 70.105D RCW, 40 CFR Part 271.3 and RCRA § 3006 (42 U.S.C. 3251). 91-07-005 (Order 90-42), § 173-303-808, filed 3/7/91, effective 4/7/91. Statutory Authority: Chapter 70.105 RCW. 84-09-088 (Order DE 83-36), § 173-303-808, filed 4/18/84.]

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 shall 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 shall 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. The issuance of a permit does not convey any property rights of any sort, or any exclusive privilege. 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 shall 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 shall also furnish to the department, upon request, copies of records required to be kept by the permit.

(10) Inspection and entry. The permittee shall 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 shall 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.

(b) Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

(c) The permittee shall 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 shall 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 shall maintain all records of ground water quality and ground water surface elevations for the active life of the facility, and for the post-closure period as well.

(12) Signatory requirement. All applications, reports, or information submitted to the department shall be signed in accordance with this subsection and shall 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 shall 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 shall 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 shall 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 shall 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 shall be provided:

(a) Planned changes. The permittee shall 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

(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 shall 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) shall 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 shall be submitted no later than fourteen days following each scheduled date.

(f) Immediate reporting. The permittee shall immediately report any noncompliance which may endanger health or the environment. Information shall be provided orally to the department as soon as the permittee becomes aware of the circumstances. A written submission shall 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 shall 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 shall 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 shall 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 shall 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(5);

(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 the owner/operator indicates to the department the degree of harm if the information is made to the public.

(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 shall place the unsubstantiated information in the public file.

(e) The department will determine if the owner/operator's request meets the confidential information criteria.

[Statutory Authority: Chapters 70.105 and 70.105D RCW, 40 CFR Part 271.3 and RCRA § 3006 (42 U.S.C. 3251). 91-07-005 (Order 90-42), § 173-303-810, filed 3/7/91, effective 4/7/91. Statutory Authority: Chapter 70.105 RCW. 87-14-029 (Order DE-87-4), § 173-303-810, filed 6/26/87; 84-09-088 (Order DE 83-36), § 173-303-810, filed 4/18/84. Statutory Authority: RCW 70.95.260 and chapter 70.105 RCW. 82-05-023 (Order DE 81-33), § 173-303-810, filed 2/10/82.]

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. 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 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. When a transfer of ownership or operational control occurs, the old owner or operator shall 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 by the new owner or operator of compliance with the financial requirements, the department shall 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 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 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 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. 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. If cause does not exist under this subsection, the department shall 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 shall 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:

(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 receives information that was not available at the time of permit issuance and which would have justified the application of different permit conditions at the time of issuance;

(iii) New regulations. The standards or regulations on which the permit was based have been changed by statute, through promulgation of amended standards or regulations or by judicial decision after the permit was issued. Permits may be modified during their terms for this cause only when:

(A) The permit condition requested to be modified was based on an effective regulation; and

(B) The department has revised, withdrawn, or modified that portion of the regulation on which the permit condition was based; and either

(I) 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

(II) A permittee requests modification within ninety days after the date the regulation amendments are adopted;

(iv) Compliance schedules. The department 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; or

(xii) When a land treatment unit is not achieving complete treatment of dangerous constituents under its current permit conditions.

(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 173-303-806 (12) for final facility permits, and the department determines that modification or revocation and reissuance is appropriate; or

(ii) The department 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.

(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 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 173-303-806(4), 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 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 approval, the notification must be made within ninety calendar days after the department approves the request.

(C) Any person may request the department to review, and the department may for cause reject, any Class 1 modification. The department 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.

(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 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 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 173-303-806(4), 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 and to the appropriate units of state and local government as specified in WAC 173-303-840 (3)(e)(i)(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 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 shall 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 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 notifies the permittee of a thirty-day extension for a decision, the department 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 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 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 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 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 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 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 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 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 173-303-283 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 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 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 173-303-806(4), 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 and to the appropriate units of state and local government as specified in WAC 173-303-840 (3)(e)(i)(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 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 shall 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 must grant or deny the permit modification request according to the permit modification procedures of WAC 173-303-840. In addition, the department 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 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 shall 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 shall 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 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 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 and to appropriate units of state and local governments as specified in WAC 173-303-840 (3)(e)(i)(E). This notification must be made within seven days of submission of the authorization request.

(iii) The department shall approve or deny the temporary authorization as quickly as practical. To issue a temporary authorization, the department 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 or containers of restricted wastes 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 decision on a Class 2 permit modification in accordance with (b)(vi)(A)(IV) or (B)(IV) of this subsection; or

(B) The department 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 shall 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 shall 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 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 listed or identified wastes.

(i) The permittee is authorized to continue to manage wastes listed or identified as dangerous under WAC 173-303-070 if he or she:

(A) Was in existence as a dangerous waste facility with respect to the newly listed or identified waste on the effective date of the final rule listing or identifying the waste;

(B) Submits a Class 1 modification request on or before the date on which the waste becomes subject to the new requirements;

(C) Is in compliance with the standards of 40 CFR Part 265 (as referenced in WAC 173-303-400);

(D) In the case of Classes 2 and 3 modifications, also submits a complete permit modification request within

one hundred eighty days after the effective date of the rule listing or identifying the waste; and

(E) In the case of land disposal units, certifies that such unit is in compliance with all applicable Part 265 ground water monitoring and financial responsibility requirements (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. If the owner or operator fails to clarify compliance with these requirements, he or she shall 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 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 1
 - 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 1
- 7. Changes in ownership or operational control of a facility, provided the procedures of subsection (2)(b) of this section are followed 1

B. General Facility Standards

- 1. Changes to waste sampling or analysis methods:
 - a. To conform with agency guidance or regulations . 1
 - b. 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

Modifications	Class
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
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 shall 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	1
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	1
4. Changes in point of compliance	2
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	1

Modifications	Class
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	1
c. Changes in the expected year of final closure, where other permit conditions are not changed, with prior approval of the Director	1
d. Changes in procedures for decontamination of facility equipment or structures, with prior approval of the Director	1
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	1
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
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. 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

Modifications	Class
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 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, 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),	

Modifications	Class
with prior approval of the department. 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,	
-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
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
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

Modifications Class

Modifications Class

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

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

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

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:

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

Modifications	Class
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	
1. Changes to increase by more than 25% any of the following limits authorized in the permit: A thermal feed rate limit, a waste feed rate limit, or an organic chlorine feed rate limit. The 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 waste feed limit, or an organic chlorine feed rate limit. The 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 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 or particulate from	

Modifications	Class
the combustion gases, or by changing other features of the incinerator that could affect its capability to meet the regulatory performance standards. The 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 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 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 combustion gas temperature, minimum combustion gas residence time, or oxygen concentration in the secondary combustion chamber. The 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
6. Incineration of different wastes:	
a. If the waste contains a POHC that is more difficult to incinerate than authorized by the permit or if incineration of the waste requires compliance with different regulatory performance standards than specified in the permit. The 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 incinerate than authorized by the permit and if incineration 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 incineration during the shakedown period for determining operational readiness after construction, with the prior approval of the 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 Director	1

Modifications Class

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 Director 1

8. Substitution of an alternate type of fuel that is not specified in the permit 1

¹ Class 1 modifications requiring prior Agency approval.

(5) Permit termination. The department shall 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 shall 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 shall set forth interim requirements and the dates for their achievement as follows:

(i) The time between interim dates shall 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 shall 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 shall be written to require that no later than fourteen days following each interim date and the final date of compliance, the permittee shall notify the department in writing of its compliance or noncompliance with the interim or final requirements.

[Statutory Authority: Chapters 70.105 and 70.105D RCW, 40 CFR Part 271.3 and RCRA § 3006 (42 U.S.C. 3251), 91-07-005 (Order 90-42), § 173-303-830, filed 3/7/91, effective 4/7/91. Statutory Authority: Chapter 70.105 RCW, 89-02-059 (Order 88-24), § 173-303-830, filed 1/4/89; 87-14-029 (Order DE-87-4), § 173-303-830, filed 6/26/87; 84-09-088 (Order DE 83-36), § 173-303-830, filed 4/18/84. Statutory Authority: RCW 70.95.260 and chapter 70.105 RCW, 82-05-023 (Order DE 81-33), § 173-303-830, filed 2/10/82.]

WAC 173-303-9903 Discarded chemical products list.

DISCARDED CHEMICAL PRODUCTS LIST

Dangerous Waste No.	Substance	WDOE Hazard Designation	Reason for Designation*
ACUTELY DANGEROUS CHEMICAL PRODUCTS			
P023	Acetaldehyde, chloro-	EHW	B H
U001	Acetaldehyde	EHW	C
U034	Acetaldehyde, trichloro-	EHW	H
P002	Acetamide, N-(aminothioxomethyl)-	EHW	B
P057	Acetamide, 2-fluoro-	EHW	B H
P058	Acetic acid, fluoro-, sodium salt	EHW	A H
U144	Acetic acid, lead salt	EHW	D EP
P066	Acetimidic acid, N-[(methylcarbamoyl)oxy]thio-, methyl ester	EHW	B
U003	Acetonitrile	EHW	C I
P001	3-(alpha-Acetonyl-benzyl)-4-hydroxycoumarin and salts	EHW	A
P002	1-Acetyl-2-thiourea	EHW	B
U006	Acetyl chloride	EHW	C H O R
P003	Acrolein	EHW	X I
U007	Acrylamide	EHW	C
U008	Acrylic acid	EHW	C O I
U009	Acrylonitrile	EHW	C + I
P070	Aldicarb	EHW	B
P004	Aldrin	EHW	X H
P005	Allyl alcohol	EHW	B I
P006	Aluminum phosphide (R,T)	EHW	B R
P007	5-(Aminomethyl)-3-isoxazolol	EHW	B
P008	4-alpha-Aminopyridine	EHW	B
P009	Ammonium picrate	EHW	R
P119	Ammonium vanadate	EHW	B
U012	Aniline	EHW	C I
P010	Arsenic acid	EHW	B
P012	Arsenic (III) oxide	EHW	B +
P011	Arsenic (V) oxide	EHW	B
P011	Arsenic pentoxide	EHW	B
P012	Arsenic trioxide	EHW	B +
P038	Arsine, diethyl-	EHW	B
U015	Azaserine	EHW	C +
P054	Aziridine	EHW	B +
U010	Azirino(2',3':3,4)pyrrolo(1,2a)indole-4,7-dione, 6-amino-8[[aminocarbonyloxy)methyl]-1,1a,2,8,8a,8b-hexahydro-8a-methoxy-5-methyl-	EHW	B +
P013	Barium cyanide	EHW	A
U157	Benz[j]aceanthrylene, 1,2-dihydro-3-methyl-	EHW	H P
U017	Benzal chloride	EHW	D H
U018	Benz[a]anthracene	EHW	P +
U018	1,2-Benzanthracene	EHW	P +
U094	1,2-Benzanthracene, 7,12-dimethyl-	EHW	C P
U012	Benzenamine	EHW	C I
P024	Benzenamine, 4-chloro-	EHW	C H
U049	Benzenamine, 4-chloro-2-methyl-	EHW	H
U093	Benzenamine, N, N-dimethyl-4-(phenylazo)-	EHW	C +
U158	Benzenamine, 4,4-methylenebis(2-chloro-	EHW	H +
P077	Benzenamine, 4-nitro-	EHW	D ?
P028	Benzene, (chloromethyl)-	EHW	B H +
U019	Benzene	EHW	C + I
U038	Benzenoacetic acid, 4-chloro-alpha-(4-chlorophenyl)-alpha-hydroxy, ethyl ester	EHW	H
U030	Benzene, 1-bromo-4-phenoxy-	EHW	H
U037	Benzene, chloro-	EHW	B H I
U190	1,2-Benzenedicarboxylic acid anhydride	EHW	C
U070	Benzene, 1,2-dichloro-	EHW	B H
U071	Benzene, 1,3-dichloro-	EHW	B H
U072	Benzene, 1,4-dichloro-	EHW	B H
U017	Benzene, (dichloromethyl)-	EHW	D H
U223	Benzene, 1,3-diisocyanatomethyl-	EHW	B R
U239	Benzene, dimethyl-	EHW	C I
U201	1,3-Benzenediol	EHW	C
U127	Benzene, hexachloro-	EHW	H
U056	Benzene, hexahydro-	EHW	C I
U188	Benzene, hydroxy-	EHW	C
U220	Benzene, methyl-	EHW	C I
U105	Benzene, 1-methyl-2,4-dinitro	EHW	C
U106	Benzene, 1-methyl-2,6-dinitro-	EHW	C
U055	Benzene, (1-methylethyl)-	EHW	C I
U169	Benzene, nitro-	EHW	C I

Dangerous Waste No.	Substance	WDOE Hazard Designation	Reason for Designation*	Dangerous Waste No.	Substance	WDOE Hazard Designation	Reason for Designation*
U183	Benzene, pentachloro	EHW	H	U197	1,4-Cyclohexadienedione	EHW	C
U185	Benzene, pentachloronitro-	EHW	D H +	U056	Cyclohexane	EHW	C I
U020	Benzenesulfonic acid chloride	EHW	D H O R	U057	Cyclohexanone	EHW	C I
U020	Benzenesulfonyl chloride	EHW	D H O R	U130	1,3-Cyclopentadiene, 1,2,3,4,5,5-hexa-chloro-	EHW	X H
U207	Benzene, 1,2,4,5-tetrachloro-	EHW	D H	U058	Cyclophosphamide	EHW	C H + I
U023	Benzene, (trichloromethyl)-	EHW	H O R	U240	2,4-D, salts and esters	EHW	B H
P042	1,2-Benzenediol, 4-[1-hydroxy-2-(methyl-amino)ethyl]-	EHW	B	U060	DDD	EHW	C H +
P014	Benzenethiol	EHW	A	U061	DDT	EHW	X H +
U021	Benzidine	EHW	B +	U142	Decachlorooctahydro-1,3,4-metheno-2H-cyclobuta[c,d]-pentalen-2-one	EHW	X H
U022	Benzo[a]pyrene	EHW	P +	U062	Diallate	EHW	C H +
U022	3,4-Benzopyrene	EHW	P +	U133	Diamine	EHW	B + R
U197	p-Benzoquinone	EHW	C	U063	Dibenz[a,h]anthracene	EHW	A P +
U023	Benzotrithloride	EHW	H O R	U063	1,2:5,6-Dibenzanthracene	EHW	P + A
U050	1,2-Benzphenanthrene	EHW	P +	U064	1,2:7,8-Dibenzopyrene	EHW	P +
P028	Benzyl chloride	EHW	B H +	U064	Dibenz[a,i]pyrene	EHW	P +
P015	Beryllium dust	EHW	C +	U066	1,2-Dibromo-3-chloropropane	EHW	C H +
U085	2,2'-Bioxirane	EHW	B I	U062	S-(2,3-Dichloroallyl) diisopropylthiocarbamate	EHW	C H +
U021	1,1'-Biphenyl)-4,4'-diamine	EHW	B +	U070	o-Dichlorobenzene	EHW	B H
U073	(1,1'-Biphenyl)-4,4'-diamine, 3,3'-dichloro-	EHW	H +	U071	m-Dichlorobenzene	EHW	B H
U095	(1,1'-Biphenyl)-4,4'-diamine, 3,3'-dimethyl-	EHW	C +	U072	p-Dichlorobenzene	EHW	B H
U024	Bis(2-chloroethoxy) methane	EHW	C H	U073	3,3'-Dichlorobenzidine	EHW	H +
U027	Bis(2-chloroisopropyl) ether	EHW	C H O	U074	1,4-Dichloro-2-butene	EHW	C H I
P016	Bis(chloromethyl) ether	EHW	B H +	U075	Dichlorodifluoromethane	EHW	H
U246	Bromine cyanide	EHW	C H	U060	Dichloro diphenyl dichloroethane	EHW	C H +
P017	Bromoacetone	EHW	C H	U061	Dichloro diphenyl trichloroethane	EHW	X H +
U225	Bromoform	EHW	H	U078	1,1-Dichloroethylene	EHW	C H +
U030	4-Bromophenyl phenyl ether	EHW	H	U079	1,2-Dichloroethylene	EHW	D H
P018	Brucine	EHW	A	U025	Dichloroethyl ether	EHW	C H
U128	1,3-Butadiene, 1,1,2,3,4,4-hexachloro-	EHW	C H	U081	2,4-Dichlorophenol	EHW	D H
U035	Butanoic acid, 4-[bis(2-chloroethyl) amino] benzene-	EHW	H +	U082	2,6-Dichlorophenol	EHW	D H
U160	2-Butanone peroxide	EHW	B R	U240	2,4-Dichlorophenoxyacetic acid, salts and esters	EHW	B H
U053	2-Butenal	EHW	B I	P036	Dichlorophenylarsine	EHW	B H
U074	2-Butene, 1,4-dichloro-	EHW	C H I	U083	1,2-Dichloropropane	EHW	C H I
U032	Calcium chromate	EHW	C + EP	U084	1,3-Dichloropropene	EHW	C H
P021	Calcium cyanide	EHW	B	P037	Dieldrin	EHW	X H +
P123	Camphene, octachloro-	EHW	X H	U085	1,2,3,4-Diepoxybutane	EHW	B I
U178	Carbamic acid, methylnitroso-, ethyl ester	EHW	C +	P038	Diethylarsine	EHW	B
U176	Carbamide, N-ethyl-N-nitroso-	EHW	C +	P039	O,O-Diethyl S-[2-(ethylthio)ethyl] phosphorodithioate	EHW	A
U177	Carbamide, N-methyl-N-nitroso-	EHW	C +	U087	O,O-Diethyl-S-methyl-dithiophosphate	EHW	B
U219	Carbamide, thio-	EHW	C +	P041	Diethyl-p-nitrophenyl phosphate	EHW	A
P103	Carbamimidoseleonic acid	EHW	B	P040	O,O-Diethyl O-pyrazenyl phosphorothioate	EHW	A
U097	Carbamoyl chloride, dimethyl-	EHW	D H +	P043	Diisopropyl fluorophosphate	EHW	B H
P022	Carbon bisulfide	EHW	D I ?	P044	Dimethoate	EHW	A
P022	Carbon disulfide	EHW	D I ?	U092	Dimethylamine	EHW	C I
U156	Carbonochloridic acid, methyl ester	EHW	B H I	U093	Dimethylaminoazobenzene	EHW	C +
U033	Carbon oxyfluoride	EHW	B H R	U094	7,12-Dimethylbenz[a]anthracene	EHW	C P
U211	Carbon tetrachloride	EHW	C H +	U095	3,3'-Dimethylbenzidine	EHW	C +
P095	Carbonyl chloride	EHW	B H	U096	alpha, alpha-Dimethylbenzylhydroperoxide	EHW	C R
U033	Carbonyl fluoride	EHW	B H R	U097	Dimethylcarbamoyl chloride	EHW	D H +
U035	Chlorambucil	EHW	H +	U099	1,2-Dimethylhydrazine	EHW	C + I
U036	Chlordane, technical	EHW	X H	P045	3,3-Dimethyl-1-(methylthio)-2-butanone, O-[(methylamino)carbonyl] oxime	EHW	B
P033	Chlorine cyanide	EHW	A H	P071	O,O-Dimethyl O-p-nitrophenyl phosphorothioate	EHW	A
U026	Chloronaphazine	EHW	H +	P082	Dimethylnitrosamine	EHW	B +
P023	Chloroacetaldehyde	EHW	B H	P046	alpha, alpha-Dimethylphenethylamine	EHW	C
P024	p-Chloroaniline	EHW	C H	U103	Dimethyl sulfate	EHW	C O +
U037	Chlorobenzene	EHW	B H I	P047	4,6-Dinitro-o-cresol and salts	EHW	B
U039	4-Chloro-m-cresol	EHW	H	P034	4,6-Dinitro-o-cyclohexylphenol	EHW	C
U041	1-Chloro-2,3-epoxypropane	EHW	C H + I	P048	2,4-Dinitrophenol	EHW	B
U042	2-Chloroethyl vinyl ether	EHW	C H	U105	2,4-Dinitrotoluene	EHW	C
U044	Chloroform	EHW	C H +	U106	2,6-Dinitrotoluene	EHW	C
U046	Chloromethyl methyl ether	EHW	D H + I	P020	Dinoseb	EHW	B
U047	beta-Chloronaphthalene	EHW	D H	U109	1,2-Diphenylhydrazine	EHW	C
U048	o-Chlorophenol	EHW	D H	P035	Diphosphoramidate, octamethyl	EHW	?
P026	1-(o-Chlorophenyl)thiourea	EHW	A H	U110	Dipropylamine	EHW	C I
P027	3-Chloropropionitrile	EHW	B H	U111	Di-n-propylnitrosamine	EHW	C +
U049	4-Chloro-o-toluidine, hydrochloride	EHW	H	P039	Disulfoton	EHW	A
U032	Chromic acid, calcium salt	EHW	C + EP	P049	2,4-Dithiobiuret	EHW	A
U050	Chrysene	EHW	P +	P109	Dithiopyrophosphoric acid, tetraethyl ester	EHW	A
P029	Copper cyanides	EHW	B	P050	Endosulfan	EHW	X H
U052	Cresols	EHW	B	P088	Endothall	EHW	B
U052	Cresylic acid	EHW	B	P051	Endrin	EHW	X H
U053	Crotonaldehyde	EHW	B I	P042	Epinephrine	EHW	B
U055	Cummene	EHW	C I	U001	Ethanal	EHW	C
P030	Cyanides (soluble cyanide salts), not elsewhere specified	EHW	A	U174	Ethanamine, N-ethyl-N-nitroso-	EHW	C +
P031	Cyanogen	EHW	B I	P046	Ethanamine, 1,1-dimethyl-2-phenyl-	EHW	C
U246	Cyanogen bromide	EHW	C H				
P033	Cyanogen chloride	EHW	A H				

Dangerous Waste Regulations

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Dangerous Waste No.	Substance	WDOE Hazard Designation	Reason for Designation*	Dangerous Waste No.	Substance	WDOE Hazard Designation	Reason for Designation*
U067	Ethane, 1,2-dibromo-	EHW	CH +	U149	Malononitrile	EHW	C
U076	Ethane, 1,1-dichloro-	EHW	D H	U151	Mercury	EHW	EP
U077	Ethane, 1,2-dichloro-	EHW	D H	P092	Mercury, (acetato-O)phenyl-	EHW	B
U114	1,2-Ethanediybiscarbamodithioic acid	EHW	B	P065	Mercury fulminate	EHW	R ?
U131	Ethane, 1,1,1,2,2,2-hexachloro-	EHW	H	U152	Methacrylonitrile	EHW	B I
U024	Ethane, 1,1'-[methylenebis(oxy)]bis[2-chloro-	EHW	CH	U092	Methanamine, N-methyl-	EHW	C I
U247	Ethane, 1,1,1-trichloro-2,2-bis(p-methoxy phenyl)	EHW	D H	P016	Methane, oxybis(chloro)-	EHW	B H +
U003	Ethanenitrile	EHW	C	P112	Methane, tetranitro-	EHW	A R
U025	Ethane, 1,1'-oxybis[2-chloro-	EHW	CH	U029	Methane, bromo-	EHW	H
U184	Ethane, pentachloro-	EHW	A H	U045	Methane, chloro-	EHW	H I
U208	Ethane, 1,1,1,2-tetrachloro-	EHW	H	U046	Methane, chloromethoxy-	EHW	D H + I
U209	Ethane, 1,1,2,2-Tetrachloro-	EHW	H	U068	Methane, dibromo-	EHW	CH +
U227	Ethane, 1,1,2-trichloro-	EHW	CH	U080	Methane, dichloro-	EHW	C H
P084	Ethenamine, N-methyl-N-nitroso	EHW	B +	U075	Methane, dichlorodifluoro-	EHW	H
U043	Ethene, chloro-	EHW	D H +	U138	Methane, iodo-	EHW	H +
U042	Ethene, 2-chloroethoxy-	EHW	CH	U211	Methane, tetrachloro-	EHW	C H +
U078	Ethene, 1,1-dichloro-	EHW	CH +	P118	Methanethiol, trichloro-	EHW	H
U079	Ethene, trans-1,2-dichloro-	EHW	D H	U153	Methanethiol	EHW	B I
U210	Ethene, 1,1,2,2-tetrachloro-	EHW	CH	U225	Methane, tribromo	EHW	H
U006	Ethanoyl chloride	EHW	CH O R	U121	Methane, trichlorofluoro-	EHW	H
P101	Ethyl cyanide	EHW	B	U044	Methane, trichloro-	EHW	CH +
U038	Ethyl 4,4'-dichlorobenzilate	EHW	D H	P059	4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro-	EHW	X H +
U114	Ethylenebis(dithiocarbamic acid), salts and esters	EHW	B	U036	4,7-Methanoindan, 1,2,4,5,6,7,8,8-octa-chloro-3a,4,7,7a-tetrahydro-	EHW	X H
U067	Ethylene dibromide	EHW	CH	P066	Methomyl	EHW	B
U077	Ethylene dichloride	EHW	D H	P067	2-Methylaziridine	EHW	B + I
U115	Ethylene oxide	EHW	C I	P068	Methyl hydrazine	EHW	A I
P054	Ethylenimine	EHW	B +	P064	Methyl isocyanate	EHW	I ?
U076	Ethylidene dichloride	EHW	D H	P069	2-Methylactonitrile	EHW	A
P097	Famphur	EHW	A	P071	Methyl parathion	EHW	A
P056	Fluorine	EHW	B	U029	Methyl bromide	EHW	H
P057	Fluoroacetamide	EHW	B H	U045	Methyl chloride	EHW	H I
P058	Fluoroacetic acid, sodium salt	EHW	A H	U156	Methyl chlorocarbonate	EHW	B H I
U122	Formaldehyde	EHW	C	U226	Methylchloroform	EHW	CH
P065	Fulminic acid, mercury (II) salt	EHW	R ?	U157	3-Methylcholanthrene	EHW	H P
U125	2-Furancarboxaldehyde	EHW	C I	U158	4,4'-Methylenebis(2-chloroaniline)	EHW	H +
U147	2,5-Furandione	EHW	C	U132	2,2'-Methylenebis(3,4,6-trichlorophenol)	EHW	CH +
U125	Furfural	EHW	C I	U068	Methylene bromide	EHW	CH +
U126	Glycidylaldehyde	EHW	C +	U080	Methylene chloride	EHW	CH
U163	Guanidine, N-nitroso-N-methyl-N'nitro-	EHW	C +	U122	Methylene oxide	EHW	C
P059	Heptachlor	EHW	X H +	U160	Methyl ethyl ketone peroxide	EHW	B R
U127	Hexachlorobenzene	EHW	H	U138	Methyl iodide	EHW	H +
U128	Hexachlorobutadiene	EHW	CH	U163	N-Methyl-N'-nitro-N-nitrosoguanidine	EHW	C + R
U129	Hexachlorocyclohexane (gamma isomer)	EHW	H +	U010	Mitomycin C	EHW	B +
U130	Hexachlorocyclopentadiene	EHW	X H	U165	Naphthalene	EHW	B
P051	1,2,3,4,10,10-Hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-endo, exo-1,4,5,8-dimethanonaphthalene	EHW	X H	U047	Naphthalene, 2-chloro-	EHW	D H
P037	1,2,3,4,10,10-Hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-endo, exo-1,4,5,8-dimethanonaphthalene	EHW	X H +	U166	1,4-Naphthalenedione	EHW	C
U131	Hexachloroethane	EHW	H	U236	2,7-Naphthalenedisulfonic acid, 3,3'-[(3,3'-dimethyl-(1,1'-biphenyl)-4,4'-diyl)]-bis(azo)bis(5-amino-4-hydroxy)-, tetrasodium salt	EHW	H +
P060	1,2,3,4,10,10-Hexachloro-1,4,4a,5,8,8a-hexahydro-1,4:5,8-endo, endo-dimethanonaphthalene	EHW	B H	U166	1,4-Naphthalenedione	EHW	C
P004	1,2,3,4,10,10-Hexachloro-1,4,4a,5,8,8a-hexahydro-1,4:5,8-endo, exodimethanonaphthalene	EHW	B H	U167	1-Naphthylamine	EHW	B +
P060	Hexachlorohexahydro-endo, endo-dimethanonaphthalene	EHW	B H	U168	2-Naphthylamine	EHW	B +
U132	Hexachlorophene	EHW	CH	U167	alpha-Naphthylamine	EHW	B +
U243	Hexachloropropene	EHW	H	U168	beta-Naphthylamine	EHW	B +
P062	Hexaethyl tetraphosphate	EHW	B	U026	2-Naphthylamine, N,N-bis(2-chloro-ethyl)-	EHW	H +
U133	Hydrazine	EHW	B + R	P072	alpha-Naphthylthiourea	EHW	B
P116	Hydrazinecarbothioamide	EHW	B	P073	Nickel carbonyl	EHW	B
U099	Hydrazine, 1,2-dimethyl-	EHW	C + I	P074	Nickel cyanide	EHW	D R ?
U109	Hydrazine, 1,2-diphenyl-	EHW	C	P074	Nickel (II) cyanide	EHW	D R ?
P068	Hydrazine, methyl-	EHW	A I	P073	Nickel tetracarbonyl	EHW	B
P063	Hydrocyanic acid	EHW	A	P075	Nicotine and salts	EHW	B
P063	Hydrogen cyanide	EHW	A	P076	Nitric oxide	EHW	B
P096	Hydrogen phosphide	EHW	B I	P077	p-Nitroaniline	EHW	D ?
U135	Hydrogen sulfide	EHW	B I	U169	Nitrobenzene	EHW	C I
U096	Hydroperoxide, 1-methyl-1-phenylethyl-	EHW	CR	P078	Nitrogen dioxide	EHW	A
U245	Indomethacin	EHW	B H	P076	Nitrogen (II) oxide	EHW	B
P064	Isocyanic acid, methyl ester	EHW	I ?	P078	Nitrogen (IV) oxide	EHW	A
P007	3(2H)-Isoxazolone, 5-(aminomethyl)-	EHW	B	P081	Nitroglycerine	EHW	R ?
U142	Kepon	EHW	X H	U170	p-Nitrophenol	EHW	C
U143	Lasiocarpine	EHW	CH	U171	2-Nitropropane	EHW	C I
U144	Lead acetate	EHW	D EP	U174	N-Nitrosodiethylamine	EHW	C +
U129	Lindane	EHW	H +	P082	N-Nitrosodimethylamine	EHW	B +
U147	Maleic anhydride	EHW	C	U176	N-Nitroso-N-ethylurea	EHW	C +
				U177	N-Nitroso-N-methylurea	EHW	C +
				U178	N-Nitroso-N-methylurethane	EHW	C +
				P084	N-Nitrosomethylvinylamine	EHW	B +
				U179	N-Nitrosopiperidine	EHW	C +
				U111	N-Nitroso-n-propylamine	EHW	C +

Dangerous Waste No.	Substance	WDOE Hazard Designation	Reason for Designation*	Dangerous Waste No.	Substance	WDOE Hazard Designation	Reason for Designation*
P050	5-Norbornene-2,3,-dimethanol, 1,4,5,6,7,7-hexachloro, cyclic sulfite	EHW	X H	U152	2-Propenenitrile, 2-methyl-	EHW	B I
P085	Octamethylpyrophosphoramidate	EHW	A	U008	2-Propenoic acid	EHW	C O I
P087	Osmium oxide	EHW	B	P005	2-Propen-1-ol	EHW	B I
P087	Osmium tetroxide	EHW	B	See F027	Propionic acid, 2-(2,4,5-trichlorophenoxy)-	EHW	B H
P088	7-Oxabicyclo[2.2.1]heptane-2,3-dicarboxylic acid	EHW	B	U194	n-Propylamine	EHW	C I
U058	2H-1,3,2-Oxazaphosphorine, 2-[bis(2-chloro ethyl)amino]tetrahydro-, 2-oxide	EHW	C H I +	U083	Propylene dichloride	EHW	C H I
U115	Oxirane	EHW	C I	P067	1,2-Propylenimine	EHW	B + I
U041	Oxirane, 2-(chloromethyl)-	EHW	C H + I	P102	2-Propyn-1-ol	EHW	X
P089	Parathion	EHW	X	P008	4-Pyridinamine	EHW	B
U183	Pentachlorobenzene	EHW	H	P075	Pyridine, (S)-3-(1-methyl-2-pyrrolidinyl)-, and salts	EHW	B
U184	Pentachloroethane	EHW	A H	U196	Pyridine	EHW	C I
U185	Pentachloronitrobenzene	EHW	D H +	U179	Pyridine, hexahydro-N-nitroso-	EHW	C +
See F027	Pentachlorophenol	EHW	A H	U191	Pyridine, 2-methyl-	EHW	C
U188	Phenol	EHW	C	P111	Pyrophosphoric acid, tetraethyl ester	EHW	A
P034	Phenol, 2-cyclohexyl-4,6-dinitro-	EHW	C	U201	Resorcinol	EHW	C
P048	Phenol, 2,4-dinitro-	EHW	B	P103	Selenourea	EHW	B
P047	Phenol, 2-methyl-4,6-dinitro-, and salts	EHW	B	U015	L-Serine, diazoacetate (ester)	EHW	C +
P020	Phenol, 2,4-dinitro-6-(1-methylpropyl)-	EHW	B	P104	Silver cyanide	EHW	C
P009	Phenol, 2,4,6-trinitro-, ammonium salt	EHW	R	See F027	Silvex	EHW	B H
U048	Phenol, 2-chloro-	EHW	D H	P105	Sodium azide	EHW	A
U039	Phenol, 4-chloro-3-methyl-	EHW	H	P106	Sodium cyanide	EHW	A
U081	Phenol, 2,4-dichloro-	EHW	D H	P107	Strontium sulfide	EHW	R
U082	Phenol, 2,6-dichloro-	EHW	D H	P108	Strychnidin-10-one, and salts	EHW	B
U170	Phenol, 4-nitro-	EHW	C	P018	Strychnidin-10-one, 2,3-dimethoxy-	EHW	A
See F027	Phenol, pentachloro-	EHW	A H	P108	Strychnine and salts	EHW	B
See F027	Phenol, 2,3,4,6-tetrachloro-	EHW	C H	U135	Sulfur hydride	EHW	B I
See F027	Phenol, 2,4,5-trichloro-	EHW	A H	U103	Sulfuric acid, dimethyl ester	EHW	C O +
See F027	Phenol, 2,4,6-trichloro-	EHW	A H	P115	Sulfuric acid, thallium (I) salt	EHW	B
P036	Phenyl dichloroarsine	EHW	B H	U189	Sulfur phosphide	EHW	B I R
P092	Phenylmercuric acetate	EHW	B	See F027	2,4,5-T	EHW	B H +
P093	N-Phenylthiourea	EHW	A	See F027	1,2,4,5-Tetrachlorobenzene	EHW	D H
P094	Phorate	EHW	X	U208	1,1,1,2-Tetrachloroethane	EHW	H
P095	Phosgene	EHW	B H	U209	1,1,2,2-Tetrachloroethane	EHW	H
P096	Phosphine	EHW	B I	U210	Tetrachloroethylene	EHW	C H +
P041	Phosphoric acid, diethyl p-nitrophenyl ester	EHW	A	U212	2,3,4,6-Tetrachlorophenol	EHW	C H
P044	Phosphorodithioic acid, O,O-dimethyl S-[2-(methylamino)-2-oxoethyl] ester	EHW	A	P109	Tetraethylthiopyrophosphate	EHW	A
P043	Phosphorofluoridic acid, bis(1-methyl-ethyl)ester	EHW	B H	P110	Tetraethyl lead	EHW	A
P094	Phosphorothioic acid, O,O-diethyl S-(ethylthio)methyl ester	EHW	X	P111	Tetraethylpyrophosphate	EHW	A
P097	Phosphorothioic acid, O,O-dimethyl O-[p-((dimethylamino)sulfonyl)phenyl]ester	EHW	A	P112	Tetranitromethane	EHW	A R
P089	Phosphorothioic acid, O,O-diethyl O-(p-nitrophenyl)ester	EHW	X	P062	Tetraphosphoric acid, hexaethyl ester	EHW	B
P040	Phosphorothioic acid, O,O-diethyl O-pyra-zinyl ester	EHW	A	P113	Thallic oxide	EHW	B
U189	Phosphorus sulfide	EHW	B I R	P113	Thallium (III) oxide	EHW	B
U190	Phthalic anhydride	EHW	C	P114	Thallium (I) selenide	EHW	C
U191	2-Picoline	EHW	C	P115	Thallium (I) sulfate	EHW	B
P110	Plumbane, tetraethyl-	EHW	A	P045	Thiofanox	EHW	B
P098	Potassium cyanide	EHW	A	P049	Thioimidodicarbonic diamide	EHW	A
P099	Potassium silver cyanide	EHW	A	U153	Thiomethanol	EHW	B I
P070	Propanal, 2-methyl-2(methylthio)-O-[(methylamino)carbonyl]oxime	EHW	B	P014	Thiophenol	EHW	A
U194	1-Propanamine	EHW	C I	P116	Thiosemicarbazide	EHW	B H +
U110	1-Propanamine, N-propyl-	EHW	C I	U219	Thiourea	EHW	C +
U066	Propane, 1,2-dibromo-3-chloro-	EHW	C H +	P026	Thiourea, (2-chlorophenyl)-	EHW	A H
U149	Propanedinitrile	EHW	C	P072	Thiourea, 1-naphthalenyl-	EHW	B
P101	Propanenitrile	EHW	B	P093	Thiourea, phenyl-	EHW	A
P027	Propanenitrile, 3-chloro-	EHW	B H	U220	Toluene	EHW	C I
P079	Propanenitrile, 2-hydroxy-2-methyl-	EHW	A	U223	Toluene diisocyanate	EHW	B R
U171	Propane, 2-nitro-	EHW	C I	P123	Toxaphene	EHW	X H
U027	Propane, 2,2'-oxybis[2-chloro-	EHW	C H O	U226	1,1,1-Trichloroethane	EHW	C H
P081	1,2,3-Propanetriol, trinitrate-	EHW	R ?	U227	1,1,2-Trichloroethane	EHW	C H
U235	1-Propanol, 2,3-dibromo-, phosphate (3:1)	EHW	D H	U228	Trichloroethene	EHW	C H +
U126	1-Propanol, 2,3-epoxy-	EHW	C +	U228	Trichloroethylene	EHW	C H +
P017	2-Propanone, 1-bromo-	EHW	C H	P118	Trichloromethanethiol	EHW	H
P102	Propargyl alcohol	EHW	X	U121	Trichloromonofluoromethane	EHW	H
P003	2-Propenal	EHW	X	See F027	2,4,5-Trichlorophenol	EHW	A H
U007	2-Propenamidine	EHW	C	See F027	2,4,6-Trichlorophenol	EHW	A H
U084	Propene, 1,3-dichloro-	EHW	C H	U232	2,4,5-Trichlorophenoxy-acetic acid, salts and esters	EHW	B H +
U243	1-Propene, 1,1,2,3,3,3-hexachloro-	EHW	H	U233	2,4,5-Trichlorophenoxy-propionic acid, salts and esters	EHW	B H +
U009	2-Propenenitrile	EHW	C + I	U235	Tris(2,3-disubromopropyl) phosphate	EHW	D H
				U236	Trypan blue	EHW	H +
				U237	Uracil, 5[bis(2-chloroethyl)amino]-	EHW	B H +
				U237	Uracil mustard	EHW	B H +
				P119	Vanadic acid, ammonium salt	EHW	B
				P120	Vanadium pentoxide	EHW	B
				P120	Vanadium (V) oxide	EHW	B
				U043	Vinyl chloride	EHW	D H +
				P001	Warfarin	EHW	A
				U239	Xylene	EHW	C I
				P121	Zinc cyanide	EHW	C
				P122	Zinc phosphide	EHW	B R

Dangerous Waste No.	Substance	WDOE Hazard Designation	Reason for Designation*	Dangerous Waste No.	Substance	WDOE Hazard Designation	Reason for Designation*
MODERATELY DANGEROUS CHEMICAL PRODUCTS				U120	Fluoranthene	DW	D
U187	Acetamide, N-(4-ethoxyphenyl)-	DW	D +	U123	Formic Acid	DW	D O
U005	Acetamide, N-9H-fluoren-2-yl-	DW	?	U124	Furan	DW	I
U112	Acetic acid, ethyl ester	DW	D I	U213	Furan, tetrahydro-	DW	I
U214	Acetic acid, thallium(I) salt	DW	?	U124	Furfuran	DW	I
U002	Acetone	DW	D I	U206	D-Glucopyranose, 2-deoxy-2(3-methyl-3-nitrosoureido)-	DW	+
U004	Acetophenone	DW	D	U086	Hydraxine, 1,2-diethyl-	DW	+
U005	2-Acetylaminofluorene	DW	?	U098	Hydrazine, 1,1-dimethyl-	DW	+ I
U150	Alanine, 3-[p-bis(2-chloroethyl)amino]phenyl-, L-	DW	+	U134	Hydrofluoric acid	DW	D O
U328	2-Amino-1-methylbenzene	DW	D +	U134	Hydrogen fluoride	DW	D O
U353	4-Amino-1-methylbenzene	DW	D	U136	Hydroxydimethylarsine oxide	DW	D
U011	Amitrole	DW	D +	U116	2-Imidazolidinethione	DW	D +
U014	Auramine	DW	+	U137	Indeno[1,2,3-cd]pyrene	DW	+
U016	Benz[c]acridine	DW	+	U139	Iron dextran	DW	+
U016	3,4-Benzacridine	DW	+	U140	Isobutyl alcohol	DW	D I
U014	Benzenamine, 4,4-carbonimidoylbis(N,N-dimethyl)-	DW	+	U141	Isosafrole	DW	D +
U222	Benzenamine, 2-methyl-, hydrochloride	DW	D +	U145	Lead phosphate	DW	+
U181	Benzenamine, 2-methyl-5-nitro	DW	D	U146	Lead subacetate	DW	+
U028	1,2-Benzenedicarboxylic acid, [bis(2-ethyl-hexyl)] ester	DW	?	U148	Maleic hydrazide	DW	D
U069	1,2-Benzenedicarboxylic acid, dibutyl ester	DW	D	U150	Melphalan	DW	+
U088	1,2-Benzenedicarboxylic acid, diethyl ester	DW	?	U119	Methanesulfonic acid, ethyl ester	DW	+
U102	1,2-Benzenedicarboxylic acid, dimethyl ester	DW	?	U123	Methanoic acid	DW	D O
U107	1,2-Benzenedicarboxylic acid, di-n-octyl ester	DW	?	U154	Methanol	DW	D I
U203	Benzene, 1,2-methylenedioxy-4-allyl-	DW	D +	U155	Methapyrilene	DW	D
U141	Benzene, 1,2-methylenedioxy-4-propenyl-	DW	D +	U154	Methyl alcohol	DW	D I
U090	Benzene, 1,2-methylenedioxy-4-propyl-	DW	D +	U186	1-Methylbutadiene	DW	D I
U234	Benzene, 1,3,5-trinitro-	DW	D R	U159	Methyl ethyl ketone	DW	D I
U202	1,2-Benzisothiazilin-3-one, 1,1-dioxide, and salts	DW	+	U161	Methyl isobutyl ketone	DW	D I
U120	Benzo[j,k]fluorene	DW	D	U162	Methyl methacrylate	DW	D I
U091	(1,1'-Biphenyl)-4,4'-diamine, 3,3'-dimethoxy-	DW	D +	U161	4-Methyl-2-pentanone	DW	+
U244	Bis(dimethylthiocarbonyl) disulfide	DW	D	U164	Methylthiouacil	DW	+
U028	Bis(2-ethoxy) phthalate	DW	?	U059	5,12-Naphthacenedione, (8S-cis)-8-acetyl-10-[(3-amino-2,3,6-trideoxy-alpha-L-lyxo-hexopyranosyl)oxyl]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-	DW	+
U172	1-Butanamine, N-butyl-N-nitroso-	DW	D +	U172	N-Nitrosodi-n-butylamine	DW	D +
U031	1-Butanol	DW	D I	U173	N-Nitrosodiethanolamine	DW	+
U159	2-Butanone	DW	D I	U180	N-Nitrosopyrrolidine	DW	D +
U031	n-Butyl alcohol	DW	D I	U181	5-Nitro-o-toluidine	DW	D
U136	Cacodylic acid	DW	D	U193	1,2-Oxathiolane, 2,2-dioxide	DW	+
U238	Carbamic acid, ethyl ester	DW	+	U182	Paraldehyde	DW	D I
U215	Carbonic acid, dithallium(I) salt	DW	?	U186	1,3-Pentadiene	DW	D I
U051	Creosote	DW	D	U187	Phenacetin	DW	D +
U059	Daunomycin	DW	+	U101	Phenol, 2,4-dimethyl-	DW	D
U221	Diaminotoluene	DW	?	U137	1,10-(1,2-Phenylene)pyrene	DW	+
U069	Dibutyl phthalate	DW	D	U145	Phosphoric acid, lead salt	DW	+
U192	3,5-Dichloro-N-(1,1-dimethyl-2-propynyl)benzamide	DW	?	U087	Phosphorodithioic acid, O,O-diethyl-, S-methyl ester	DW	?
U108	1,4-Diethylene dioxide	DW	D +	U192	Pronamide	DW	?
U086	N,N-Diethylhydrazine	DW	+	U193	1,3-Propane sultone	DW	+
U088	Diethyl phthalate	DW	?	U140	1-Propanol, 2-methyl-	DW	D I
U089	Diethylstilbestrol	DW	+	U002	2-Propanone	DW	D I
U148	1,2-Dihydro-3,6-pyridizinedione	DW	D	U113	2-Propanoic acid, ethyl ester	DW	D I
U090	Dihydrosafrole	DW	D +	U118	2-Propanoic acid, 2-methyl-, ethyl ester	DW	I
U091	3,3'-Dimethoxybenzidine	DW	D +	U162	2-Propanoic acid, 2-methyl-, methyl ester	DW	D I
U098	1,1-Dimethylhydrazine	DW	+ I	U155	Pyridine, 2-[(2dimethylamino) ethyl]- 2-phenylamino	DW	+
U101	2,4-Dimethylphenol	DW	D	U164	4(1H)-Pyrimidinone, 2,3-dihydro-6-methyl-2-thioxo-	DW	+
U102	Dimethyl phthalate	DW	?	U180	Pyrrole, tetrahydro-N-nitroso-	DW	D +
U107	Di-n-octyl phthalate	DW	?	U200	Reserpine	DW	?
U108	1,4-Dioxane	DW	D +	U202	Saccharin and salts	DW	+
U117	Ethane, 1,1'-oxybis-	DW	D I	U203	Safrole	DW	D +
U218	Ethanethioamide	DW	+	U204	Seleniousacid	DW	O
U173	Ethanol, 2,2-(nitrosoimino)bis-	DW	+	U204	Selenium dioxide	DW	O
U004	Ethanone, 1-phenyl-	DW	D	U205	Selenium disulfide	DW	R
U112	Ethyl acetate	DW	D I	U089	4,4'-Stilbenediol, alpha,alpha'-diethyl-	DW	+
U113	Ethyl acrylate	DW	D I	U206	Streptozotocin	DW	+
U238	Ethyl carbamate (urethan)	DW	+	U205	Sulfur selenide	DW	R
U116	Ethylene thiourea	DW	D +	U213	Tetrahydrofuran	DW	I
U117	Ethyl ether	DW	D I	U214	Thallium(1) acetate	DW	?
U118	Ethyl methacrylate	DW	I	U215	Thallium(1) carbonate	DW	?
U119	Ethyl methanesulfonate	DW	+	U216	Thallium(1) chloride	DW	?
U139	Ferric dextran	DW	+	U217	Thallium(1) nitrate	DW	?
				U218	Thioacetamide	DW	+
				U244	Thiran	DW	D
				U221	Toluenediamine	DW	?
				U328	o-Toluidine	DW	D +
				U353	p-Toluidine	DW	D
				U222	o-Toluidine hydrochloride	DW	D +

Dangerous Waste No.	Substance	WDOE Hazard Designation	Reason for Designation*
U011	1H-1,2,4-Triazol-3-amine	DW	D +
U234	sym-Trinitrobenzene	DW	D R
U182	1,3,5-Trioxane, 2,4,6-trimethyl-	DW	D I
U200	Yohimban-16-carboxylic acid, 11,17-di-methoxy-18-[(3,4,5-trimethoxy-benzoyloxy)-,methyl ester	DW	?

- * EHW = Extremely Hazardous Waste
 DW = Dangerous Waste
 X = Toxic, Category X
 A = Toxic, Category A
 B = Toxic, Category B
 C = Toxic, Category C
 D = Toxic, Category D
 ? = Toxic, Category not determined
 H = Persistent, Halogenated Hydrocarbon
 O = Corrosive
 P = Persistent, Polycyclic Aromatic Hydrocarbon
 + = IARC Animal or Human, Sufficient or Limited Carcinogen
 I = Ignitable
 R = Reactive
 EP = Toxicity Characteristic

[Statutory Authority: Chapters 70.105 and 70.105D RCW, 40 CFR Part 271.3 and RCRA § 3006 (42 U.S.C. 3251). 91-07-005 (Order 90-42), § 173-303-9903, filed 3/7/91, effective 4/7/91. Statutory Authority: Chapter 70.105 RCW, 89-02-059 (Order 88-24), § 173-303-9903, filed 1/4/89; 86-12-057 (Order DE-85-10), § 173-303-9903, filed 6/3/86; 84-09-088 (Order DE 83-36), § 173-303-9903, filed 4/18/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-9903, filed 2/10/82.]

Reviser's note: The brackets and enclosed material in the text of the above section occurred in the copy filed by the agency.

WAC 173-303-9904 Dangerous waste sources list.

DANGEROUS WASTE SOURCES LIST

Dangerous Waste No.	Sources
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; and sludges from the recovery of these solvents in degreasing operations. (See footnote 1, below.)
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; and the still bottoms from the recovery of these solvents. (See footnote 1, below.)
F003	The following spent nonhalogenated solvents: Xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, and methanol; and

Dangerous Waste No.	Sources
	the still bottoms from the recovery of these solvents.
F004	The following spent nonhalogenated solvents: Cresols and cresylic acid, nitrobenzene; and the still bottoms from the recovery of these solvents.
F005	The following spent nonhalogenated solvents: Toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, benzene, 2-ethoxyethanol, 2-nitropropane; and the still bottoms from the recovery of these solvents.
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.
F019	Wastewater treatment sludges from the chemical conversion coating of aluminum.
F007	Spent cyanide plating bath solutions from electroplating operations.
F008	Plating bath residues from the bottom of plating baths from electroplating operations where cyanides are used in the process.
F009	Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process.
F010	Quenching bath residues from oil baths from metal heat treating operations where cyanides are used in the process.
F011	Spent cyanide solutions from salt bath pot cleaning from metal heat treating operations.
F012	Quenching wastewater treatment sludges from metal heat-treating operations where cyanides are used in the process.
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 2, below.)

Dangerous Waste No.	Sources
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 2, below.)
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 2, below.)
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 2, 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.)
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 2, below.)
F027	Discarded unused formulations containing tri-, tetra-, or pentachlorophenol or discarded unused formulations containing compounds derived from these chlorophenols. (See footnote 2, below.) (This listing does not include formulations containing hexachlorophene synthesized from prepurified 2,4,5-trichlorophenol as the sole component.)
F028	Residues resulting from the incineration or thermal treatment of soil contaminated with nonspecific sources wastes F020, F021, F022, F023, F026 and F027.
F024	Wastes, including but not limited to, distillation residues, heavy ends, tars, and reactor cleanout wastes from the production of chlorinated aliphatic hydrocarbons, having carbon content from one to five, utilizing free radical catalyzed processes. (See footnote 1, below.) (This listing does not include light ends, spent filters and filter aids, spent dessicants, wastewater, wastewater treatment sludges, spent

Dangerous Waste No.	Sources
	catalysts, and wastes listed under specific sources, below.)

Specific Sources

Wood Preservation:

K001 Bottom sediment sludge from the treatment of wastewaters from wood preserving processes that use creosote and/or pentachlorophenol. (See footnote 1, below.)

Inorganic Pigments:

K002 Wastewater treatment sludge from the production of chrome yellow and orange pigments.

K003 Wastewater treatment sludge from the production of molybdate orange pigments.

K004 Wastewater treatment sludge from the production of zinc yellow pigments.

K005 Wastewater treatment sludge from the production of chrome green pigments.

K006 Wastewater treatment sludge from the production of chrome oxide green pigments (anhydrous and hydrated).

K007 Wastewater treatment sludge from the production of iron blue pigments.

K008 Oven residue from the production of chrome oxide green pigments.

Organic Chemicals:

K009 Distillation bottoms from the production of acetaldehyde from ethylene.

K010 Distillation side cuts from the production of acetaldehyde from ethylene.

K011 Bottom stream from the wastewater stripper in the production of acrylonitrile.

K013 Bottom stream from the acetonitrile column in the production of acrylonitrile.

K014 Bottoms from the acetonitrile purification column in the production of acrylonitrile.

K015 Still bottoms from the distillation of benzyl chloride. (See footnote 1, below.)

K016 Heavy ends or distillation residues from the production of carbon tetrachloride. (See footnote 1, below.)

K017 Heavy ends (still bottoms) from the purification column in the production of epichlorohydrin. (See footnote 1, below.)

K018 Heavy ends from the fractionation column in ethyl chloride production. (See footnote 1, below.)

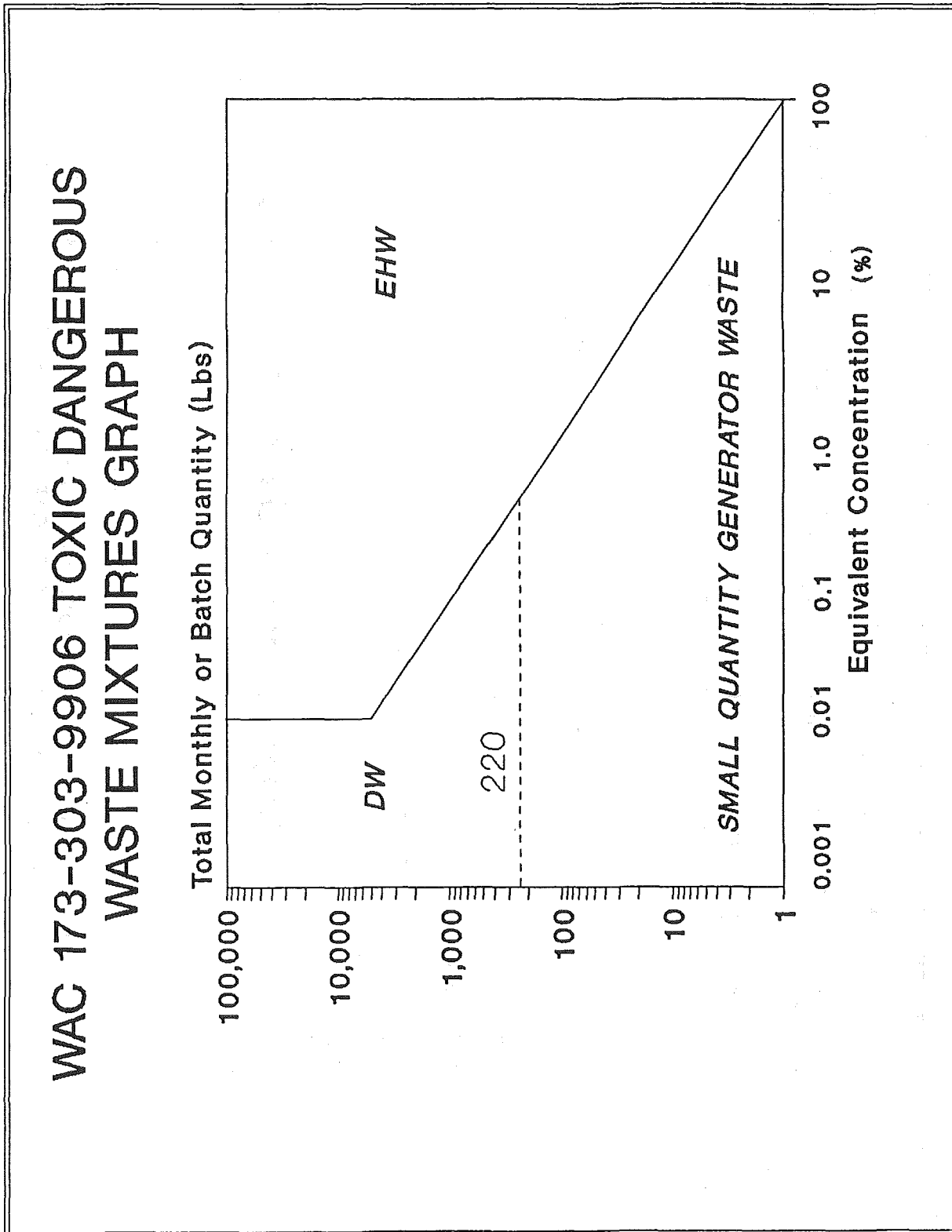
Dangerous Waste No.	Sources	Dangerous Waste No.	Sources
K019	Heavy ends from the distillation of ethylene dichloride in ethylene dichloride production. (See footnote 1, below.)	K105	Separated aqueous stream from the reactor product washing step in the production of chlorobenzenes. (See footnote 1, below.)
K020	Heavy ends from the distillation of vinyl chloride in vinyl chloride monomer production. (See footnote 1, below.)	K111	Product washwaters from the production of dinitrotoluene via nitration of toluene.
K021	Aqueous spent antimony catalyst waste from fluoromethanes production. (See footnote 1, below.)	K112	Reaction by-product water from the drying column in the production of toluenediamine via hydrogenation of dinitrotoluene.
K022	Distillation bottom tars from the production of phenol/acetone from cumene.	K113	Condensed liquid light ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.
K023	Distillation light ends from the production of phthalic anhydride from naphthalene.	K114	Vicinals from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.
K024	Distillation bottoms from the production of phthalic anhydride from naphthalene.	K115	Heavy ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.
K093	Distillation light ends from the production of phthalic anhydride from ortho-xylene.	K116	Organic condensate from the solvent recovery column in the production of toluene diisocyanate via phosgenation of toluenediamine. (See footnote 1, below.)
K094	Distillation bottoms from the production of phthalic anhydride from ortho-xylene.		
K025	Distillation bottoms from the production of nitrobenzene by the nitration of benzene.		
K026	Stripping still tails from the production of methyl ethyl pyridines.	Explosives:	
K027	Centrifuge and distillation residues from toluene diisocyanate production.	K044	Wastewater treatment sludges from the manufacturing and processing of explosives.
K028	Spent catalyst from the hydrochlorinator reactor in the production of 1,1,1-trichloroethane. (See footnote 1, below.)	K045	Spent carbon from the treatment of wastewater containing explosives.
K029	Waste from the product steam stripper in the production of 1,1,1-trichloroethane. (See footnote 1, below.)	K046	Wastewater treatment sludges from the manufacturing, formulation and loading of lead-based initiating compounds.
K095	Distillation bottoms from the production of 1,1,1-trichloroethane. (See footnote 1, below.)	K047	Pink/red water from TNT operations.
K096	Heavy ends from the heavy ends column from the production of 1,1,1-trichloroethane. (See footnote 1, below.)	Inorganic Chemicals:	
K030	Column bottoms or heavy ends from the combined production of trichloroethylene and perchloroethylene. (See footnote 1, below.)	K071	Brine purification muds from the mercury cell process in chlorine production, where separately prepurified brine is not used.
K083	Distillation bottoms from aniline production.	K073	Chlorinated hydrocarbon waste from the purification step of the diaphragm cell process using graphite anodes in chlorine production. (See footnote 1, below.)
K103	Process residues from aniline extraction from the production of aniline.	K106	Wastewater treatment sludge from the mercury cell process in chlorine production.
K104	Combined wastewater streams generated from nitrobenzene/aniline production.	Petroleum Refining:	
K085	Distillation of fractionation column bottoms from the production of chlorobenzenes. (See footnote 1, below.)	K048	Dissolved air flotation (DAF) float from the petroleum refining industry.
		K049	Slop oil emulsion solids from the petroleum refining industry.
		K050	Heat exchanger bundle cleaning sludge from the petroleum refining industry.

Dangerous Waste No.	Sources	Dangerous Waste No.	Sources
K051	API separator sludge from the petroleum refining industry.	K099	Untreated wastewater from the production of 2,4-D. (See footnote 1, below.)
K052	Tank bottoms (leaded) from the petroleum refining industry.	K123	Process wastewater (including supernates, filtrates, and wastewaters) from the production of ethylenebisdithiocarbamic acid and its salts.
Iron and Steel:		K124	Reactor vent scrubber water from the production of ethylenebisdithiocarbamic acid and its salts.
K061	Emission control dust/sludge from the primary production of steel in electric furnaces.	K125	Filtration, evaporation, and centrifugation solids from the production of ethylenebisdithiocarbamic acid and its salts.
K062	Spent pickle liquor generated by steel finishing operations of facilities within the iron and steel industry (SIC Codes 331 and 332).	K126	Baghouse dust and floor sweepings in milling and packaging operations from the production or formulation of ethylenebisdithiocarbamic acid and its salts.
Pesticides:		Primary Copper:	
K031	Byproduct salts generated in the production of MSMA and cacodylic acid.	K064	Acid plant blowdown slurry/sludge resulting from the thickening of blowdown slurry from primary copper production.
K032	Wastewater treatment sludge from the production of chlordane. (See footnote 3, below.)	Primary Lead:	
K033	Wastewater and scrub water from the chlorination of cyclopentadiene in the production of chlordane. (See footnote 3, below.)	K065	Surface impoundment solids contained in and dredged from surface impoundments at primary lead smelting facilities.
K034	Filter solids from the filtration of hexachlorocyclopentadiene in the production of chlordane. (See footnote 3, below.)	Primary Zinc:	
K097	Vacuum stripper discharge from the chlordane chlorinator in the production of chlordane. (See footnote 3, below.)	K066	Sludge from treatment of process wastewater and/or acid plant blowdown from primary zinc production.
K035	Wastewater treatment sludges generated in the production of creosote.	Primary Aluminum:	
K036	Still bottoms from toluene reclamation distillation in the production of disulfoton.	K088	Spent potliners from primary aluminum reduction.
K037	Wastewater treatment sludges from the production of disulfoton.	Ferroalloys:	
K038	Wastewater from the washing and stripping of phorate production. (See footnote 3, below.)	K090	Emission control dust or sludge from ferrochromium-silicon production.
K039	Filter cake from the filtration of diethylphosphorodithioic acid in the production of phorate. (See footnote 3, below.)	K091	Emission control dust or sludge from ferrochromium production.
K040	Wastewater treatment sludge from the production of phorate. (See footnote 3, below.)	Secondary Lead:	
K041	Wastewater treatment sludge from the production of toxaphene. (See footnote 3, below.)	K069	Emission control dust/sludge from secondary lead smelting.
K098	Untreated process wastewater from the production of toxaphene. (See footnote 3, below.)	K100	Waste leaching solution from acid leaching of emission control dust/sludge from secondary lead smelting.
K042	Heavy ends or distillation residues from the distillation of tetrachlorobenzene in the production of 2,4,5-T. (See footnote 1, below.)	Veterinary Pharmaceuticals:	
K043	2,6-Dichlorophenol waste from the production of 2,4-D. (See footnote 1, below.)	K084	Wastewater treatment sludges generated during the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.

Dangerous Waste No.	Sources	Dangerous Waste No.	Sources
K101	Distillation tar residues from the distillation of aniline-based compounds in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.		
K102	Residue from the use of activated carbon for decolorization in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.		
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.		
Coking:			
K060	Ammonia still-lime sludge from coking operations.		
K087	Decanter tank tar sludge from coking operations.		
Footnotes			
1	These wastes contain or may contain halogenated hydrocarbons. Although WAC 173-303-082 states that these wastes are DW, WAC 173-303-070(5), special knowledge, requires generators who know that their waste contains greater than one percent of these listed halogenated hydrocarbons to designate their waste EHW.		
2	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.		
3	These wastes contain or may contain X Category toxic constituents. Although WAC 173-303-082 states that these wastes are DW, WAC 173-303-070(5), special knowledge, requires generators who know that their waste contains greater than 0.1 percent of these listed toxic constituents to designate their waste EHW.		
		State Sources	
		W001	The following wastes generated from the salvaging, rebuilding, or discarding of transformers, bushing, or capacitors which contain polychlorinated biphenyls (PCB): Cooling and insulating fluids; cores, including core papers, from unrinsed transformers and capacitors; transformers and capacitors which will no longer be used for their intended use, except for those transformers or capacitors which have been rinsed; and, rinsate from the rinsing of transformers and capacitors. For the purposes of this listing, the rinsing of PCB containing items shall be conducted as follows: First, the item is drained of all free flowing liquid; second, the item is filled with solvent and allowed to stand for at least eighteen hours; last, the item is drained thoroughly and the solvent is collected. Solvents may include kerosene, xylene, toluene and other solvents in which PCB are readily soluble. (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 his PCB waste is excluded from the requirements of chapter 173-303 WAC.)

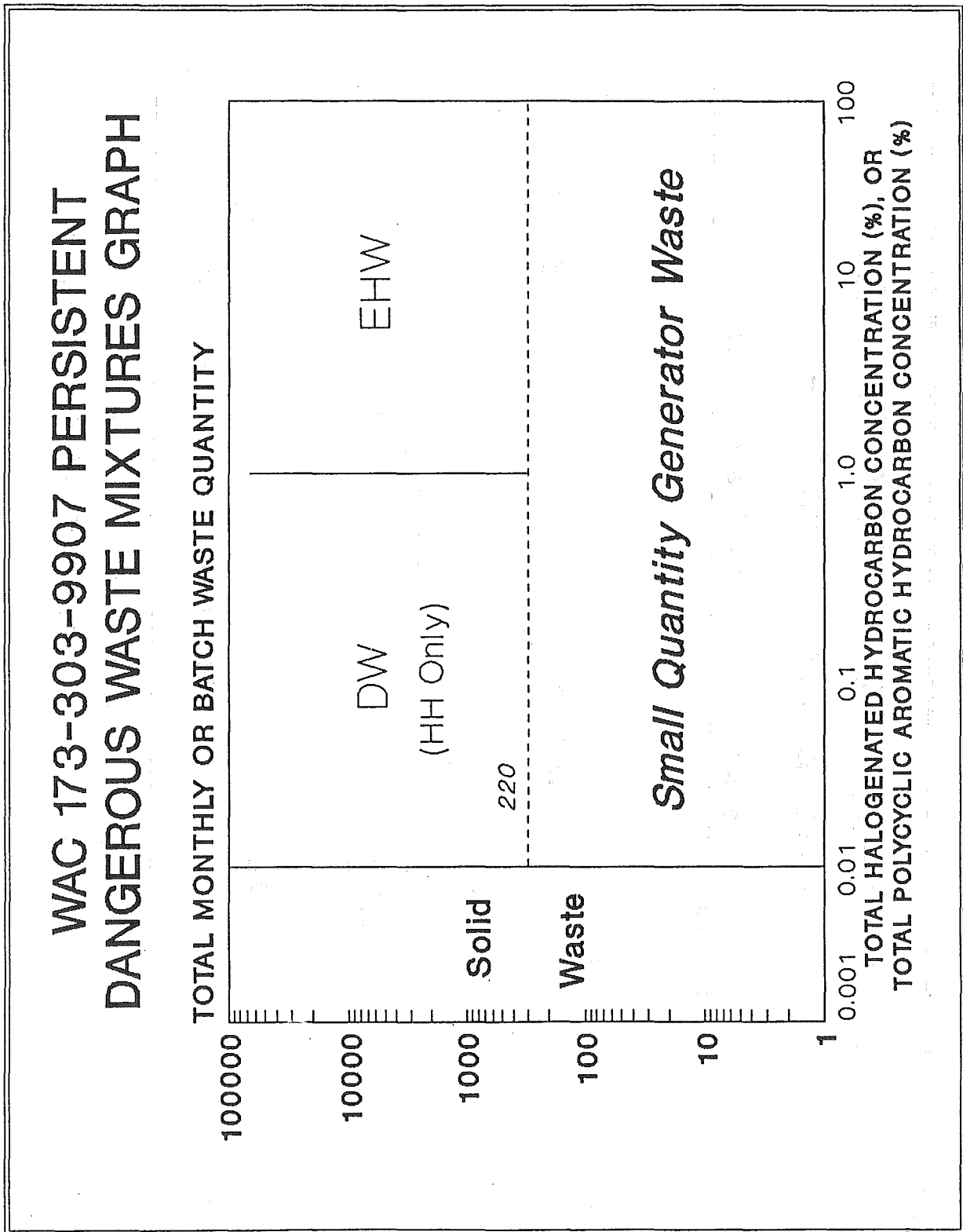
[Statutory Authority: Chapters 70.105 and 70.105D RCW, 40 CFR Part 271.3 and RCRA § 3006 (42 U.S.C. 3251). 91-07-005 (Order 90-42), § 173-303-9904, filed 3/7/91, effective 4/7/91. Statutory Authority: Chapter 70.105 RCW. 89-02-059 (Order 88-24), § 173-303-9904, filed 1/4/89; 87-14-029 (Order DE-87-4), § 173-303-9904, filed 6/26/87; 86-12-057 (Order DE-85-10), § 173-303-9904, filed 6/3/86; 85-09-042 (Order DE-85-02), § 173-303-9904, filed 4/15/85; 84-09-088 (Order DE 83-36), § 173-303-9904, filed 4/18/84. Statutory Authority: RCW 70.95.260 and chapter 70.105 RCW. 82-05-023 (Order DE 81-33), § 173-303-9904, filed 2/10/82.]

WAC 173-303-9906 Toxic dangerous waste mixtures graph.



[Statutory Authority: Chapters 70.105 and 70.105D RCW, 40 CFR Part 271.3 and RCRA § 3006 (42 U.S.C. 3251). 91-07-005 (Order 90-42), § 173-303-9906, filed 3/7/91, effective 4/7/91. Statutory Authority: Chapter 70.105 RCW, 87-14-029 (Order DE-87-4), § 173-303-9906, filed 6/26/87. Statutory Authority: RCW 70.95.260 and chapter 70.105 RCW, 82-05-023 (Order DE 81-33), § 173-303-9906, filed 2/10/82.]

WAC 173-303-9907 Persistent dangerous waste mixtures graph.



[Statutory Authority: Chapters 70.105 and 70.105D RCW, 40 CFR Part 271.3 and RCRA § 3006 (42 U.S.C. 3251). 91-07-005 (Order 90-42), § 173-303-9907, filed 3/7/91, effective 4/7/91. Statutory Authority: Chapter 70.105 RCW. 87-14-029 (Order DE-87-4), § 173-303-9907, filed 6/26/87. Statutory Authority: RCW 70.95.260

and chapter 70.105 RCW. 82-05-023 (Order DE 81-33), § 173-303-9907, filed 2/10/82.]

Chapter 173-305 WAC
HAZARDOUS WASTE FEE REGULATION

WAC	
173-305-010	Purpose.
173-305-015	Applicability.
173-305-020	Definitions.
173-305-030	Penalty for failure to pay the fee.
173-305-040	Adjustment of fees.
173-305-050	General administrative provisions.
173-305-110	Fees.
173-305-120	Responsibilities of the departments of ecology and revenue.
173-305-210	Imposition of fee.
173-305-220	Additional fee.
173-305-230	Due dates.
173-305-240	Responsibilities of the departments of ecology and revenue.

WAC 173-305-010 Purpose. This rule implements the provisions of chapter 70.95E RCW, establishing a means for funding technical assistance and compliance education assistance to hazardous substance users and waste generators in this state. Technical assistance includes but is not limited to assistance in the preparation of plans and review of plans and related documents. The purpose of this chapter is to describe the methods by which the department of ecology will assess certain fees, to whom fees will be assessed, the amount of such fees, provisions for exemption from and enforcement of fee assessments, responsibilities of the departments of ecology and revenue, and procedures for adjusting the fee. Copies of all rules, regulations, or statutes cited in this chapter are available from the Department of Ecology, Mailstop PV-11, Olympia, WA, 98504-8711.

[Statutory Authority: Chapter 70.95E RCW. 91-08-040 (Order 90-56), § 173-305-010, filed 4/1/91, effective 5/2/91. Statutory Authority: Chapter 70.105A RCW. 84-05-012 (Order DE 83-38), § 173-305-010, filed 2/7/84.]

WAC 173-305-015 Applicability. The requirements of WAC 173-305-010 through 173-305-120 apply to all persons who are known or potential generators, including state and local entities as well as instrumentalities of the United States. The requirements of WAC 173-305-010 through 173-305-050 and 173-305-210 through 173-305-240 apply to all persons required to prepare plans under RCW 70.95C.200.

[Statutory Authority: Chapter 70.95E RCW. 91-08-040 (Order 90-56), § 173-305-015, filed 4/1/91, effective 5/2/91. Statutory Authority: Chapter 70.105A RCW. 84-05-012 (Order DE 83-38), § 173-305-015, filed 2/7/84.]

WAC 173-305-020 Definitions. Any terms not specifically defined in this section shall, for the purposes of this chapter, have the same meaning as given in WAC 173-303-040. The following terms are defined for the purposes of this chapter:

"Additional fee" means the annual fee imposed under chapter 70.95E RCW against hazardous generators and hazardous substance users required to prepare plans;

"Base fee" means the annual fee imposed under chapter 70.95E RCW against known and potential generators of hazardous waste doing business in the state of Washington;

"Business activities" means activities of any person who is "engaging in business" as the term is defined in chapters 82.04 and 82.16 RCW;

"Dangerous waste" means any discarded, useless, unwanted, or abandoned nonradioactive substances, including but not limited to certain pesticides, or any residues or containers of such substances which are disposed of in such quantity or concentration as to pose a substantial present or potential hazard to human health, wildlife, or the environment because such wastes or constituents or combinations of such wastes:

Have short-lived, toxic properties that may cause death, injury, or illness or have mutagenic, teratogenic, or carcinogenic properties; or

Are corrosive, explosive, flammable, or may generate pressure through decomposition or other means.

Dangerous wastes shall specifically include those wastes designated as dangerous by chapter 173-303 WAC;

"Department" means the department of ecology;

"Emissions" means the substances released to the environment which must be reported under toxic chemical release reporting, 40 CFR Part 372;

"EPA/state identification number" means the number assigned by the environmental protection agency (EPA) or by the department of ecology to each generator and/or transporter and treatment, storage, and/or disposal facility;

"Extremely hazardous waste" means any dangerous waste which:

Will persist in a hazardous form for several years or more at a disposal site and which in its persistent form:

Presents a significant environmental hazard and may be concentrated by living organisms through a food chain or may affect the genetic make-up of man or wildlife; and

Is highly toxic to man and wildlife;

If disposed of at a disposal site in such quantities as would present an extreme hazard to man or the environment.

Extremely hazardous waste shall specifically include those wastes designated as extremely hazardous by chapter 173-303 WAC;

"Facility" means any geographical area that has been assigned an EPA/state identification number or in the case of a hazardous substance user, means all buildings, equipment, structures, and other stationary items located on a single site or on contiguous or adjacent sites and owned or operated by the same person;

"Generate" means any act or process which produces hazardous waste or first causes a hazardous waste to become subject to regulation;

"Hazardous waste" means and includes all dangerous and extremely hazardous wastes but for the purposes of this chapter excludes all radioactive wastes or substances composed of both radioactive and hazardous components;

"Interrelated facility" means multiple facilities owned or operated by the same person;

"Known generators" means persons that have notified the department, have received an EPA/state identification number and generate quantities of hazardous waste regulated under chapter 70.105 RCW.

"Person" means an individual, trust, firm, joint stock company, partnership, association, state, public or private or municipal corporation, commission, political subdivision of a state, interstate body, the federal government including any agency or officer thereof, and any Indian tribe or authorized tribal organization;

"Plan" means the plan provided for in RCW 70.95C.200;

"Potential generators" means all persons whose primary business activities are identified by the department to be likely to generate any quantity of hazardous wastes.

"Price deflator" means the United States Department of Commerce Bureau of Economic Analysis, "Implicit Price Deflator for Gross National Product" for "Government Purchases of Goods and Services," for "State and Local Government."

"Primary business activity" means a business activity which accounts for more than fifty percent of a business' total gross receipts or in the case of more than two business activities, the activity which has the largest gross receipts. Where a business engages in multiple activities and one or more of those activities generate hazardous waste, the gross receipts from all waste generating activities will be combined to determine their ratio to the total gross receipts of the business.

"Recycled for beneficial use" means the use of hazardous waste, either before or after reclamation, as a substitute for a commercial product or raw material, but does not include:

- Use constituting disposal;
- Incineration; or
- Use as a fuel.

"Substantially similar processes" means processes that are essentially interchangeable, inasmuch as they use similar equipment and materials and produce similar products or services and generate similar wastes.

"Waste generation site" means any geographical area that has been assigned an EPA/state identification number.

[Statutory Authority: Chapter 70.95E RCW. 91-08-040 (Order 90-56), § 173-305-020, filed 4/1/91, effective 5/2/91. Statutory Authority: Chapter 70.105A RCW. 84-05-012 (Order DE 83-38), § 173-305-020, filed 2/7/84.]

WAC 173-305-030 Penalty for failure to pay the fee. If a known or potential generator or a person required to prepare a plan fails to pay all or any part of a fee imposed under this chapter, the department of revenue shall charge a penalty of three times the amount of the unpaid fee. The department of revenue shall waive any penalty in accordance with RCW 82.32.105. Note: See WAC 458-20-228 for a discussion of the circumstances under which a penalty may be waived.

[Statutory Authority: Chapter 70.95E RCW. 91-08-040 (Order 90-56), § 173-305-030, filed 4/1/91, effective 5/2/91. Statutory Authority: Chapter 70.105A RCW. 84-05-012 (Order DE 83-38), § 173-305-030, filed 2/7/84.]

WAC 173-305-040 Adjustment of fees. On an annual basis, the department shall adjust the fees provided for by this chapter, including the maximum annual fee and the maximum total fees, by conducting the calculation in subsection (1) of this section and taking the actions set forth in subsection (2) of this section:

(1) In November of each year, the base fee and the additional fee, or the fees as subsequently adjusted by this section, shall be multiplied by a factor equal to the most current quarterly "price deflator" available, divided by the "price deflator" used in the numerator the previous year. However, the "price deflator" used in the denominator for the first adjustment shall be divided by the second quarter "price deflator" for 1990.

(2) Each year by March 1, the schedule, as adjusted in subsection (1) of this section, will be published. The department will round the published fees to the nearest dollar.

[Statutory Authority: Chapter 70.95E RCW. 91-08-040 (Order 90-56), § 173-305-040, filed 4/1/91, effective 5/2/91. Statutory Authority: Chapter 70.105A RCW. 84-05-012 (Order DE 83-38), § 173-305-040, filed 2/7/84.]

WAC 173-305-050 General administrative provisions. The review provisions contained in chapter 82.32 RCW, except RCW 82.32.050 and 82.32.090, apply to the collection and enforcement of fees imposed pursuant to this chapter. Requests for administrative review should be directed to the Department of Revenue, Taxpayer Accounts Administration, Mailstop AX-02, Olympia, Washington 98504-0090. The review provisions of chapter 43.21B RCW do not apply to the administration of these fees.

[Statutory Authority: Chapter 70.95E RCW. 91-08-040 (Order 90-56), § 173-305-050, filed 4/1/91, effective 5/2/91. Statutory Authority: Chapter 70.105A RCW. 84-05-012 (Order DE 83-38), § 173-305-050, filed 2/7/84.]

WAC 173-305-110 Fees. (1) The fee imposed is a thirty-five dollar (or as adjusted by WAC 173-305-040) annual fee payable by known and potential generators of hazardous waste. The fee for the 1990 fee period shall be due on October 1, 1990, for any known or potential generator operating in Washington after March 22, 1990. The fee for the 1991 calendar year, and the 1990 fee period for any known or potential generator who began business after October 1, 1990, shall be due February 28, 1992. The annual fee for calendar year 1992 and each calendar year thereafter shall be due on February 28 of the next succeeding year.

(2) The department will determine known generators based on the most current verified information available to the department.

(3) The department has determined potential generators to be those persons engaged in any of the following primary business activities:

Table 1
Primary Business Activities of Potential Generators

Primary business activities	Description
SOIL PREPARATION SERVICES:	Includes establishments primarily engaged in application of fertilizer, seed bed preparation, and other services for improving the soil for crop planting such as weed control.
CROP PROTECTING SERVICES:	Includes establishments primarily engaged in performing crop protecting services such as disease, weed, and insect control.
METAL MINING:	Includes establishments primarily engaged in mining, developing mines, or exploring for metallic minerals. These ores are valued chiefly for the metals contained, to be recovered for use as such or as constituents of alloys, chemicals, pigments, or other products. Includes mills which crush, grind, wash, dry, sinter, calcine, or leach ore, or perform gravity separation or flotation operations.
GENERAL BUILDING CONTRACTORS:	Includes general contractors and operative builders primarily engaged in the construction of nonresidential buildings.
HEAVY CONSTRUCTION, EXCLUDING BUILDINGS:	Includes general contractors primarily engaged in heavy construction other than building, such as highways and streets, bridges, sewers, railroads, irrigation products, flood control products and marine construction, and special trade contractors primarily engaged in activities of a type that are clearly specialized to such heavy construction and are not normally performed on buildings or building-related projects.
PAINTING:	Includes special trade contractors primarily engaged in painting.
FLOOR LAYING AND OTHER FLOOR WORK, NOT ELSEWHERE CLASSIFIED:	Includes special trade contractors primarily engaged in the installation of asphalt tile, linoleum, and resilient flooring, in laying, scraping, and finishing parquet and other hardwood flooring.
BEVERAGES:	Includes establishments primarily engaged in manufacturing malt beverages or malt byproducts; manufacturing wines, brandy, and brandy spirits including the blending of wines; manufacturing alcoholic liquors by distillation or by mixing liquors and other ingredients; manufacturing soft drinks and carbonated waters; and manufacturing flavoring extracts, syrups, powders, and related products.
TEXTILE MILL PRODUCTS:	Includes establishments primarily engaged in performing any of the following operations: (1) preparation of fiber and subsequent manufacturing of yarn, thread, braids, twine, and cordage; (2) manufacturing broadwoven fabrics, narrow woven fabrics, knit fabrics, and carpets and rugs from yard; (3) dyeing and finishing fiber, yarn, fabrics, and knit apparel; (4) coating, waterproofing, or otherwise treating fabrics; (5) the integrated manufacture of knit apparel and other finished articles from yarn; and (6) the manufacture of felt goods, lace goods, nonwoven

fabrics, and miscellaneous textiles.

SAWMILLS AND PLANING MILLS, GENERAL: Includes establishments primarily engaged in sawing rough lumber and timber from logs and bolts, or resawing cants and flitches into lumber, including box lumber and softwood cut stock; planing mills combined with sawmills; and separately operated planing mills which are engaged primarily in producing surfaced lumber and standard workings or patterns of lumber. This industry includes establishments primarily engaged in sawing lath and railroad ties and in producing tobacco hogshead stock, wood chips, and snow fence lath.

HARDWOOD DIMENSION AND FLOORING MILLS: Includes establishments primarily engaged in manufacturing hardwood dimension lumber and workings therefrom; and other hardwood dimension, semifabricated or ready for assembly; hardwood flooring; and wood frames for household furniture.

MILLWORK: Includes establishments primarily engaged in manufacturing fabricated wood millwork, including wood millwork covered with materials such as metal and plastics. Planing mills primarily engaged in producing millwork are included in this industry.

WOOD KITCHEN CABINETS: Includes establishments primarily engaged in manufacturing wood kitchen cabinets and wood bathroom vanities, generally for permanent installation.

HARDWOOD VENEER AND PLYWOOD: Includes establishments primarily engaged in producing commercial hardwood veneer and those primarily engaged in manufacturing commercial plywood or prefinished hardwood plywood. This includes nonwood backed or faced veneer and nonwood faced plywood.

SOFTWOOD VENEER AND PLYWOOD: Includes establishments primarily engaged in producing commercial softwood veneer and plywood, from veneer produced in the same establishment or from purchased veneer.

WOOD PRESERVING: Includes establishments primarily engaged in treating wood, sawed or planed in other establishments, with creosote or other preservatives to prevent decay and to protect against fire and insects. This industry also includes the cutting, treating, and selling of poles, posts and piling, but establishments primarily engaged in manufacturing other wood products, which they may also treat with preservatives, are not included.

RECONSTITUTED WOOD PRODUCTS: Includes establishments primarily engaged in manufacturing reconstituted wood products. Important products of this industry are hardboard, particleboard, insulation board, medium density fiberboard, waferboard, and oriented strandboard.

WOOD PRODUCTS, NOT ELSEWHERE CLASSIFIED: Includes establishments primarily engaged in manufacturing wood products, not elsewhere classified, and products from rattan, reed, splint, straw, veneer, veneer strips, wicker, and willow.

FURNITURE AND FIXTURES: Includes establishments primarily engaged in manufacturing household, office, public building, and restaurant furniture; and office and store fixtures.

PAPER AND ALLIED PRODUCTS: Includes establishments primarily engaged in the manufacture of pulps from wood and other cellulose fibers, and from rags; the manufacture of paper and paperboard; and the manufacture of paper and paperboard into converted products, such as paper coated off the paper machine, paper bags, paper boxes, and envelopes. Also included are establishments primarily engaged in manufacturing bags of plastics film and sheet.

PRINTING AND PUBLISHING: Includes establishments primarily engaged in printing by one or more common processes, such as letterpress; lithography (including offset), gravure, or screen; and those establishments which perform services for the printing trade, such as bookbinding and platemaking and also includes establishments engaged in publishing newspapers, books, and periodicals.

CHEMICALS AND ALLIED PRODUCTS: Includes establishments primarily engaged in producing basic chemicals, and establishments manufacturing products by predominantly chemical processes.

PETROLEUM REFINING AND RELATED INDUSTRIES: Includes establishments primarily engaged in petroleum refining, manufacturing paving and roofing materials, and compounding lubricating oils and greases from purchased materials.

RUBBER AND MISCELLANEOUS PLASTIC PRODUCTS: Includes establishments primarily engaged in manufacturing products from plastics resins and from natural, synthetic, or reclaimed rubber, gutta percha, balata, or butta siak.

STONE, CLAY, AND GLASS PRODUCTS: Includes establishments primarily engaged in manufacturing flat glass and other glass products, cement, structural clay products, pottery, concrete and gypsum products, cut stone, abrasive and asbestos products, and other products from materials taken principally from the earth in the form of stone, clay, and sand.

PRIMARY METAL INDUSTRIES: Includes establishments primarily engaged in smelting and refining ferrous and nonferrous metals from ore, pig, or scrap; in rolling, drawing, and alloying metals; in manufacturing castings and other basic metal products; and in manufacturing nails, spikes, and insulated wire and cable. This group includes the production of coke.

FABRICATED METAL PRODUCTS: Includes establishments primarily engaged in fabricating ferrous and nonferrous metal products, such as metal cans, tinware, handtools, cutlery, general hardware, nonelectric heating apparatus, fabricated structural metal products, metal forgings, metal stampings, ordnance (except vehicles and guided missiles), and a variety of metal and wire products, not elsewhere classified.

INDUSTRIAL AND COMMERCIAL MACHINERY AND COMPUTER EQUIPMENT: Includes establishments primarily engaged in manufacturing industrial and commercial machinery and equipment and computers.

ELECTRONIC AND OTHER ELECTRICAL EQUIPMENT AND COMPONENTS, EXCEPT COMPUTER EQUIPMENT: Includes establishments primarily engaged in manufacturing machinery, apparatus, and supplies for the generation, storage, transmission, transformation, and utilization of electrical energy. Included are the manufacturing of electricity distribution equipment; electrical industrial apparatus; household appliances; electrical lighting and writing equipment; radio and television receiving equipment; communications equipment; electronic components and accessories; and other electrical equipment and supplies.

TRANSPORTATION EQUIPMENT: Includes establishments primarily engaged in manufacturing equipment for transportation of passengers and cargo by land, air, and water. Important products produced by establishments classified in this major group include motor vehicles, aircraft, guided missiles, and space vehicles, ships, boats, railroad equipment, and miscellaneous transportation equipment, such as motorcycles, bicycles, and snowmobiles.

INSTRUMENTS; MEASURING, ANALYZING, AND CONTROLLING PHOTOGRAPHIC, MEDICAL, AND OPTICAL GOODS; WATCHES AND CLOCKS: Includes establishments primarily engaged in manufacturing instruments (including professional and scientific) for measuring, testing, analyzing, and controlling, and their associated sensors and accessories; optical instruments and lenses; surveying and drafting instruments; hydrological, hydrographic, meteorological, and geophysical equipment; search, detection, navigation, and guidance systems and equipment; surgical, medical, and dental instruments, equipment, and supplies; ophthalmic goods; photographic equipment and supplies; and watches and clocks.

JEWELRY, SILVERWARE, AND PLATED WARE: Includes establishments primarily engaged in manufacturing jewelry and other articles made of precious metals with or without stones; and includes manufacturing flatware, hollowware, ecclesiastical ware, trophies, trays, and related products made of sterling silver; of metal plated with silver, gold, or other metal; of nickel silver; of pewter; or of stainless steel.

TOYS AND SPORTING GOODS: Includes establishments primarily engaged in manufacturing: Sporting and athletic goods such as fishing tackle, golf and tennis goods, skis and skiing equipment.

SIGNS AND ADVERTISING SPECIALTIES: Includes establishments primarily engaged in manufacturing electrical, mechanical, cutout, or plate signs and advertising displays, including neon signs, and advertising specialties.

RAILROAD TRANSPORTATION: Includes establishments furnishing transportation by line-haul railroad, and switching and terminal establishments.

LOCAL AND INTERURBAN PASSENGER TRANSIT: Includes establishments primarily engaged in furnishing local and suburban passenger transportation.

WATER TRANSPORTATION: Includes establishments primarily engaged in freight and passenger transportation on the open seas or inland waters, and establishments furnishing such incidental services as lighterage, towing, and canal operation. This major group also includes excursion boats, sightseeing boats, and water taxis.

TRANSPORTATION BY AIR: Includes establishments primarily engaged in furnishing domestic and foreign transportation by air and also those operating airports and flying fields and furnishing terminal services.

ELECTRIC SERVICES: Includes establishments primarily engaged in the generation, transmission, and/or distribution of electric energy for sale.

COMBINATION ELECTRIC AND GAS, AND OTHER UTILITY SERVICES: Includes establishments providing electric or gas services in combination with other services.

SANITARY SERVICES: Includes establishments primarily engaged in the collection and disposal of wastes conducted through a sewer system; and includes establishments primarily engaged in the collection and disposal of refuse by processing or destruction or in the operation of incinerators, waste treatment plants, landfills, or other sites for disposal of such materials.

MOTOR VEHICLES, PARTS, AND SUPPLIES: Includes establishments primarily engaged in the wholesale distribution of new and used passenger automobiles, trucks, trailers, and other motor vehicles, including motorcycles, motor homes, and snowmobiles; the wholesale distribution of motor vehicle supplies, accessories, tools and equipment except tires; and new motor vehicle parts; the distribution at wholesale or retail of used motor vehicle parts and those primarily engaged in dismantling motor vehicles for the purpose of selling parts.

ELECTRICAL APPARATUS AND EQUIPMENT, WIRING SUPPLIES, AND CONSTRUCTION MATERIALS: Includes establishments primarily engaged in the wholesale distribution of electrical power equipment for the generation, transmission, distribution, or control of electric energy; electrical construction materials for outside power transmission lines and for electrical systems; and electric light fixtures and bulbs.

MACHINERY, EQUIPMENT, AND SUPPLIES: Includes establishments primarily engaged in the wholesale distribution of construction or mining cranes, excavating machinery and equipment, power shovels, road construction and maintenance machinery, tractor-mounting equipment and other specialized machinery and equipment used in the construction, mining, and logging industries; distribution of agricultural machinery and equipment for use in the preparation and maintenance of the soil, the planting and harvesting of crops, and other operations and processes pertaining to work on the farm or the lawn or garden; and dairy and other livestock

equipment; wholesale distribution of industrial machinery and equipment.

MISCELLANEOUS DURABLE GOODS: Includes establishments primarily engaged in assembling, breaking up, sorting, and wholesale distribution of scrap and waste materials.

CHEMICALS AND ALLIED PRODUCTS: Includes establishments primarily engaged in the wholesale distribution of plastics materials, and of unsupported plastics film, sheets, sheeting, rods, tubes, and other basic forms and shapes; whole distribution of chemicals and allied products, such as acids, industrial and heavy chemicals, dye stuffs, industrial salts, rosin, and turpentine.

PETROLEUM AND PETROLEUM PRODUCTS: Includes establishments primarily engaged in the wholesale distribution of crude petroleum and petroleum products, including liquefied petroleum gas, from bulk liquid storage facilities; wholesale distribution of petroleum and petroleum products, except those with bulk liquid storage facilities. Included are packaged and bottled petroleum products distributors, truck jobbers, and others marketing petroleum and its products at wholesale, but without bulk liquid storage facilities.

FARM SUPPLIES: Includes establishments primarily engaged in the wholesale distribution of fertilizers, agricultural chemicals, and pesticides.

NEW AND USED CAR DEALERS: Includes establishments primarily engaged in the retail sale of new automobiles or new and used automobiles. These establishments frequently maintain repair departments and carry stocks of replacement parts, tires, batteries, and automotive accessories.

GASOLINE SERVICE STATIONS: Includes gasoline service stations primarily engaged in selling gasoline and lubricating oils.

LAUNDRY, CLEANING, AND GARMENT SERVICES: Includes establishments primarily engaged in operating mechanical laundries with steam or other power; linen supply; coin-operated laundries and drycleaning; drycleaning plants, except rug cleaning; carpet and upholstery cleaning; and industrial launderers. Establishments that solely operate coin-operated washing machines and dryers and establishments that solely clean carpets or rugs are not included.

DISINFECTING AND PEST CONTROL SERVICES: Includes establishments primarily engaged in disinfecting dwelling and other buildings, and in termite, insect, rodent, and other pest control, generally in dwellings or other buildings.

TRUCK RENTAL AND LEASING, WITHOUT DRIVERS: Includes establishments primarily engaged in short-term rental or extended-term leasing of trucks, truck tractors, or semitrailers without drivers.

AUTOMOTIVE REPAIR SHOPS: Includes establishments primarily engaged in the repair of automotive tops, bodies, and interiors, or automotive painting and refinishing;

customizing automobiles, trucks, and vans except on a factor basis; the installation, repair, or sale and installation of automotive exhaust systems; the repairing and retreading of automotive tires; installation, repair, or sales and installation of automotive transmission; general automotive repair; specialized automotive repair, such as fuel service (carburetor repair), brake relining, front end and wheel alignment, and radiator repair.

MISCELLANEOUS REPAIR SHOPS AND RELATED SERVICES: Includes establishments primarily engaged in general repair work by welding, including automotive welding; rewinding armatures and rebuilding or repairing electric motors; specialized repair services, such as bicycle repair, leather goods repair; lock and gun repair, including the making of lock parts or gun parts to individual order; musical instrument repair; septic tank cleaning; farm machinery repair; furnace cleaning; motorcycle repair; tank truck cleaning; taxidermists; tractor repair; and typewriter repair.

HOSPITALS: Includes establishments primarily engaged in providing diagnostic services, extensive medical treatment including surgical services, and other hospital services, as well as continuous nursing services; providing general medical and surgical services and other hospital services; providing diagnostic medical services and inpatient treatment for the mentally ill; providing diagnostic services, treatment, and other hospital services for specialized categories of patients, except mental.

MEDICAL LABORATORIES: Includes establishments primarily engaged in providing professional analytic or diagnostic services to the medical profession, or to the patient on prescription of a physician.

COLLEGES, UNIVERSITIES, PROFESSIONAL SCHOOLS, AND JUNIOR COLLEGES: Colleges, universities, and professional schools furnishing academic courses and granting academic degrees; or junior colleges and technical institutes furnishing academic, or academic and technical, courses, and granting associate academic degrees, certificates, or diplomas.

RESEARCH AND TESTING SERVICES: Includes establishments primarily engaged in commercial physical and biological research and development on a contract or fee basis; or performing noncommercial research into and dissemination of, information for public health, education, or general welfare; or providing testing services.

ENVIRONMENTAL QUALITY: Government establishments primarily engaged in regulation, planning, protection and conservation of air and water resources; solid waste management; water and air pollution control and prevention; flood control; drainage development, and consumption of water resources; coordination of these activities at intergovernmental levels; research necessary for air pollution abatement and control and conservation of water resources; and government establishments primarily engaged in regulation, supervision and control of land use, including recreational areas; conservation and preservation of natural resources; control of wind and water erosion; and the administration and protection of

publicly and privately owned forest lands, including pest control. Planning, management, regulation, and conservation of game, fish, and wildlife populations, including wildlife management areas and field stations; and other matters relating to the protection of fish, game, and wildlife. Establishments which only provide information and education services to others are not included.

NATIONAL SECURITY: Includes establishments of the armed forces, including the National Guard, primarily engaged in national security and related activities.

(4) A potential generator shall be exempt from the fee if the potential generator is entitled to the exemption in RCW 82.04.300 in the current calendar year.

[Statutory Authority: Chapter 70.95E RCW. 91-08-040 (Order 90-56), § 173-305-110, filed 4/1/91, effective 5/2/91.]

WAC 173-305-120 Responsibilities of the departments of ecology and revenue. (1) The legislature has provided that the primary responsibilities of the department of ecology are to provide the department of revenue with a list of known generators and to determine the primary business activities of potential generators.

(2) The legislature has provided that the primary responsibility of the department of revenue is to collect the fees from known and potential generators as identified in subsection (1) of this section.

(3) The department of ecology will periodically amend the list of primary business activities of potential generators by reviewing the most current verified information that is available to the department.

[Statutory Authority: Chapter 70.95E RCW. 91-08-040 (Order 90-56), § 173-305-120, filed 4/1/91, effective 5/2/91.]

WAC 173-305-210 Imposition of fee. (1) The fee is imposed on hazardous waste generators and hazardous substance users required to prepare plans under RCW 70.95E.030. The department may waive the fee for individual facilities when the amount owed is less than the estimated cost of collection. This provision does not waive the requirement to prepare a plan.

(2) The department will determine who specifically has to pay the fee each year and the amount of the fee based on the most current verified information available to the department. Note: Information collected on toxic emissions will not be verified.

(3) The total fees collected under RCW 70.95E.030 shall not exceed the department's cost of implementing RCW 70.95C.200.

(4) A person that develops a plan covering more than one interrelated facility as provided for in RCW 70.95C.200 shall be assessed fees only for the number of plans prepared. In instances where a person has interrelated facilities without substantially similar processes, a single document may be prepared for the convenience of management but the document must contain separate detailed plans for each facility. In these cases, each detailed plan within the document shall be assessed a fee.

[Statutory Authority: Chapter 70.95E RCW. 91-08-040 (Order 90-56), § 173-305-210, filed 4/1/91, effective 5/2/91.]

WAC 173-305-220 Additional fee. (1) The department shall calculate the adjusted fees, annual fee, and maximum total fees using the formula in subsection (3) of this section. The formula uses a risk factor of one for dangerous waste and emissions, and a multiplication factor of ten for extremely hazardous waste. For purposes of this section, hazardous waste reported on the annual dangerous waste generator report as having been either recycled on-site or recycled for beneficial use off-site, including initial amounts of hazardous substances introduced into a process and subsequently recycled for beneficial use, shall not be used in the calculation of hazardous waste generated. A facility may petition the director to exclude hazardous wastes recycled for beneficial use even if they were not reported as such on the annual dangerous waste generator report. Documentation from the hazardous waste handling facility that the hazardous waste was recycled for beneficial use must be submitted along with the petition.

(2) Fees in subsection (3) of this section are based on the following definitions:

(Note: The terms "dangerous waste" and "extremely hazardous waste" as used in this subsection utilize the same basic definition as in WAC 173-305-020, but are modified as follows for the fee calculation only.)

Dangerous waste is the number of pounds of dangerous waste reported which is not recycled for beneficial use, calculated so that wastewater discharged under permit by rule pursuant to WAC 173-303-802 is excluded.

Emissions is the number of pounds of emission reported under Toxic Chemical Release Reporting, 40 CFR Part 372, by a company. If emissions are reported in ranges, the middle value of the reported range will be used in the calculation.

Extremely hazardous waste is the number of pounds of extremely hazardous waste reported which is not recycled for beneficial use, calculated so that wastewater discharged under permit by rule pursuant to WAC 173-303-802 is excluded.

The priced deflator is the "*Implicit Price Deflator for Gross National Product*" for "*Government Purchases of Goods and Services*" for "*State and Local Government*."

The total risk pounds for a facility or set of interrelated facilities is equal to ten times the number of pounds of extremely hazardous waste generated plus the number of pounds of dangerous waste generated plus the number of pounds of emission reported by that facility.

(3) The annual fee for a facility or set of interrelated facilities shall be equal to the rate per risk pound times the total risk pounds. The rate for the risk pounds shall be calculated by the department so that the maximum total fee in (a) of this subsection can be obtained. The annual fee for each facility or set of interrelated facilities shall be subject to the limitations in (b) and (c) of this subsection.

(a) The maximum total fees collected shall be determined based on the maximum total fee for the previous year multiplied by the most current price deflator and divided by the price deflator used in the numerator for

the previous year. The price deflator used in the denominator for the first adjustment shall be the second quarter price deflator for 1990. The maximum total fees for 1990 shall be one million dollars.

(b) The maximum fee for any facility or interrelated facility shall be determined based on the maximum total fee for the previous year multiplied by the most current price deflator and divided by the price deflator used in the numerator for the previous year. The price deflator used in the denominator for the first adjustment shall be the second quarter price deflator for 1990. The maximum annual fee for 1990 shall be ten thousand dollars.

(c) The maximum annual fee for a generator that generates between two thousand six hundred forty and four thousand pounds of dangerous and extremely hazardous waste shall be determined based on the maximum total annual fee for the previous year multiplied by the most current price deflator and divided by the price deflator used in the numerator for the previous year. The price deflator used in the denominator for the first adjustment shall be the second quarter price deflator for 1990. The maximum annual fee for 1990 shall be fifty dollars.

[Statutory Authority: Chapter 70.95E RCW. 91-08-040 (Order 90-56), § 173-305-220, filed 4/1/91, effective 5/2/91.]

WAC 173-305-230 Due dates. (1) Fees imposed by RCW 70.95E.030 shall be first due on July 1, 1991, for facilities that are required to prepare plans in 1992, on July 1, 1992, for facilities that are required to prepare plans in 1993, and on July 1, 1993, for facilities that are required to prepare plans in 1994. Fees for facilities that are required to prepare plans following 1994 shall be first due on July 1 of the year following the first year that they generate more than two thousand six hundred forty pounds of hazardous waste and/or are required to report under Section 313 of Title III of the Superfund Amendments and Reauthorization Act.

(2) If a facility pays a fee in anticipation of preparing a plan the following year, and circumstances change so that the facility is no longer required to prepare a plan, the facility may request a refund of the fee from the department and, upon verification of the information submitted, it shall be granted. This request is made by letter to the department.

[Statutory Authority: Chapter 70.95E RCW. 91-08-040 (Order 90-56), § 173-305-230, filed 4/1/91, effective 5/2/91.]

WAC 173-305-240 Responsibilities of the departments of ecology and revenue. (1) The legislature has provided that the primary responsibility of the department of ecology is to provide the department of revenue by April 30 of each year with a list of persons subject to the fee and the amount of their fee. The fees shall be calculated based on the formulas in WAC 173-305-220(3).

(2) The department of ecology shall subtract any overpayment of the fee in the previous year from the fee for the current year. The department shall also subtract any interest accrued on an overpayment from the fee for the current year if the overpayment was made due to an

error which was the responsibility of the department or an over estimate of rate per risk pound for the prior year.

(3) If there are resubmissions of hazardous waste annual reports and/or toxic release inventory reports, the department shall add any underpayment of the fee in previous years to the fee for the current year.

(4) The legislature has provided that the primary responsibility of the department of revenue is to collect the fees from those identified in subsection (1) of this section.

[Statutory Authority: Chapter 70.95E RCW. 91-08-040 (Order 90-56), § 173-305-240, filed 4/1/91, effective 5/2/91.]

Chapter 173-307 WAC PLANS

WAC

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WAC 173-307-010 Purpose. This chapter implements chapter 70.95C RCW, an act relating to hazardous waste reduction. The act encourages voluntary efforts to redesign industrial, commercial, production, and other processes to result in the reduction or elimination of hazardous waste by-products and to maximize the in-process reuse or reclamation of valuable spent material. The act establishes a legislative policy to encourage reduction in the use of hazardous substances and reduction in the generation of hazardous waste whenever economically and technically practicable. It also adopts as a policy goal for Washington state the reduction of hazardous waste generation, through hazardous substance use reduction and waste reduction techniques, by fifty percent by 1995. Some individual facilities may have the ability to reduce the use of hazardous materials and the generation of hazardous wastes by far greater than fifty percent while others may not be able to reduce by as much as fifty percent. Therefore, the fifty percent reduction goal is not applied as a regulatory requirement. The plans provided for in this chapter are intended to achieve, for each facility, the greatest reduction economically and technically practicable. The intent of the department of ecology is to provide technical assistance, to the greatest extent possible, to those required to prepare facility plans. The purpose of this chapter is to establish the specific elements required to be included in the documents required of hazardous

waste generators and hazardous substance users under the act. The regulation also establishes completion dates and implements other requirements in the act. Copies of all rules, regulations, or statutes cited in this chapter are available from the Department of Ecology, Mailstop PV-11, Olympia, Washington 98504-8711.

[Statutory Authority: Chapter 70.95C RCW. 91-20-131 (Order 91-35), § 173-307-010, filed 10/1/91, effective 11/1/91; 91-08-041 (Order 90-57), § 173-307-010, filed 4/1/91, effective 5/2/91.]

WAC 173-307-015 Applicability. (1) The requirements of WAC 173-307-010 through 173-307-140 apply to all hazardous substance users as defined in this chapter and to hazardous waste generators who generate more than two thousand six hundred forty pounds of hazardous waste per year, except for those facilities that are primarily treatment, storage, and disposal facilities or recycling facilities. Used oil to be rerefined or burned for energy or heat recovery shall not be used in the calculation of hazardous wastes generated for purposes of this regulation, and is not required to be addressed by plans prepared under this regulation. For purposes of this section, hazardous waste reported on the annual dangerous waste generator report as having been either recycled on-site or recycled for beneficial use off-site and/or amounts of hazardous substances introduced into a process and subsequently recycled for beneficial use, shall not be used in the calculation of hazardous waste generated. A facility may petition the director to exclude hazardous wastes recycled for beneficial use even if they were not reported as such on the annual dangerous waste generator report. Documentation from the hazardous waste handling facility that the hazardous waste was recycled for beneficial use must be submitted along with the petition.

(2) Except as noted in subsection (3) of this section, each hazardous substance user and hazardous waste generator identified above must prepare one plan for each facility owned or operated.

(3) A person with multiple interrelated facilities where a significant majority of the processes are substantially similar, as defined in this chapter, may prepare a single plan covering one or more of those facilities.

(a) A person desiring to submit a single plan under this provision must first submit to the director documentation that a significant majority of the processes at the facilities are substantially similar processes in order to obtain approval prior to plan development. This documentation must be submitted by May 1 of the year prior to the plan due date.

(b) If a single plan is being prepared for two or more interrelated facilities with substantially similar processes, the sum total of the hazardous waste generated and the hazardous substances used by these facilities must be considered when applying any of the thresholds and/or percentages required by this chapter.

(c) In instances where a person has interrelated facilities without substantially similar processes, a single document may be prepared, but it must contain separate detailed plans for each facility.

(4) Facilities required by this chapter to prepare plans are also required to pay a hazardous waste fee, as described in chapter 173-305 WAC. The requirements of WAC 173-305-010 through 173-305-050 and 173-305-210 through 173-305-240 specifically apply.

[Statutory Authority: Chapter 70.95C RCW, 91-20-131 (Order 91-35), § 173-307-015, filed 10/1/91, effective 11/1/91; 91-08-041 (Order 90-57), § 173-307-015, filed 4/1/91, effective 5/2/91.]

WAC 173-307-020 Definitions. As used in this chapter, the following terms have the meanings indicated unless the context clearly requires otherwise.

"Closed-loop recycling" means that the entire process through completion of any reclamation is closed by being entirely connected with pipes or other comparable enclosed means of conveyance. Recycled materials are returned to the original process or processes.

"Dangerous waste" means any discarded, useless, unwanted, or abandoned nonradioactive substances, including but not limited to certain pesticides, or any residues or containers of such substances which are disposed of in such quantity or concentration as to pose a substantial present or potential hazard to human health, wildlife, or the environment because such wastes or constituents or combinations of such wastes:

Have short-lived, toxic properties that may cause death, injury, or illness or have mutagenic, teratogenic, or carcinogenic properties; or

Are corrosive, explosive, flammable, or may generate pressure through decomposition or other means.

Dangerous wastes shall specifically include those wastes designated as extremely hazardous by rules adopted pursuant to chapter 70.105 RCW.

"Department" means the department of ecology.

"Director" means the director of the department of ecology or the director's designee.

"EPA/state dangerous waste identification number" means the number assigned by the EPA (Environmental Protection Agency) or by the department of ecology to each generator and/or transporter and treatment, storage, and/or disposal facility.

"Extremely hazardous waste" means any dangerous waste which:

Will persist in a hazardous form for several years or more at a disposal site and which in its persistent form:

Presents a significant environmental hazard and may be concentrated by living organisms through a food chain or may affect the genetic make-up of man or wildlife; and

Is highly toxic to man and wildlife;

If disposed of at a disposal site in such quantities as would present an extreme hazard to man or the environment.

Extremely hazardous waste shall specifically include those wastes designated as extremely hazardous by rules adopted pursuant to chapter 70.105 RCW.

"Facility" means any geographical area that has been assigned an EPA/state dangerous waste identification number. In the case of a hazardous substance user not having an EPA/state dangerous waste identification

number, facility means all buildings, equipment, structures, and other stationary items located on a single site or on contiguous or adjacent sites and owned or operated by the same person.

"Fee" means the annual hazardous waste fees imposed under RCW 70.95E.020 and 70.95E.030.

"Generate" means any act or process which produces hazardous waste or which first causes a hazardous waste to become subject to regulation.

"Hazardous substance" means any hazardous substance listed as a hazardous substance as of the effective date of this section pursuant to Section 313 of Title III of the Superfund Amendments and Reauthorization Act and any further updates, and all ozone depleting compounds as defined by the Montreal Protocol of October 1987 and any further updates of the Montreal Protocol.

"Hazardous substance use reduction" means the reduction, avoidance, or elimination of the use, toxicity, or production of hazardous substances without creating substantial new risks to human health or the environment. "Hazardous substance use reduction" includes proportionate changes in the usage of hazardous substances as the usage of a hazardous substance or hazardous substances changes as a result of production changes or other business changes.

"Hazardous substance user" means any facility required to report under Section 313 of Title III of the Superfund Amendments and Reauthorization Act, except for those facilities which only distribute or use fertilizers or pesticides intended for commercial agricultural applications.

Note: This definition refers to those SARA Title III, Section 313 reporters who must prepare a plan, whereas the definition of hazardous substance refers to the substances that must be addressed in the plan.

"Hazardous waste" means and includes all dangerous and extremely hazardous wastes, but does not include radioactive wastes or a substance composed of both radioactive and hazardous components and does not include any hazardous waste generated as a result of a remedial action under state or federal law.

"Hazardous waste generator" or "generator" means any person generating hazardous waste(s) which are subject to regulation by the department.

"Hazardous waste reduction" means all in-facility practices that reduce, avoid, or eliminate the generation of hazardous wastes or the toxicity of hazardous wastes, prior to generation, without creating substantial new risks to human health or the environment.

"Interrelated facilities" means multiple facilities owned or operated by the same person.

"Office" means the office of waste reduction.

"Plan" means the plan provided for in RCW 70.95C.200.

"Person" means an individual, trust, firm, joint stock company, partnership, association, state, public or private or municipal corporation, commission, political subdivision of a state, interstate body, the federal government, including any agency or officer thereof, and any Indian tribe or authorized tribal organization.

"Process" means one or a number of steps which produces an end product or service, or a component which is to be incorporated into an end product or service.

"Product" means any hazardous substance or mixture containing hazardous substances which is used by a facility in a production or service process. Metals or metal alloys used by the facility are not considered "products" if they do not become incorporated into the hazardous waste streams and have no known pathway for the release of metals to the environment, either at the facility or subsequent to their use at the facility, such as from ultimate disposal by the consumer. Facilities will have to decide whether to group similar products (for example with different brand names) and list them as a single product. While some flexibility is left to the facility, products must be identified as a single product if they have similar chemical composition and may be used interchangeably by the facility.

Note: The term "product" as defined here and used throughout this chapter is not to be confused with the term "end product" which specifically refers to the "output" of a production process.

"Recycled for beneficial use" means the use of hazardous waste, either before or after reclamation, as a substitute for a commercial product or raw material, but does not include:

- Use constituting disposal;
- Incineration; or
- Use as a fuel.

"Recycling" means reusing waste materials and extracting valuable materials from a waste stream. Recycling does not include burning for energy recovery.

Note: While burning for energy recovery may be preferable to disposal, burning for energy recovery does not count as recycling for the purpose of chapter 70.95C RCW.

"Remedial action wastes" means hazardous wastes which result from the cleanup of sites under state or federal hazardous waste laws.

"Shifting of risks" means changing the character, location, or receptor of a toxic material without achieving a substantial reduction in the overall risk to health and safety or the environment.

"Substantially similar processes" means processes that are essentially interchangeable, inasmuch as they use similar equipment and materials and produce similar products or services and generate similar wastes.

"Treatment" means the physical, chemical, or biological processing of waste to render it completely innocuous, produce a recyclable by-product, reduce toxicity, or substantially reduce the volume of material requiring disposal as described in the priorities established in RCW 70.105.150. Treatment does not include incineration.

"Used oil" means: Lubricating fluids that have been removed from an engine crankcase, transmission, gearbox, hydraulic device, or differential of an automobile, bus, truck, vessel, plane, heavy equipment, or machinery powered by an internal combustion engine; any oil that has been refined from crude oil, used, and as a result of use, has been contaminated with physical or

chemical impurities; and any oil that has been refined from crude oil and, as a consequence of extended storage, spillage, or contamination, is no longer useful to the original purchaser. "Used oil" does not include used oil to which hazardous wastes have been added.

[Statutory Authority: Chapter 70.95C RCW. 91-20-131 (Order 91-35), § 173-307-020, filed 10/1/91, effective 11/1/91; 91-08-041 (Order 90-57), § 173-307-020, filed 4/1/91, effective 5/2/91.]

WAC 173-307-030 Plan requirements. This section establishes the specific elements required to be included in a plan. The purpose of a plan is to require serious consideration of ways in which processes and procedures may be modified to reduce dependence upon hazardous substances and/or the generation of hazardous wastes. All plans must consider opportunities based on the following priorities: Hazardous substance use reduction and hazardous waste reduction, recycling, and treatment. The plans shall consist of the following parts:

(1) Part one. Part one shall include:

(a) A written policy articulating management and corporate support for the plan and a commitment to implement planned activities and achieve established goals.

(b) The plan scope and objectives.

(c) A description of the facility type, a description of product(s) made and/or services provided, and a statement or listing of the current level(s) of production or service activity in units of measure appropriate to the industry or activity;

(d) A general overview of the processes used in production or service activities (a schematic drawing may be included);

(e) A statement providing, for the last calendar year, the total pounds of extremely hazardous waste and total pounds of dangerous waste reported on Form 4, Generator Annual Dangerous Waste Report, and, if applicable, the total pounds of toxic releases reported on Form R under SARA Title III, Section 313; and

(f) A description of current reduction, recycling, and treatment activities and documentation of hazardous substance use reduction and hazardous waste reduction efforts completed prior to the first plan due date specified in WAC 173-307-050. Clearly separate the explanations of reduction activities from recycling and other management activities.

(2) Part two. Part two shall include an identification of hazardous substances used and hazardous wastes generated by the facility, a description of the facility processes, an identification of reduction, recycling, and treatment opportunities, an evaluation of those opportunities, a selection of proposed options, a policy to prevent shifting of risks, performance goals, and an implementation schedule. Specifically, Part two shall include:

(a) An identification of products containing hazardous substances used and hazardous wastes generated. This is to be based on actual usage and generation during the most recent calendar year for which records are available. This task can be accomplished by choosing one of two approaches. The approaches are identified as the "pounds approach" and the "percentage approach."

Look at the following descriptions and requirements of each of these and determine which one you wish to use.

(i) "Pounds approach."

This approach requires you to identify the types and amounts, in either weight or volume, of hazardous waste generated and products containing hazardous substances used up to these threshold levels:

(A) All dangerous waste streams five hundred pounds or greater, any smaller dangerous waste streams which individually represents ten percent or more of the total annual hazardous wastes, and all extremely hazardous waste streams subject to regulation by the department. If this combination equals less than ninety percent of the total hazardous wastes generated, then additional dangerous wastes generated at the facility shall be included until ninety percent of the total is reached; and

(B) Each product used which contains a total of fifty percent or more of any combination of hazardous substances if one thousand pounds or more was used; each product used which contains a total of between twenty-five percent and forty-nine percent of hazardous substances if four thousand pounds or more was used; and each product used which contains a total of between ten and twenty-four percent of hazardous substances if ten thousand pounds or more was used. Any product which contains less than ten percent of any hazardous substances need not be included in the list regardless of the amount of the product used.

(C) Office products and products which are used at the facility for nonprocess routine janitorial or grounds maintenance related activities may be excluded from this list.

(D) Hazardous substances used and hazardous wastes generated in laboratory research need not be listed. Note: See Part two, (k) of this subsection for discussion on this issue.

(ii) "Percentage approach."

This approach requires you to identify the types and amounts, in either weight or volume, of hazardous waste generated and products containing hazardous substances used up to these threshold levels;

(A) All extremely hazardous waste and enough additional dangerous waste to reach ninety percent of all the hazardous waste generated; and

(B) Ninety percent of all the products used which contain hazardous substances. This selection of products should attempt to include those that contain the highest concentrations of hazardous substances and the most toxic hazardous substances.

(C) Office products and products which are used at the facility for nonprocess routine janitorial or grounds maintenance related activities may be excluded from this list.

(D) Hazardous substances used and hazardous wastes generated in laboratory research need not be listed. Note: See Part two, (k) of this subsection for discussion on this issue.

(iii) Determinations of whether these quantities are met or exceeded for either approach shall be based on the best available information. This information may be included or referenced in the plan. Available information

may include any or all of the following as necessary to determine quantities of hazardous substances contained in products; information available from material safety data sheets, information furnished upon request from manufacturers or suppliers of hazardous substances or products containing hazardous substances, information obtained from the department, and information otherwise known by the facility owner or operator.

An explanation of the procedures used to determine that the thresholds were met or exceeded must be included in this section of the plan.

(iv) The above thresholds shall only be used for plans required to be completed prior to September 2, 1996. Plans or plan updates completed from that date on must identify the types and amounts, in either weight or volume, of hazardous waste generated and hazardous substances used up to the following threshold levels;

(A) The "pounds approach" can only be used for identifying hazardous waste after September 2, 1996. This approach cannot be used for products containing hazardous substances. The thresholds for hazardous waste are:

All dangerous waste streams five hundred pounds or greater, any smaller dangerous waste streams which individually represents ten percent or more of the total annual hazardous wastes, and all extremely hazardous waste streams subject to regulation by the department. If this combination equals less than ninety-five percent of the total hazardous wastes generated, then additional dangerous wastes generated at the facility shall be included until ninety-five percent of the total is reached.

(B) The "percentage approach" remains an optional approach for hazardous waste, but it is the only approach that can be used for products. The thresholds for this approach are:

All extremely hazardous waste and enough additional dangerous waste to reach ninety-five percent of all the hazardous waste generated; and

Ninety-five percent of all the products used which contain hazardous substances.

(C) The exemptions in subitems (C) and (D) of item (ii) of this subdivision remain in effect.

(b) A detailed description of each process in the facility that generates hazardous waste or uses products containing hazardous substances as identified in the chosen approach in (a) of this subsection. This description may include a schematic drawing.

(c) For the hazardous waste and products containing hazardous substances identified in (a) of this subsection within each of the processes identified in (b) of this subsection, an identification, based on thorough research, of all reasonable opportunities for further hazardous substance use reduction, hazardous waste reduction, recycling, and treatment. Thorough research shall include, at a minimum, a review of literature commonly available to that industry or trade. The full range of potentially feasible opportunities is to be identified without regard to possible impediments to implementing the opportunities. In identifying opportunities, consideration shall be given to alternative approaches which, in the judgment of the facility management, satisfy the same demand for end

products or services but use substantially less hazardous substances or result in the generation of substantially less hazardous waste;

(d) An evaluation of the identified opportunities. Opportunities shall be grouped by priority and evaluated according to these priorities. The priorities are, in descending order: Hazardous substance use and hazardous waste reduction; recycling; and, treatment. Opportunities of a lower priority shall be given consideration only after a determination is made that the higher priority opportunities are inappropriate due to impediments to their implementation. Impediments that shall be considered acceptable include, but are not limited to: Adverse impacts on product quality, legal or contractual obligations, economic and technical practicality, safety considerations, and the creation of substantial new risks to human health or the environment.

Except with respect to the use and distribution of fertilizers or pesticides intended for commercial agricultural applications, the evaluation of hazardous waste reduction opportunities must include an evaluation of hazardous substance use reduction opportunities for those hazardous substances which subsequently result in hazardous waste streams as well as an evaluation of other opportunities for the reduction of hazardous waste.

The evaluation required under this subsection shall include an economic analysis, a technical evaluation, an identification of whether, and if so how, the identified opportunity would result in a shifting of risk(s) from one part of a process, environmental medium, or product to another and an identification of all impediments to implementing the opportunities. The economic analysis shall seek to identify the total costs associated with the current hazardous substance use and hazardous waste generation, management and disposal, compared with comparable costs associated with implementing the alternatives.

Evaluation of each opportunity may be considered complete when enough information is available to select or reject the opportunity for implementation. For opportunities rejected, the reason(s) for rejecting them shall be stated.

(e) A selection of opportunities to be implemented in accordance with the evaluation conducted in (d) of this subsection. For each selected opportunity, the process(es) it affects shall be identified, and estimates of the amount, by weight, of the reduction of hazardous substances or products containing hazardous substances and hazardous waste reduction which would be achieved through implementation shall be stated, as well as the amount of hazardous wastes recycled or treated as a result of implementation shall be included;

(f) A written policy stating that in implementing the selected options whenever technically and economically practicable, risks will not be shifted from one part of a process, environmental medium, or product to another;

(g) Specific performance goals in each of the following categories, expressed in numeric terms:

(i) Hazardous substances or products containing hazardous substances to be reduced or eliminated from use;

(ii) Hazardous wastes to be reduced or eliminated through hazardous waste reduction techniques;

(iii) Materials or hazardous wastes to be recycled; and

(iv) Hazardous wastes to be treated.

If the establishment of numeric performance goals is not practicable, the performance goals shall include a clearly stated list of objectives designed to lead to the establishment of numeric goals as soon as is practicable. Goals shall be set for a five-year period from the first reporting date (see (h) of this subsection regarding implementation activities that will take longer than five years);

(h) A five-year implementation schedule, which shall display planned implementation activities for each of the five calendar years following completion of the plan. Information to be provided shall include, but is not limited to, the opportunities (or phases of opportunities) being implemented and related milestones. Where complete implementation of a selected opportunity will take longer than five years, the schedule shall contain relevant milestones within a five-year period and an estimated date of completion. The schedule may be in table form and organized by opportunities within processes, if desired.

(i) A description of how those hazardous wastes that are not recycled or treated and the residues from recycling and treatment processes are managed may be included in the plan.

(j) Documentation of any research conducted in fulfillment of any of the above subdivisions of this subsection shall be available to the department upon request.

(k) For research laboratories, the plan may include, in lieu of all the detailed requirements of this subsection, a description of policies and procedures to be followed by laboratory personnel regarding the use of hazardous substances and the generation of hazardous wastes through laboratory research. These policies and procedures must be consistent with the waste reduction priorities as defined in this chapter.

(3) Part three. Part three shall provide a financial description of the plan, which shall identify costs and benefits realized from implementing selected opportunities to the extent reasonably possible. Part three shall also include a description of accounting systems which will be used to identify hazardous substance use and hazardous waste management costs. Liability, compliance, and oversight costs must be components of these accounting systems.

(4) Part four. Part four of the plan shall include a description of personnel training and employee involvement programs. Each facility required to write a plan is encouraged to advise its employees of the planning process and solicit comments or suggestions from its employees on hazardous substance use and waste reduction opportunities.

[Statutory Authority: Chapter 70.95C RCW. 91-20-131 (Order 91-35), § 173-307-030, filed 10/1/91, effective 11/1/91; 91-08-041 (Order 90-57), § 173-307-030, filed 4/1/91, effective 5/2/91.]

WAC 173-307-040 Executive summary. Upon completion of a plan, the owner, chief executive officer, or other person with the authority to commit management

to the plan, such as a facility manager, shall sign and submit an executive summary of the plan to the department. This summary shall be available from the department for public inspection upon request. The facility may elect to submit the complete plan to the department rather than prepare an executive summary. In that event, the complete plan shall also be available for public inspection.

Executive summaries shall include the following information from the plan:

(1) A written policy articulating management and corporate support for the plan and a commitment to implement planned activities and achieve established goals.

(2) The plan scope and objectives.

(3) A description of the facility type and a summary of product(s) made and/or services provided.

(4) A list of the type and amount of each hazardous waste and products containing hazardous substances as identified in WAC 173-307-030 (2)(a).

(5) A brief description of each process in the facility that generates hazardous waste or uses products containing hazardous substances as listed in subdivision (d).

(6) A description of current reduction, recycling, and treatment activities, and documentation of hazardous substance use reduction and hazardous waste reduction activities completed before the first reporting date specified in WAC 173-307-050.

(7) A summary of all further hazardous substance use reduction, hazardous waste reduction, recycling, and treatment opportunities identified. Opportunities shall be identified first for hazardous substance use reduction and hazardous waste reduction, secondly for recycling, and lastly for treatment. A statement of the reason(s) for rejecting any opportunity from further consideration and a summary of all identified impediments to implementing opportunities shall be included.

(8) A description of the opportunities selected to be implemented, process(es) affected, and estimated reductions to be achieved.

(9) Specific performance goals, expressed in numeric terms for each of the categories listed below (assumptions on changing production or service activity levels during the period covered by the plan must be described):

(a) Hazardous substances to be reduced or eliminated from use;

(b) Hazardous wastes to be reduced or eliminated through waste reduction techniques;

(c) Materials or hazardous wastes to be recycled; and

(d) Hazardous wastes to be treated.

If the establishment of numeric performance goals is not practicable, the performance goals shall include a clearly stated list of objectives designed to lead to the establishment of numeric goals as soon as is practicable. Goals shall be set for a five-year period from the first reporting date.

(10) The five-year implementation schedule identified in WAC 173-307-030 (2)(h) which shall display planned implementation activities for each of the five calendar years following completion of the plan.

(11) A summary of costs and benefits realized from implementing selected opportunities.

(12) For research labs, the executive summary may include, in lieu of all the detailed requirements of this section, a description of policies and procedures to be followed by laboratory personnel regarding the use of hazardous substances and the generation of hazardous waste through laboratory research. These policies and procedures must be consistent with the waste reduction priorities as defined in this chapter.

[Statutory Authority: Chapter 70.95C RCW. 91-20-131 (Order 91-35), § 173-307-040, filed 10/1/91, effective 11/1/91; 91-08-041 (Order 90-57), § 173-307-040, filed 4/1/91, effective 5/2/91.]

WAC 173-307-050 Due dates. Plans shall be completed and executive summaries submitted in accordance with the following schedule:

(1) Hazardous waste generators who generated more than fifty thousand pounds of hazardous waste in calendar year 1991 and hazardous substance users who were required to report in 1991, by September 1, 1992;

(2) Hazardous waste generators who generated between seven thousand and fifty thousand pounds of hazardous waste in calendar year 1992 and hazardous substance users who were required to report for the first time in 1992, by September 1, 1993;

(3) Hazardous waste generators who generated between two thousand six hundred forty and seven thousand pounds of hazardous waste in 1993 and hazardous substance users who were required to report for the first time in 1993, by September 1, 1994;

(4) Hazardous waste generators who have not been required to complete a plan on or prior to September 1, 1994, must complete a plan by September 1 of the year following the first year that they generate more than two thousand six hundred forty pounds of hazardous waste; and

(5) Hazardous substance users who have not been required to complete a plan on or prior to September 1, 1994, must complete a plan by September 1 of the year following the first year that they are required to report under Section 313 of Title III of the Superfund Amendments and Reauthorization Act.

[Statutory Authority: Chapter 70.95C RCW. 91-08-041 (Order 90-57), § 173-307-050, filed 4/1/91, effective 5/2/91.]

WAC 173-307-060 Plan availability. Plans developed under chapter 173-307 WAC shall be kept at the facility and made available for review to authorized representatives of the department. The plan is not a public record under the public disclosure laws of the state of Washington contained in chapter 42.17 RCW, unless submitted in lieu of an executive summary as provided for in WAC 173-307-040.

[Statutory Authority: Chapter 70.95C RCW. 91-20-131 (Order 91-35), § 173-307-060, filed 10/1/91, effective 11/1/91; 91-08-041 (Order 90-57), § 173-307-060, filed 4/1/91, effective 5/2/91.]

WAC 173-307-070 Plan amendments and updates.

(1) A plan must be kept reasonably current and may be

amended in response to changes in facility operations, substances used, or wastes generated.

(a) Users or generators shall notify the department of an amended plan and submit amendments to their plan or executive summary, whichever was originally submitted, including an identification of which sections are being amended. The implementation schedule of the amended plan and/or new executive summary shall be within the original five-year timeline initiated by completion of the original plan.

(b) Even if a plan is amended, a five-year plan update will still be required five years from completion of the first plan, or from the last five-year update.

(2) Every five years, each plan shall be updated, and the plan or a new executive summary shall be submitted to the department. A plan update shall conform to the requirements for preparing reduction plans as specified in this chapter.

[Statutory Authority: Chapter 70.95C RCW. 91-20-131 (Order 91-35), § 173-307-070, filed 10/1/91, effective 11/1/91; 91-08-041 (Order 90-57), § 173-307-070, filed 4/1/91, effective 5/2/91.]

WAC 173-307-080 Progress reports. Progress reports shall be submitted to the department annually on September 1 following the due date of the plan. The purpose of the progress report is to provide information on quantities of hazardous waste and hazardous substances or products containing hazardous substances reduced in the prior twelve-month period.

(1) Progress reports shall include a discussion of:

(a) Performance goals. If numeric performance goals were listed in the plan, progress toward these goals shall be discussed. If numeric performance goals were not listed in the plan, progress made toward establishing numeric goals shall be discussed, and also progress made towards achieving the goals as stated in the plan. This discussion shall include:

(i) A description of reduction, recycling, and treatment opportunities which were implemented.

(ii) A description of the process(es) impacted by each opportunity.

(iii) A description of the quantities, by weight, of hazardous substances or products containing hazardous substances reduced and hazardous waste reduced by each option. Estimation techniques, and any assumptions used shall be described. Quantities reduced must be displayed in relation to changing production levels. The description shall also include a statement of the level of production or service activity in relation to the level of production or service activity stated in the plan at the time the plan was prepared.

Note: Factors not resulting in actual reductions, such as new estimating techniques, delistings of substances or hazardous wastes, and reclassifications of waste management techniques cannot be counted or claimed as reductions.

(iv) If measurement or estimation techniques are changed from the prior reports such that reductions are not additive for the five-year planning period, a methodology for converting prior reported reductions must be described and recalculations provided.

(b) Problems encountered in the implementation process. Problems shall be clearly identified and include a discussion of steps taken or proposed to resolve problems. An update on problems reported in previous progress reports shall be included.

(2) Upon the request of two or more users or generators belonging to similar industrial classifications, the department may aggregate data contained in their annual progress reports for the purpose of developing a public record.

[Statutory Authority: Chapter 70.95C RCW. 91-20-131 (Order 91-35), § 173-307-080, filed 10/1/91, effective 11/1/91; 91-08-041 (Order 90-57), § 173-307-080, filed 4/1/91, effective 5/2/91.]

WAC 173-307-090 Review process. A user or generator required to prepare a plan shall permit the director or a representative of the director to review the plan to determine its adequacy.

(1) The department may review a plan, executive summary, or an annual progress report to determine whether the plan, executive summary, or annual progress report is adequate and shall base its determination solely on whether the plan, executive summary, or annual progress report is complete and prepared in accordance with the provisions of this chapter and the requirements of chapter 70.95C RCW.

(2) If a hazardous substance user or hazardous waste generator fails to complete an adequate plan, executive summary, or annual progress report, the department shall notify the user or generator of the inadequacy, identifying specific deficiencies. For the purposes of this section, a deficiency may include failure to develop a plan, failure to submit an executive summary, or failure to submit an annual progress report. The department shall specify a reasonable time frame, of not less than ninety days, within which the user or generator shall complete a modified plan, executive summary, or annual progress report addressing the specified deficiencies.

(3) If the department determines that a modified plan, executive summary, or annual progress report is inadequate, the department may, within its discretion, either require further modification or enter an order pursuant to WAC 173-307-100.

[Statutory Authority: Chapter 70.95C RCW. 91-08-041 (Order 90-57), § 173-307-090, filed 4/1/91, effective 5/2/91.]

WAC 173-307-100 Penalties. (1) If, after having received a list of specified deficiencies from the department, a hazardous substance user or hazardous waste generator required to prepare a plan fails to complete modification of a plan, executive summary, or annual progress report within the time period specified by the department, the department may enter an order pursuant to chapter 34.05 RCW finding the user or generator not in compliance with the requirements of RCW 70.95C.200. When the order is final, the department shall notify the department of revenue to charge a penalty fee. The penalty fee shall be the greater of one thousand dollars or three times the amount of the user's or generator's previous year's fee, in addition to the current year's fee. If no fee was assessed the previous year,

the penalty shall be the greater of one thousand dollars or three times the amount of the current year's fee. The penalty assessed under this subsection shall be collected each year after the year for which the penalty was assessed until an adequate plan, executive summary, or annual progress report is completed.

(2) If a hazardous substance user or hazardous waste generator required to prepare a plan fails to complete an adequate plan, executive summary, or annual progress report after the department has levied against the user or generator the penalty provided in subsection (1) of this section, the user or generator shall be required to pay a surcharge to the department whenever the user or generator disposes of a hazardous waste at any hazardous waste incinerator or hazardous waste landfill facility located in Washington state, until a plan, executive summary, or annual progress report is completed and determined to be adequate by the department. The surcharge shall be equal to three times the fee charged for disposal. The department shall furnish the incinerator and landfill facilities in Washington state with a list of Environmental Protection Agency/state identification numbers of the hazardous waste generators that are not in compliance with the requirements of RCW 70.95C.200.

[Statutory Authority: Chapter 70.95C RCW. 91-08-041 (Order 90-57), § 173-307-100, filed 4/1/91, effective 5/2/91.]

WAC 173-307-110 Appeals. A user or generator may appeal from a department order or a surcharge under RCW 70.95C.220 to the pollution control hearings board pursuant to chapter 43.21B RCW.

[Statutory Authority: Chapter 70.95C RCW. 91-08-041 (Order 90-57), § 173-307-110, filed 4/1/91, effective 5/2/91.]

WAC 173-307-120 Exemptions. A person required to prepare a plan because of the quantity of hazardous waste generated may petition the director to be excused from this requirement. The person must demonstrate to the satisfaction of the director that the quantity of hazardous waste generated was due to unique circumstances not likely to be repeated and that the person is unlikely to generate sufficient hazardous waste to require a plan in the next five years.

[Statutory Authority: Chapter 70.95C RCW. 91-08-041 (Order 90-57), § 173-307-120, filed 4/1/91, effective 5/2/91.]

WAC 173-307-130 Public disclosure. (1) The department shall make available for public inspection any executive summary or annual progress report submitted to the department. Any hazardous substance user or hazardous waste generator required to prepare an executive summary or annual progress report who believes that disclosure of any information contained in the executive summary or annual progress report may adversely affect the competitive position of the user or generator may request the department pursuant to RCW 43.21A-.160 to delete from the public record those portions of the executive summary or annual progress report that may affect the user's or generator's competitive position.

The department shall not disclose any information contained in an executive summary or annual progress report pending a determination of whether the department will delete any information contained in the report from the public record. This determination will be made within sixty days following a request for public inspection.

(2) Any ten persons residing within ten miles of a hazardous substance user or hazardous waste generator required to prepare a plan may file with the department a petition requesting the department to examine a plan to determine its adequacy. The department shall report its determination of adequacy to the petitioners and to the user or generator within a reasonable time. The department may deny a petition if the department has within the previous year determined the plan of the user or generator named in the petition to be adequate.

[Statutory Authority: Chapter 70.95C RCW. 91-08-041 (Order 90-57), § 173-307-130, filed 4/1/91, effective 5/2/91.]

WAC 173-307-140 Records. The department shall maintain a record of each plan, executive summary, or annual progress report it reviews, and a list of all plans, executive summaries, or annual progress reports the department has determined to be inadequate, including descriptions of corrective actions taken. This information shall be made available to the public.

[Statutory Authority: Chapter 70.95C RCW. 91-08-041 (Order 90-57), § 173-307-140, filed 4/1/91, effective 5/2/91.]

Chapter 173-312 WAC

COORDINATED PREVENTION GRANTS

WAC

173-312-010	Purpose and authority.
173-312-020	Definitions.
173-312-030	Relation to other legislation and administrative rules.
173-312-040	Applicant eligibility.
173-312-050	Project eligibility.
173-312-060	Application process.
173-312-070	Application evaluation.
173-312-080	Allocation of grant funding.
173-312-090	State assistance share and local cash match.
173-312-100	Grant administration.

WAC 173-312-010 Purpose and authority. (1) The purpose of this chapter is to set forth requirements for the conduct of a financial assistance program to provide grants to local governments for local hazardous waste plans and programs and solid waste plans and programs, pursuant to the Model Toxics Control Act, RCW 70.105D.070(3). The plans and programs referenced in RCW 70.105D.070(3) are designed to prevent or minimize environmental contamination. Therefore, the grants are designated "coordinated prevention grants" under this chapter.

(2) A further purpose of this chapter is to establish a structure for the administration of coordinated prevention grants funded from the local toxics control account authorized by RCW 82.21.030. The administrative structure may be extended to other waste management grant programs using other funding sources including

the 1972 waste disposal facilities bonds authorized by chapter 43.83A RCW, the 1980 waste disposal facilities bonds authorized by chapter 43.99 RCW, the litter control account authorized by chapter 70.93 RCW, the vehicle tire recycling account authorized by chapter 70.95 RCW, the solid waste management account authorized by chapter 70.95 RCW, the hazardous waste assistance account authorized by chapter 70.95E RCW, and other waste management funding sources that may be established in the future by the legislature.

(3) The purposes of the coordinated prevention grants program are to:

(a) Consolidate all grant programs funded from the local toxics control account, and such other programs in subsection (2) of this section as may be selected, into a single program, except for remedial action, public participation, and citizen proponent negotiations grants.

(b) Promote regional solutions and intergovernmental cooperation.

(c) Prevent or minimize environmental contamination by providing financial assistance to local governments to help them comply with state solid and hazardous waste laws and regulations.

(d) Provide funding assistance for local solid and hazardous waste planning and for implementation of some programs and projects in those plans.

(e) Encourage local responsibility for solid and hazardous waste management.

(f) Improve efficiency, consistency, reliability, and accountability of grant administration.

Note: Copies of all cited statutes, rules, and guidelines are available at the Department of Ecology, Mailstop: PV-11, Olympia, Washington 98504.

[Statutory Authority: RCW 43.21A.080, 91-11-090 (Order 90-65), § 173-312-010, filed 5/21/91, effective 6/21/91. Statutory Authority: RCW 43.21A.080 and chapter 70.105D RCW, 90-18-064 (Order 90-17), § 173-312-010, filed 9/4/90, effective 10/5/90. Statutory Authority: RCW 70.105B.220 and 70.95.220, 88-17-001 (Order 88-26), § 173-312-010, filed 8/4/88.]

WAC 173-312-020 Definitions. "Cash expenditure" means any cash outlay by the recipient, regardless of the source of funds, for direct costs of goods and/or services; salaries and benefits of recipient employees, including force account; overhead cash; and payments made to contractors.

"Class one areas" means the counties of Spokane, Snohomish, King, Pierce, and Kitsap and all the cities therein.

"Class two areas" means the counties located west of the crest of the Cascade Mountains and all the cities therein, except Snohomish, King, Pierce, and Kitsap counties.

"Class three areas" means the counties east of the crest of the Cascade Mountains and all the cities therein, except Spokane County.

"Department" means the department of ecology.

"Grant" means the portion of the project costs borne by the department.

"In-kind contributions" are property or services that benefit a project and that are contributed by a third

party, without direct monetary compensation, to the recipient (or to any contractor under the agreement). In-kind contributions include donated or loaned real or personal property, volunteer services, and employee services donated by a third party.

"Incineration" means a process of reducing the volume of solid waste by use of an enclosed device using controlled flame combustion, operating under federal and state environmental laws and regulations.

"Interlocal costs" are in-kind contributions made to a project by another local government pursuant to a valid written agreement between the recipient and the other government which details the work to be accomplished, the goods and services to be provided, and the value thereof. If the recipient reimburses another governmental entity for any portion of its contributions, the amount paid to the other entity is not an interlocal cost. It is a cash expenditure on the part of the recipient. Only the nonreimbursed portion of the other governmental entity's contributions is an interlocal cost.

"Landfill" means a disposal facility or part of a facility at which solid waste is permanently placed in or on land and which is not a landspreading disposal facility.

"Lead implementation agency" means the agency designated in the adopted local solid or hazardous waste plan as having the principal responsibility for the execution of all or most of the plan, and/or the coordinating agency which delegates responsibility to other agencies to execute portions of the plan.

"Local government" means any political subdivision, regional governmental unit, district, municipal or public corporation, including cities, towns, and counties. The term encompasses but does not refer specifically to the departments within a city, town, or county.

"Local hazardous waste plan" means the plan to manage moderate-risk waste that a local government is required to prepare pursuant to RCW 70.105.220.

"Match" means that portion of the cash expenditures borne by recipient funds and interlocal costs.

"Moderate-risk waste" means (a) any waste that exhibits any of the properties of hazardous waste but is exempt from regulation under chapter 70.105 RCW solely because the waste is generated in quantities below the threshold for regulation, and (b) any household wastes which are generated from the disposal of substances identified by the department as hazardous household substances or substances that exhibit any of the properties of hazardous waste.

"Recipient" means the entity to which the funding is awarded and which is accountable for the use of the funds provided. The recipient is the entire legal entity even if only one component or department is designated in the agreement document.

"Recyclable materials" means those solid wastes separated for recycling or reuse, such as papers, metals and glass, that are identified as recyclable material pursuant to a local comprehensive solid waste plan.

"Recycling" means transforming or remanufacturing waste materials into usable or marketable materials for use other than landfill disposal or incineration.

"Solid waste" or "wastes" means all putrescible and nonputrescible solid and semisolid wastes including, but not limited to, garbage, rubbish, ashes, industrial wastes, swill, demolition and construction wastes, abandoned vehicles or parts thereof, and recyclable materials.

[Statutory Authority: RCW 43.21A.080. 91-11-090 (Order 90-65), § 173-312-020, filed 5/21/91, effective 6/21/91. Statutory Authority: RCW 43.21A.080 and chapter 70.105D RCW. 90-18-064 (Order 90-17), § 173-312-020, filed 9/4/90, effective 10/5/90. Statutory Authority: RCW 70.105B.220 and 70.95.220. 88-17-001 (Order 88-26), § 173-312-020, filed 8/4/88.]

WAC 173-312-030 Relation to other legislation and administrative rules. (1) This rule shall, together with chapters 173-322 and 173-321 WAC, and WAC 173-303-902, fulfill the requirement for rule making set forth in RCW 70.105D.070(7).

(2) The local government receiving a grant shall comply fully with all applicable federal, state, and local laws, orders, regulations, and permits.

(3) Grants will be awarded within the limits of available funds. The obligation of the department to make grant payments is contingent upon the availability of funds through legislative appropriation and allotment, and such other conditions not reasonably foreseeable by the department which may render performance impossible.

(4) Nothing in this chapter shall influence, affect, or modify existing department programs, regulations, or enforcement of applicable laws relating to solid and hazardous waste management and cleanup.

(5) All grants shall be subject to existing applicable accounting and auditing requirements of state laws and regulations.

[Statutory Authority: RCW 43.21A.080. 91-11-090 (Order 90-65), § 173-312-030, filed 5/21/91, effective 6/21/91. Statutory Authority: RCW 43.21A.080 and chapter 70.105D RCW. 90-18-064 (Order 90-17), § 173-312-030, filed 9/4/90, effective 10/5/90. Statutory Authority: RCW 70.105B.220 and 70.95.220. 88-17-001 (Order 88-26), § 173-312-030, filed 8/4/88.]

WAC 173-312-040 Applicant eligibility. (1) Eligibility for solid waste planning grants. Counties that are required by chapter 70.95 RCW to adopt or update local solid waste plans, are eligible to apply for coordinated prevention grants to help pay for such plans. This eligibility extends to cities that have submitted an independent city plan, a joint city plan, or joint city-county plan to the department by the effective date of this rule. This eligibility also extends to any city subsequently requesting funding for the preparation of an independent plan, if such city provides for disposal sites wholly within its jurisdiction.

(2) Eligibility for solid waste enforcement grants. Jurisdictional health departments/districts are eligible to apply for coordinated prevention grants to pay for the enforcement of rules and regulations promulgated under chapter 70.95 RCW.

(3) Eligibility for solid waste implementation grants. Counties whose solid waste plans are adopted, approved, and updated by the department as required by chapter 70.95 RCW are eligible to apply for coordinated prevention grants to help pay for the implementation of

projects in the most recently approved and adopted plan, provided that such projects are eligible as defined in WAC 173-312-050. This eligibility also extends to cities that are eligible for funding to do local solid waste plans or updates as provided by subsection (1) of this section.

If such adopted plans designate lead implementation agencies to implement the plans, such agencies are also eligible to apply for coordinated prevention grants.

Solid waste plan updates must be submitted to the department no later than July 1, 1991, for class one areas; July 1, 1992, for class two areas; and July 1, 1994, for class three areas; unless an extension is granted by the department. Local governments that do not comply will not be eligible for coordinated prevention grant funding for solid waste project implementation until the required plan updates are submitted to the department.

(4) Eligibility for hazardous waste planning grants. Local governments that are required by chapter 70.105 RCW to adopt or update local hazardous waste plans are eligible to apply for coordinated prevention grants to help pay for such plans.

(5) Eligibility for hazardous waste plan implementation grants. Local governments with department-approved local hazardous waste plans as required by chapter 70.105 RCW are eligible to apply for coordinated prevention grants to help pay for the implementation of projects in the plan. If such plans designate lead implementation agencies to implement the plans, such agencies are also eligible to apply for coordinated prevention grants.

(6) Any grant-eligible entities as defined in this section may submit their requests in a unified application as described in WAC 173-312-060 (4)(a), or may submit separate applications in a package application as provided in WAC 173-312-060 (4)(b).

[Statutory Authority: RCW 43.21A.080. 91-11-090 (Order 90-65), § 173-312-040, filed 5/21/91, effective 6/21/91. Statutory Authority: RCW 43.21A.080 and chapter 70.105D RCW. 90-18-064 (Order 90-17), § 173-312-040, filed 9/4/90, effective 10/5/90. Statutory Authority: RCW 70.105B.220 and 70.95.220. 88-17-001 (Order 88-26), § 173-312-040, filed 8/4/88.]

WAC 173-312-050 Project eligibility. (1) Eligible project costs are those costs that are necessary and reasonable to fund required local planning and the implementation of some projects and programs contained in those plans, including innovative approaches implementing policies of the plan. These are:

(a) Local hazardous waste planning as required by chapter 70.105 RCW.

(b) Local solid waste planning as required by chapter 70.95 RCW.

(c) Local hazardous waste plan implementation projects.

(d) Local solid waste enforcement by the jurisdictional health departments/districts.

(e) Local solid waste plan implementation projects, which are limited to:

(i) Projects that implement the requirements of chapter 173-304 WAC for closure of publicly-owned municipal solid waste landfills will be eligible for grant funding provided all of the following criteria are met:

(A) The jurisdictional health department/district has required the landfill to reach postclosure no later than September 30, 1995;

(B) Financial assurance accounts for closure and postclosure have been established and maintained as required by chapter 173-304 WAC for landfills closed after November 27, 1989;

(C) The landfill has an approved closure plan as required by chapter 173-304 WAC;

(D) Local governments that have disposed of significant quantities of waste at the landfill make reasonable financial contribution to the costs of closure and postclosure; and

(E) The landfill is not eligible for remedial action grants under chapter 173-322 WAC or identified by the department as potentially requiring remedial action.

The total amount expended from the local toxics control account for solid waste landfill closure shall not exceed fifteen million dollars and no funds shall be expended for this purpose after December 31, 1995. No single landfill closure project shall be eligible for more than five hundred thousand dollars from the local toxics control account.

(ii) Ground water monitoring well projects to meet the requirements of WAC 173-304-490.

(iii) Waste reduction and recycling projects and programs.

(2) Eligible project costs do not include:

(a) Solid waste incinerator feasibility studies, construction, maintenance, or operation.

(b) Landfill closure as required by chapter 173-304 WAC, except for ground water monitoring wells or projects which meet the requirements of subsection (1)(e)(i) of this section.

(c) New landfill construction or landfill expansion, or landfill upgrading at an operating facility to meet the requirements of chapter 173-304 WAC.

(d) Garbage collection and disposal, except start-up costs for waste reduction and recycling programs.

(e) Solid and hazardous waste expenses not directly related to compliance with state solid and hazardous waste laws and regulations.

[Statutory Authority: RCW 43.21A.080. 91-11-090 (Order 90-65), § 173-312-050, filed 5/21/91, effective 6/21/91. Statutory Authority: RCW 43.21A.080 and chapter 70.105D RCW. 90-18-064 (Order 90-17), § 173-312-050, filed 9/4/90, effective 10/5/90. Statutory Authority: RCW 70.105B.220 and 70.95.220. 88-17-001 (Order 88-26), § 173-312-050, filed 8/4/88.]

WAC 173-312-060 Application process. (1) The department shall set forth in its grant guidelines the base funding levels estimated to be available for each county for coordinated prevention grants and the process by which applications will be submitted.

(2) The application shall be submitted by the county agency or department having responsibility for solid waste, unless the county executive department shall select another agency or department to submit the application.

(3) Coordinated prevention grant applications must:

(a) Include a commitment by the applicant(s) to use local funds to match grant funds according to the requirements of WAC 173-312-090.

(b) Be for eligible projects as defined in WAC 173-312-050.

(c) Include a scope of work that is sufficiently detailed for the department to monitor grant performance.

(d) Include documentation that all cities in the county and lead implementation agencies which have approved the adopted local hazardous waste plan or solid waste plan have had the opportunity to request that projects that meet the requirements of WAC 173-312-050 be included in the application.

(4) To obtain coordinated prevention grant funding, a county shall submit either a unified application or a package application, as defined herein:

(a) A unified grant application means that the county, the health department/district and any other grant eligible entities as defined in WAC 173-312-040 have reached agreement regarding the requested projects and funding allocations for both local solid and local hazardous waste plans and projects. The submittal will consist of a single county application with specific projects identified to be executed by the county and other local governments. Unified applications will receive financial incentives for administrative coordination set forth in WAC 173-312-090.

The unified application shall include a maximum grant request for no more than the base funding level for the county, plus the selected financial incentive.

The application shall be signed, indicating approval by responsible officials from the county, local health department/district and any other grant-eligible entities as defined in WAC 173-312-040.

(b) A package application means that the county, the local health department/district and any other grant-eligible entities as defined in WAC 173-312-040 have not reached agreement regarding the requested projects and funding allocations, or choose to submit individual applications. The maximum grant request may exceed the base funding level. A package application is not eligible for the financial incentives for administrative coordination set forth in WAC 173-312-090. A package application must be submitted by the county. A package application may consist of individual signed applications from the county, the health department/district and other grant-eligible entities as defined in WAC 173-312-040; requests from other cities will be submitted as part of the county application.

[Statutory Authority: RCW 43.21A.080. 91-11-090 (Order 90-65), § 173-312-060, filed 5/21/91, effective 6/21/91.]

WAC 173-312-070 Application evaluation. (1) In evaluating coordinated prevention grant applications, the department may require that funding of certain projects take precedence over other projects. The department will refer to the following priority order in evaluating projects:

(a) Required hazardous waste planning under chapter 70.105 RCW and required solid waste planning under chapter 70.95 RCW.

(b) Programs and projects to implement adopted local hazardous waste plans, including waste reduction and recycling.

(c) Solid waste enforcement programs.

(d) Programs and projects to implement adopted local solid waste plans, including waste reduction and recycling, ground water monitoring wells meeting the requirements of WAC 173-304-490, and publicly owned municipal solid waste landfill closure meeting the requirements of WAC 173-312-050 (1)(e)(i).

(2) The department will evaluate each application according to the extent to which it:

(a) Conforms to the adopted local hazardous waste and solid waste plans.

(b) Advances regional solutions and intergovernmental cooperation.

(c) Supports the state's goal to achieve a fifty percent recycling rate by 1995.

(d) Confers broad benefit on residents of the county, whether they reside in incorporated areas or unincorporated areas.

(e) Meets the needs of local government for projects that prevent environmental contamination from solid and hazardous waste.

(f) Uses the state's resources efficiently.

(g) For solid waste enforcement funding, takes into account the number of disposal sites and the geographic area requiring enforcement activity.

(3) The department may fund all or portions of a coordinated prevention grant application.

(4) The department may award grants to any local government in order to execute all or portions of a coordinated prevention grant program.

[Statutory Authority: RCW 43.21A.080. 91-11-090 (Order 90-65), § 173-312-070, filed 5/21/91, effective 6/21/91.]

WAC 173-312-080 Allocation of grant funding. (1) The department shall consider the following factors in calculating base funding levels, supplemental grant levels, and maximum grant amounts for recipients:

(a) Projected and actual revenue to the local toxics control account, and other funding sources cited in WAC 173-312-010(2), as determined by the department.

(b) The number of people served by a local government.

(2) Grants that may be awarded to eligible cities pursuant to WAC 173-312-040 may not exceed a city's proportionate share, based on population, of a county's base funding level as defined in subsection (3)(a) of this section, unless the department, the county, the health department/district and the grant-eligible entities as defined in WAC 173-312-040 agree otherwise.

(3) Projected revenues to the local toxics control account that are available each biennium for coordinated prevention grant purposes shall be divided into two portions. After administrative costs have been deducted, allocations will be calculated as follows:

(a) The base funding level shall be calculated for each county by means of a formula which shall consist of two elements:

(i) A fixed amount for each county, regardless of size; and

(ii) A per capita amount based on county population size as determined by the United States census data or by the official estimates of the state office of financial management.

(b) The smaller portion, as well as unused funds in (a) of this subsection, shall become supplemental funds and shall be used for the following purposes:

(i) Financial incentives to local governments for administrative centralization and efficiency;

(ii) Remedial action grants issued pursuant to chapter 173-322 WAC, if the need exceeds administrative allocations;

(iii) Landfill closure projects meeting the requirements of WAC 173-312-050 (1)(e)(i);

(iv) Reserve funds for grants to deal with unanticipated or immediate threats to human health and the environment; and

(v) Supplemental grants, to be awarded based on the criteria set forth in WAC 173-312-070(2).

(4) Applicants must meet the requirements of this chapter to the satisfaction of the department in order to secure grant awards.

[Statutory Authority: RCW 43.21A.080. 91-11-090 (Order 90-65), § 173-312-080, filed 5/21/91, effective 6/21/91.]

WAC 173-312-090 State assistance share and local cash match. (1) Costs eligible under WAC 173-312-050 will be considered for grant funding of up to sixty percent. At least forty percent of eligible costs must be provided as local cash match. Counties which submit unified applications as defined in WAC 173-312-060 (4)(a) either will be considered for grant funding of up to sixty-five percent, provided that at least thirty-five percent of eligible costs is provided as local cash match, or will be eligible for a grant amount level ten percent greater than the base funding level.

(2) Counties, and grant-eligible jurisdictions within such counties, that are determined to be economically disadvantaged will be eligible for an increased state share and a reduced local cash match. For projects proposed by such jurisdictions, costs eligible under WAC 173-312-050 will be considered for grant funding of up to seventy-five percent. At least twenty-five percent of eligible costs must be provided as local cash match.

Economically disadvantaged counties that submit unified grant applications as defined in WAC 173-312-060 (4)(a) will be eligible for a grant amount ten percent greater than the base funding level.

(3) A county is considered economically disadvantaged if it meets both of the following criteria:

(a) Per capita income, as measured by the latest official estimate of the state office of financial management, is in the lower twenty counties in the state; and

(b) Economic distress exists as defined by chapter 43.165 RCW.

(4) The department will include a list of economically disadvantaged counties as defined in this section in the guidelines for coordinated prevention grants.

(5) Local cash match may be met by cash expenditures and interlocal costs. Interlocal costs are the only type of in-kind contributions that may be used for local cash match.

[Statutory Authority: RCW 43.21A.080, 91-11-090 (Order 90-65), § 173-312-090, filed 5/21/91, effective 6/21/91.]

WAC 173-312-100 Grant administration. (1) The department shall prepare guidelines to facilitate compliance with and interpretation of this rule.

(2) The coordinated prevention grants shall operate on a biennial funding cycle. Such cycle will consist of:

(a) A base grant phase, during which eligible applicant governments apply for grant funds up to the base funding level set forth in WAC 173-312-080 (3)(a) plus the selected administrative incentives; and

(b) A supplemental grant phase, during which grant recipients request grant amendments including supplemental funding requests for additional funds to assist ongoing or new projects. The supplemental grant phase will be contingent on the availability of funds to the local toxics control account.

(3) The department will obligate coordinated prevention grant funds to a recipient for a maximum period of two years. If the recipient has not accomplished the scope of work in the time period set forth in the agreement, the recipient must use a portion of its next biennial base funding level to complete the project(s).

(4) No costs incurred prior to the effective date of a grant agreement are eligible unless specific provision is made in the grant agreement for such costs.

[Statutory Authority: RCW 43.21A.080, 91-11-090 (Order 90-65), § 173-312-100, filed 5/21/91, effective 6/21/91.]

Chapter 173-331 WAC VEHICLE BATTERY RECYCLING

WAC

173-331-010	Authority and purpose.
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173-331-200	Posting of retail notices.
173-331-210	Optional exemption to the core charge.
173-331-220	Condition of used batteries.
173-331-300	Conditions for suspending the acceptance requirements.
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173-331-500	Handling of used vehicle batteries.
173-331-600	Severability.

WAC 173-331-010 Authority and purpose. The department of ecology has been authorized under RCW 70.95.670 to implement and enforce a vehicle battery recycling program. The purpose of this chapter is to establish procedures for implementation and enforcement of RCW 70.95.610 through 70.95.660, which is designed to accomplish the recycling of used vehicle batteries through a system of exchanging batteries at the point of sale.

[Statutory Authority: RCW 70.95.670, 91-05-020 (Order 90-36), § 173-331-010, filed 2/11/91, effective 3/14/91.]

[1991 WAC Supp—page 492]

WAC 173-331-100 Definitions. The following words, terms, and phrases shall, for the purposes of this chapter, have the meanings given below:

(1) The terms wholesale and retail shall have the same meanings provided in Title 82 RCW, Excise taxes. For example, wholesale refers to the sale of vehicle batteries to retail establishments, and retail refers to sale of vehicle batteries that require payment of the retail sales tax.

(2) Authorization means the license issued by the department of licensing and approved by the department of ecology as authorized by RCW 70.95.610.

(3) Business location means the premises where business is conducted.

(4) Core charge means an added charge applied during a retail sale to be refunded to the purchaser when a used battery of equivalent size is offered in exchange.

(5) Department means the department of ecology.

(6) Disposal means to deposit, dump, abandon, or spill any vehicle battery into or on any land, water, solid waste landfill, or solid waste incinerator.

(7) Equivalent size means weighing fifty to one hundred fifty percent of the vehicle battery purchased.

(8) New vehicle battery means any vehicle battery intended for use as an electrical energy storage device.

(9) Original battery installation means any new vehicle or device that requires a vehicle battery to be connected or installed before use is possible.

(10) Replacement vehicle battery means any vehicle battery sold at retail (a) that is not sale of an original battery installation, or (b) without verifiable proof that the buyer needs the battery for an original battery installation.

(11) Secondary lead smelter means any facility licensed by a state or federal government to reclaim lead from vehicle batteries.

(12) Unified business identifier service location means:

(a) The field offices of the departments of revenue and labor and industries.

(b) The tax offices of employment security.

(c) The Olympia office of the secretary of state.

(d) The business license service office of the department of licensing.

(13) Used vehicle battery means any vehicle battery intended for reclamation, separate from a vehicle or other installation.

(14) Vehicle battery means any battery used or capable of use, without modification, in any vehicle, truck, mobile home, recreational vehicle, boat, airplane, or utility vehicle, having a core of elemental lead, with the capability to produce six or more volts. For purposes of application of the core charge only, a vehicle battery shall be a replacement battery and the core charge shall not apply to original battery installations.

[Statutory Authority: RCW 70.95.670, 91-05-020 (Order 90-36), § 173-331-100, filed 2/11/91, effective 3/14/91.]

WAC 173-331-200 Posting of retail notices. (1) This section refers to the notices required by RCW 70.95.630(2).

(2) All required notices must be posted in the main vehicle battery display area or other area clearly visible to battery purchasers. Notices must be posted no lower than four feet and no higher than seven feet, level to the floor. Notices must be maintained free of any viewing obstructions.

Note: Notices are available by calling 1-800-RECYCLE.

[Statutory Authority: RCW 70.95.670. 91-05-020 (Order 90-36), § 173-331-200, filed 2/11/91, effective 3/14/91.]

WAC 173-331-210 Optional exemption to the core charge. A retailer is not required to apply a core charge to a battery sale when the buyer submits verifiable proof that the battery is needed for an original battery installation. Verifiable proof shall consist of a voucher issued by the seller of the vehicle or device containing the following:

- (1) Title, address, and phone of the retail establishment;
- (2) Brief description of the vehicle or device sold with indication that a battery(s) was not included;
- (3) Date of issuance;
- (4) Name of the purchaser; and
- (5) Signature of the sales agent.

Vouchers shall be valid for ninety days following the date of issuance and must be surrendered to the retailer during the battery sale.

[Statutory Authority: RCW 70.95.670. 91-05-020 (Order 90-36), § 173-331-210, filed 2/11/91, effective 3/14/91.]

WAC 173-331-220 Condition of used batteries. (1) A purchaser must provide a used battery in a fully-capped, unbroken condition to qualify for waiver of the core charge. A retailer may refuse to accept a broken or uncapped battery, or may condition acceptance upon provision of a leak proof, acid resistant container, such as a plastic pail, holding the broken or uncapped battery.

(2) The department shall provide on its 1-800-RECYCLE Hotline a list of recycling outlets available for broken and uncapped batteries.

[Statutory Authority: RCW 70.95.670. 91-05-020 (Order 90-36), § 173-331-220, filed 2/11/91, effective 3/14/91.]

WAC 173-331-300 Conditions for suspending the acceptance requirements. (1) This section refers to the suspension order required by RCW 70.95.650(3).

(2) When the department deems it necessary, the department shall determine the market price paid for used lead batteries by contacting agents of the secondary smelters historically used to process used vehicle batteries originating in Washington. The department shall determine transportation costs by contacting at least three trucking firms and at least three shipping firms for estimated unit costs to transport batteries to each secondary smelter. If the lowest estimated transportation costs are higher than market price paid for all of the secondary smelters, the department will order a suspension.

(3) The department will notify retailers of any suspension by sending notice to trade organization representatives and other businesses on our vehicle battery

program mailing list. (To get on the vehicle battery mailing list call (206) 438-7541.)

[Statutory Authority: RCW 70.95.670. 91-05-020 (Order 90-36), § 173-331-300, filed 2/11/91, effective 3/14/91.]

WAC 173-331-400 Authorization of used battery collectors. (1) This section refers to RCW 70.95.610(1).

(2) Beginning May 1, 1991, any person who collects used vehicle batteries nonincidental to accepting exchanges during sale of new batteries, excluding local governments with approved local hazardous waste plans pursuant to RCW 70.105.220, must have a department approved authorization issued by the department of licensing.

(3) License fees for each business location shall be fifteen dollars annually.

(4) Application forms for a used vehicle battery collector authorization will be available at unified business identifier service locations located throughout the state.

Note: Assistance finding the nearest unified business identifier service is available by calling 1-800-562-8203.

(5) Ecology review of application for authorization as a used vehicle battery collector:

(a) Any application for authorization or reauthorization as a used vehicle battery collector is subject to review and final approval or disapproval by the department of ecology.

(b) The applicant will be notified if the department has evidence that the applicant has failed to comply with environmental regulations affecting the handling, storage, transport, reclamation, or disposal of vehicle batteries. Such failure is sufficient reason for the department to disapprove or rescind authorization as a vehicle battery collector.

(c) Notification shall be in writing and shall include a statement of the basis for the department's belief that failure to comply has occurred and an indication of the department's intentions regarding authorization.

(d) The applicant may submit to the department comments on the department's intended action and basis for that action. Any comments shall be submitted in writing to the department within fifteen days from date of receipt of the department's notice letter unless the department provides an extension.

(e) After reviewing any comments, the department shall issue a letter notifying the applicant of its decision whether to authorize the applicant as a vehicle battery collector. Such decision may be appealed to the department by written application for review within fifteen days of receipt by the applicant of the department's decision. The department shall issue a notice of its decision on the application for review within fifteen days of the receipt of such application. This notice shall be the department's final decision.

(f) Pursuant to RCW 43.21B.110 (1)(c), the department's final decision is appealable to the pollution control hearings board.

[Statutory Authority: RCW 70.95.670. 91-05-020 (Order 90-36), § 173-331-400, filed 2/11/91, effective 3/14/91.]

WAC 173-331-410 Reporting requirements. (1) Consistent with RCW 70.95.280, persons who collect used vehicle batteries in Washington state and recondition them, reclaim them, or arrange transport of the used batteries to out-of-state locations shall report annually to the department quantities of batteries collected and their destination(s).

Note: Reporting instructions and forms are available by calling 1-800-RECYCLE.

(2) Requests for confidentiality will be honored if the reporting business shows that publication of the information may affect adversely its competitive position and if the department determines that confidentiality is not detrimental to public interest.

[Statutory Authority: RCW 70.95.670. 91-05-020 (Order 90-36), § 173-331-410, filed 2/11/91, effective 3/14/91.]

WAC 173-331-500 Handling of used vehicle batteries. Nothing in this chapter shall exempt wholesalers, retailers, or used battery collectors from the sections pertaining to lead-acid battery handling in the state's dangerous waste regulations, chapter 173-303 WAC, including WAC 173-303-050 (Department of ecology cleanup authority), WAC 173-303-145 (Spills and discharges into the environment), and WAC 173-303-960 (Special powers and authorities of the department). All shall use prudent procedures of handling and storing used vehicle batteries.

[Statutory Authority: RCW 70.95.670. 91-05-020 (Order 90-36), § 173-331-500, filed 2/11/91, effective 3/14/91.]

WAC 173-331-600 Severability. If any provision of this chapter or its application to any person is held invalid, the remainder of the chapter or the application of the provision to other persons or circumstances is not affected.

Note: Copies of RCW 70.95.280 and 70.95.610 through 70.95.670, WAC 173-303-050, 173-303-145 and 173-303-960, and additional copies of this chapter, chapter 173-331 WAC, are available from the Department of Ecology, Office of Waste Reduction, Recycling, and Litter Control, Mailstop PV-11, Olympia, WA 98504-8711, (206) 438-7541, 1-800-RECYCLE, 1-800-732-9253.

[Statutory Authority: RCW 70.95.670. 91-05-020 (Order 90-36), § 173-331-600, filed 2/11/91, effective 3/14/91.]

Chapter 173-340 WAC

MODEL TOXICS CONTROL ACT--CLEANUP

WAC

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WAC 173-340-120 Overview. (1) Purpose. This section provides an overview of the cleanup process that typically will occur at a site where a release of a hazardous substance has been discovered. If there are any inconsistencies between this section and any specifically referenced sections, the referenced section shall govern.

(2) Site discovery. Site discovery includes:

(a) Release reporting. A reporting program is established to help identify potential hazardous waste sites. Owners and operators who know of or discover a release of a hazardous substance due to past activities must report the release to the department within ninety days of discovery, under WAC 173-340-300. Most current releases of hazardous substances must be reported to the department under the state's hazardous waste, underground storage tank, or water quality laws. The term "hazardous substance" includes a broad range of substances as defined by chapter 70.105D RCW.

(b) Initial investigation. Within ninety days of learning of a hazardous substance release, the department will conduct an initial investigation of the site under WAC 173-340-310. For sites that may need further remedial action, an early notice letter will be sent to the owner and operator informing them of the department's decision.

(3) Site priorities. Priorities for further remedial action are set by the following process:

(a) Site hazard assessment. Based on the results of the initial investigation, a site hazard assessment will be performed if necessary, under WAC 173-340-320. The purpose of the site hazard assessment is to gather information to confirm whether a release has occurred and to enable the department to evaluate the relative potential hazard posed by the release. If the department decides that no further action is required, it will notify the public of that decision through the site register.

(b) Hazardous sites list. The department will maintain a list of sites that require further remedial action. Sites will be listed after the completion of a site hazard assessment. Sites placed on the list will be ranked using the department's hazard ranking method. The department may remove a site from the hazardous sites list if the cleanup action at the site has achieved the cleanup standards and all remedial actions except confirmational monitoring have been completed. See WAC 173-340-330.

(c) Biennial program report. Every even-numbered year, the department will prepare a biennial program report for the legislature. The hazard ranking, along with other factors, will be used in this report to identify

the projects and expenditures recommended for appropriation. See WAC 173-340-340.

(4) Detailed site investigations and cleanup decisions. The following steps will be taken to ensure that the proper method of cleanup is chosen for the site.

(a) Remedial investigation and feasibility study. A state remedial investigation/feasibility study will be performed at ranked sites under WAC 173-340-350. The state remedial investigation/feasibility study defines the extent of the problems at the site and evaluates alternative cleanup actions.

(b) Selection of cleanup action. The department will evaluate the remedial investigation/feasibility study, establish cleanup levels and the point or points at which they must be complied with in accordance with the procedures provided for in WAC 173-340-700 through 173-340-760 and select a cleanup action that will protect human health and the environment and meet the other requirements of WAC 173-340-360. At some sites, restrictions on the use of the land and resources (institutional controls) will be required to insure continued protection of human health and the environment. See WAC 173-340-440. The cleanup action will be set forth in a draft cleanup action plan that addresses cleanup requirements for hazardous substances at the site. After public comment on the draft plan, a final cleanup action plan will be issued by the department. (See WAC 173-340-700 for additional overview discussion of these requirements.)

(5) Site cleanup. Once the appropriate cleanup action has been selected for the site, the actual cleanup will be performed.

(a) Cleanup actions. WAC 173-340-400 describes the design and construction requirements for implementing the cleanup action plan.

(b) Compliance monitoring and review. The cleanup action must include compliance monitoring under WAC 173-340-410 and in some cases periodic review under WAC 173-340-420 to ensure the long-term effectiveness of the cleanup action.

(6) Interim actions. Under certain conditions it may be appropriate to take early actions at a site prior to completing the process described in subsections (2) through (5) of this section. WAC 173-340-430 describes when it is appropriate to take these early or interim actions and the requirements for such actions.

(7) Leaking underground storage tanks. Underground storage tank (UST) owners and underground storage tank operators regulated under chapter 90.76 RCW are required to perform specific actions in addition to what other site owners and operators would do under this chapter. Such additional actions include reporting of a confirmed release within twenty-four hours, follow-up investigation, free product removal and immediate assessment of the threat to human health and the environment at the site. A written report describing the site and the actions taken must be submitted within ninety days of release confirmation. Depending on the results of these actions, additional remedial actions may be required. WAC 173-340-450 describes these and other requirements for leaking underground storage tanks.

(8) Procedures for conducting remedial actions.

(a) Remedial action agreements. The department has authority to take remedial actions or to order persons to conduct remedial actions under WAC 173-340-510 and 173-340-540. However, the department encourages agreements for investigations and cleanups in appropriate cases. These agreements can be agreed orders or consent degrees reached under the procedures of WAC 173-340-520 and 173-340-530.

(b) Independent remedial actions. Persons may decide to perform investigations and cleanups without department approval under this chapter. The department will use the appropriate requirements contained herein in its evaluation of the adequacy of any independent remedial actions performed. Nothing in this chapter prohibits persons from performing such actions before the department is ready to act at the site; however, all interim and cleanup actions must be reported to the department under WAC 173-340-300. Furthermore, independent remedial actions are done at the potentially liable person's own risk and the department may take or require additional remedial actions at these sites at any time. (See WAC 173-340-510.)

(c) Public participation. The public will receive notice and an opportunity to comment on most of the steps in the cleanup process. At many sites, a public participation plan will be prepared to provide opportunities for more extensive public involvement in the cleanup process.

These requirements are described in WAC 173-340-600.

[Statutory Authority: Chapter 70.105D RCW. 91-04-019, § 173-340-120, filed 1/28/91, effective 2/28/91; 90-08-086, § 173-340-120, filed 4/3/90, effective 5/4/90.]

WAC 173-340-200 Definitions. For the purpose of this chapter, the following definitions shall apply:

"Act" means the same as the "Model Toxics Control Act" and "chapter 70.105D RCW."

"Acute toxicity" means the ability of a hazardous substance to cause injury or death to an organism as a result of a short-term exposure to a hazardous substance.

"Agreed order" means an order issued under WAC 173-340-530.

"All practicable methods of treatment" means all technologies and/or methods currently available and demonstrated to work under similar site circumstances or through pilot studies, and applicable to the site at reasonable cost. These include "all known available and reasonable methods of treatment" (AKART) for discharges or potential discharges to waters of the state, and "best available control technologies" for releases of hazardous substances into the air resulting from cleanup actions.

"Applicable state and federal laws" means all legally applicable requirements and those requirements that the department determines, based on the criteria in WAC 173-340-710(3), are relevant and appropriate requirements.

"Area background" means the concentrations of hazardous substances that are consistently present in the environment in the vicinity of a site which are the result of human activities unrelated to releases from that site.

"Bioconcentration factor" means the ratio of the concentration of a hazardous substance in the tissue of an aquatic organism divided by the hazardous substance concentration in the ambient water in which the organism resides.

"Carcinogen" means any substance or agent that produces or tends to produce cancer in humans. For implementation of this chapter, the term carcinogen will apply to substances on the United States Environmental Protection Agency lists of A (known human) and B (probable human) carcinogens, and any substance which causes a significant increased incidence of benign or malignant tumors in a single, well conducted animal bioassay, consistent with the weight of evidence approach specified in the United States Environmental Protection Agency's Guidelines for Carcinogen Risk Assessment as set forth in 51 FR 33992 et seq. as presently published or as subsequently amended or republished.

"Carcinogenic potency factor" or "CPF" means the upper 95th percentile confidence limit of the slope of the dose-response curve and is expressed in units of (mg/kg-day)⁻¹. When derived from human epidemiological data, the carcinogenic potency factor may be a maximum likelihood estimate.

"Chronic reference dose" means an estimate (with an uncertainty spanning an order of magnitude or more) of a daily exposure level for the human population, including sensitive subpopulations, that is likely to be without an appreciable risk of adverse effects during a lifetime.

"Chronic toxicity" means the ability of a hazardous substance to cause injury or death to an organism resulting from repeated or constant exposure to the hazardous substance over an extended period of time.

"Cleanup" means the implementation of a cleanup action or interim action.

"Cleanup action" means any remedial action, except interim actions, taken at a site to eliminate, render less toxic, stabilize, contain, immobilize, isolate, treat, destroy, or remove a hazardous substance that complies with WAC 173-340-360.

"Cleanup action plan" means the document prepared by the department under WAC 173-340-360 which selects the cleanup action and specifies cleanup standards and other requirements for the cleanup action.

"Cleanup level" means the concentration of a hazardous substance in soil, water, air, or sediment that is determined to be protective of human health and the environment under specified exposure conditions.

"Cleanup process" means the process for identifying, investigating, and cleaning up hazardous waste sites under chapter 70.105D RCW.

"Cleanup standards" means the standards promulgated under RCW 70.105D.030 (2)(d). Establishing cleanup standards requires specification of the following:

Hazardous substance concentrations that protect human health and the environment ("cleanup levels");

The location on the site where those cleanup levels must be attained ("points of compliance"); and

Additional regulatory requirements that apply to a cleanup action because of the type of action and/or the location of the site. These requirements are specified in applicable state and federal laws and are generally established following the selection of a specific cleanup action.

"Closure site assessment" means a site assessment required for closure of an underground storage tank pursuant to rules adopted under chapter 90.76 RCW.

"Compliance monitoring" means a remedial action that consists of monitoring as described in WAC 173-340-410.

"Containment" means a container, vessel, barrier, or structure, whether natural or constructed, which confines a hazardous substance within a defined boundary and prevents or minimizes its release into the environment.

"Contaminant" means any hazardous substance that does not occur naturally or occurs at greater than natural background levels.

"Curie" means the measure of radioactivity defined as that quantity of radioactive material which decays at the rate of 3.70×10^{10} transformations per second. This decay rate is nearly equivalent to that exhibited by 1 gram of radium in equilibrium with its disintegration products.

"Day" means calendar day; however, any document due on the weekend or a holiday may be submitted on the first working day after the weekend or holiday.

"Decree" means consent decree under WAC 173-340-520. "Consent decree" is synonymous with decree.

"Department" means the department of ecology.

"Developmental reference dose" means an estimate (with an uncertainty of an order of magnitude or more) of an exposure level for the human population, including sensitive subgroups, that is likely to be without an appreciable risk of developmental effects.

"Direct contact" means exposure to hazardous substances through ingestion or dermal contact.

"Director" means the director of ecology or the director's designee.

"Environment" means any plant, animal, natural resource, surface water (including underlying sediments), ground water, drinking water supply, land surface (including tidelands and shorelands) or subsurface strata, or ambient air within the state of Washington or under the jurisdiction of the state of Washington.

"Exposure" means subjection of an organism to the action, influence, or effect of a hazardous substance (chemical agent) or physical agent. Exposure is quantified as the amount of the agent available at the exchange boundaries (e.g., skin, lungs, gut) and available for absorption.

"Exposure parameters" means those parameters used to derive an estimate of the exposure to a hazardous substance.

"Exposure pathway" means the path a hazardous substance takes or could take from a source to an exposed organism. An exposure pathway describes the

mechanism by which an individual or population is exposed or has the potential to be exposed to hazardous substances at or originating from a site. Each exposure pathway includes an actual or potential source or release from a source, an exposure point, and an exposure route. If the exposure point differs from the source of the hazardous substance, the exposure pathway also includes a transport/exposure medium.

"Facility" means any building, structure, installation, equipment, pipe or pipeline (including any pipe into a sewer or publicly owned treatment works), well, pit, pond, lagoon, impoundment, ditch, landfill, storage container, motor vehicle, rolling stock, vessel, or aircraft; or any site or area where a hazardous substance, other than a consumer product in consumer use, has been deposited, stored, disposed of, or placed, or otherwise come to be located.

"Federal cleanup law" means the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended by the Superfund Amendments and Reauthorization Act of 1986, 42 U.S.C. 9601 et seq., as presently promulgated or as subsequently amended or repromulgated.

"Fish diet fraction" means the percentage of the total fish or shellfish in an individual's diet that is obtained or has the potential to be obtained from the site.

"Food crop" means any domestic plant which is produced for the purpose of, or may be used in whole or in part for, consumption by people or livestock. This shall include nursery, root, or seedstock to be used for the production of food crops.

"Free product" means a hazardous substance that is present as a nonaqueous phase liquid (that is, liquid not dissolved in water).

"Ground water" means water in a saturated zone or stratum beneath the surface of land or below a surface water.

"Hazard index" means the sum of two or more hazard quotients for multiple hazardous substances and/or multiple exposure pathways.

"Hazardous sites list" means the list of hazardous waste sites maintained under WAC 173-340-330.

"Hazardous substance" means any dangerous or extremely hazardous waste as defined in RCW 70.105.010 (5) and (6), or any dangerous or extremely dangerous waste as designated by rule under chapter 70.105 RCW; any hazardous substance as defined in RCW 70.105.010(14) or any hazardous substance as defined by rule under chapter 70.105 RCW; any substance that, on the effective date of this section, is a hazardous substance under section 101(14) of the federal cleanup law, 42 U.S.C., Sec. 9601(14); petroleum or petroleum products; and any substance or category of substances, including solid waste decomposition products, determined by the director by rule to present a threat to human health or the environment if released into the environment.

The term hazardous substance does not include any of the following when contained in an underground storage tank from which there is not a release: Crude oil or any

fraction thereof or petroleum, if the tank is in compliance with all applicable federal, state, and local law.

"Hazardous waste site" means any facility where there has been confirmation of a release or threatened release of a hazardous substance that requires remedial action.

"Hazard quotient" or "HQ" means the ratio of the dose of a single hazardous substance over a specified time period to a reference dose for that hazardous substance derived for a similar exposure period.

"Highest beneficial use" means the beneficial use of a resource generally requiring the highest quality in the resource. For example, for many hazardous substances, providing protection for the beneficial use of drinking water will generally also provide protection for a great variety of other existing and future beneficial uses of ground water.

"Independent remedial actions" means remedial actions conducted without department oversight or approval and not under an order or decree.

"Indicator hazardous substances" means the subset of hazardous substances present at a site selected under WAC 173-340-708 for monitoring and analysis during any phase of remedial action for the purpose of characterizing the site or establishing cleanup requirements for that site.

"Inhalation correction factor" means a multiplier that is used to adjust exposure estimates based on ingestion of drinking water to take into account exposure to hazardous substances which are volatilized and inhaled during use of the water.

"Initial investigation" means a remedial action that consists of an investigation under WAC 173-340-310 to determine that a release or threatened release may have occurred that warrants further action under this chapter.

"Institutional control" means a measure undertaken to limit or prohibit activities that may interfere with the integrity of a cleanup action or result in exposure to hazardous substances at the site.

"Integrated risk information system" or "IRIS" means a data base developed by the United States Environmental Protection Agency which provides a summary of information on hazard identification and dose-response assessment for specific hazardous substances.

"Interim action" means a remedial action conducted under WAC 173-340-430 that partially addresses the cleanup of a site.

"Interspecies scaling factor" means the conversion factor used to take into account differences between animals and humans.

"Legally applicable requirements" means those cleanup standards, standards of control, and other human health and environmental protection requirements, criteria, or limitations promulgated under state or federal law that specifically address a hazardous substance, cleanup action, location, or other circumstances at the site.

"Lowest observed adverse effect level" or "LOAEL" means the lowest concentration of a hazardous substance at which there is a statistically or biologically significant

increase in the frequency or severity of an adverse effect between a population and a control group.

"Mail" means delivery through the United States Postal Service or an equivalent method of delivery or transmittal, including private mail carriers, or personal delivery.

"Maximum contaminant level" or "MCL" means the maximum concentration of a contaminant established by either the Washington state board of health or the United States Environmental Protection Agency under the Federal Safe Drinking Water Act (42 U.S.C. 300f et seq.) and published in chapter 248-54 WAC or 40 C.F.R. 141 as presently promulgated or subsequently amended or repromulgated.

"Maximum contaminant level goal" or "MCLG" means the maximum concentration of a contaminant established by either the Washington state board of health or the United States Environmental Protection Agency under the Federal Safe Drinking Water Act (42 U.S.C. 300f et seq.) and published in chapter 248-54 WAC or 40 C.F.R. 141 as presently promulgated or subsequently amended or repromulgated, for which no known or anticipated adverse effects on human health occur, including an adequate margin of safety.

"Method detection limit" or "MDL" means the minimum concentration of a compound that can be measured and reported with 99% confidence that the value is greater than zero.

"Millirem" or "mrem" means the measure of the dose of any radiation to body tissue in terms of its estimated biological effect relative to a dose received from an exposure to one roentgen (R) of x-rays. One millirem equals 0.001 rem.

"Mixed funding" means any funding provided to potentially liable persons from the state toxics control account under WAC 173-340-560.

"Model Toxics Control Act" or "act" means the act approved by the voters at the November 1988 general election, also known as Initiative 97 (chapter 70.105D RCW).

"Natural background" means the concentration of hazardous substance consistently present in the environment which has not been influenced by localized human activities. For example, several metals naturally occur in the bedrock and soils of Washington state due solely to the geologic processes that formed these materials and the concentration of these metals would be considered natural background. Also, low concentrations of some particularly persistent organic compounds such as polychlorinated biphenyls (PCBs) can be found in surficial soils and sediment throughout much of the state due to global use of these hazardous substances. These low concentrations would be considered natural background. Similarly, concentrations of various radionuclides which are present at low concentrations throughout the state due to global distribution of fallout from bomb testing and nuclear accidents would be considered natural background.

"Natural person" means any unincorporated individual or group of individuals. The term "individual" is synonymous with "natural person."

"No observed adverse effect level" or "NOAEL" means the exposure level at which there are no statistically or biologically significant increases in frequency or severity of adverse effects between the exposed population and its appropriate control; some effects may be produced at this level, but they are not considered to be adverse, nor precursors to specific adverse effects.

"Null hypothesis" means an assumption about hazardous substance concentrations at a site when evaluating compliance with cleanup levels established under this chapter. The null hypothesis is that the site is contaminated at concentrations which exceed cleanup levels. This shall not apply to cleanup levels based on background concentrations.

"Order" means an enforcement order issued under WAC 173-340-540 or an agreed order issued under WAC 173-340-530.

"Owner or operator" means any person with any ownership interest in the facility or who exercises any control over the facility; or in the case of an abandoned facility, any person who had owned, or operated, or exercised control over the facility any time before its abandonment. The term does not include:

An agency of the state or unit of local government which acquired ownership or control involuntarily through bankruptcy, tax delinquency, abandonment, or circumstances in which the government involuntarily acquires title. This exclusion does not apply to an agency of the state or unit of local government which has caused or contributed to the release or threatened release of a hazardous substance from the facility; or

A person who, without participating in the management of a facility, holds indicia of ownership primarily to protect the person's security interest in the facility.

"PAHs (carcinogenic)" means those PAHs substances identified as A (known human) or B (probable human) carcinogens by the United States Environmental Protection Agency. These include benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, chrysene, dibenzo(a,h)anthracene, and indeno(1,2,3-cd)pyrene.

"Permanent solution" means a cleanup action in which cleanup standards of WAC 173-340-700 through 173-340-760 can be met without further action being required at the site being cleaned up or any other site involved with the cleanup action, other than the approved disposal of any residue from the treatment of hazardous substances.

"Person" means an individual, firm, corporation, association, partnership, consortium, joint venture, commercial entity, state government agency, unit of local government, federal government agency, or Indian tribe.

"Picocurie" or "pCi" means 10^{-12} curie.

"Point of compliance" means the point or points where cleanup levels established in accordance with WAC 173-340-720 through 173-340-760 shall be attained.

"Polychlorinated biphenyls" or "PCB mixtures" means those aromatic compounds containing two benzene nuclei with two or more substituted chlorine atoms. For the purposes of this chapter, PCB includes those

congeners which are identified using the appropriate analytical methods as specified in WAC 173-340-830.

"Polycyclic aromatic hydrocarbons" or "PAH" means those hydrocarbon molecules composed of two or more fused benzene rings. For the purpose of this chapter, PAH includes those compounds which are identified and quantified using the appropriate analytical methods as specified in WAC 173-340-830. The specific compounds generally included are acenaphthene, acenaphthylene, fluorene, naphthalene, anthracene, fluoranthene, phenanthrene, benzo[a]anthracene, benzo[b]fluoranthene, benzo[k]fluoranthene, pyrene, chrysene, benzo[a]pyrene, dibenzo[a,h]anthracene, indeno[1,2,3-cd]pyrene, and benzo[ghi]perylene.

"Potentially liable person" means any person whom the department finds, based on credible evidence, to be liable under RCW 70.105D.040.

"Practicable" means (except when used in the phrase "permanent to the maximum extent practicable" which is defined in WAC 173-340-360(5)) capable of being designed, constructed and implemented in a reliable and effective manner including consideration of cost. When considering cost under this analysis, an alternative shall not be considered practicable if the incremental cost of the alternative is substantial and disproportionate to the incremental degree of protection provided by the alternative over other lower cost alternatives.

"Practical quantitation limit" or "PQL" means the lowest concentration that can be reliably measured within specified limits of precision, accuracy, representativeness, completeness, and comparability during routine laboratory operating conditions, using department approved methods.

"Public notice" means, at a minimum, adequate notice mailed to all persons who have made a timely request of the department and to persons residing in the potentially affected vicinity of the proposed action; mailed to appropriate news media; published in the newspaper of largest circulation in the city or county of the proposed action; and opportunity for interested persons to comment.

"Public participation plan" means a plan prepared under WAC 173-340-600 to encourage coordinated and effective public involvement tailored to the public's needs at a particular site.

"Rad" means that quantity of ionizing radiation that results in the absorption of 100 ergs of energy per gram of irradiated material, regardless of the source of radiation.

"Radionuclide" means a type of atom which spontaneously undergoes radioactive decay. Radionuclides are hazardous substances under the act.

"Recovery by-products" means any hazardous substance, water, sludge or other materials collected in the free product removal process in response to a release from an underground storage tank.

"Reasonable maximum exposure" means the highest exposure that can be reasonably expected to occur for a human or other living organisms at a site under current and potential future site use.

"Reference dose" or "RFD" means a benchmark dose, derived from the NOAEL or LOAEL for a hazardous substance by consistent application of uncertainty factors used to estimate acceptable daily intake doses and an additional modifying factor, which is based on professional judgment when considering all available data about a substance, expressed in units of milligrams per kilogram body weight per day. This includes chronic reference doses, subchronic reference doses, and developmental reference doses.

"Regional office" means one of the regional offices of the department of ecology.

"Release" means any intentional or unintentional entry of any hazardous substance into the environment, including but not limited to the abandonment or disposal of containers of hazardous substances.

"Relevant and appropriate requirements" means those cleanup standards, standards of control, and other human health and environmental requirements, criteria, or limitations established under state and federal law that, while not legally applicable to the hazardous substance, cleanup action, location, or other circumstance at a site, the department determines address problems or situations sufficiently similar to those encountered at the site that their use is well suited to the particular site. The criteria specified in WAC 173-340-710(3) shall be used to determine if a requirement is relevant and appropriate.

"Rem" means the unit of radiation dose equivalent that is the dosage in rads multiplied by a factor representing the different biological effects of various types of radiation.

"Remedy" or "remedial action" means any action or expenditure consistent with the purposes of chapter 70.105D RCW to identify, eliminate, or minimize any threat posed by hazardous substances to human health or the environment including any investigative and monitoring activities with respect to any release or threatened release of a hazardous substance and any health assessments or health effects studies conducted in order to determine the risk or potential risk to human health.

"Restoration time frame" means the period of time needed to achieve the required cleanup levels at the points of compliance established for the site.

"Risk" means the probability that a hazardous substance, when released into the environment, will cause an adverse effect in exposed humans or other living organisms.

"Routine cleanup action" means a remedial action that consists of a cleanup action meeting the requirements in WAC 173-340-130(7).

"Safety and health plan" means a plan prepared under WAC 173-340-810.

"Sample mean" means the arithmetic mean or the average of a set of measurements. The arithmetic mean is defined as the sum of all measurements divided by the number of measurements.

"Sampling and analysis plan" means a plan prepared under WAC 173-340-820.

"Saturated zone" means the area below the water table in which all interstices are filled with water.

"Science advisory board" means the advisory board established by the department under RCW 70.105D.030(4).

"Secondary maximum contaminant level" means the maximum concentration of a secondary contaminant in water established by the United States Environmental Protection Agency under the Federal Safe Drinking Water Act (42 U.S.C. 300f et seq.) and published in 40 C.F.R. 143 as presently promulgated or as subsequently amended or repromulgated.

"Sensitive environment" means an area of particular environmental value, where a release could pose a greater threat than in other areas including: Wetlands; critical habitat for endangered or threatened species; national or state wildlife refuge; critical habitat, breeding or feeding area for fish or shellfish; wild or scenic river; rookery; riparian area; big game winter range.

"Site" means the same as facility.

"Site characterization report" means a written report describing the site and nature of a release from an underground storage tank, as described in WAC 173-340-450 (4)(b).

"Site check" means the investigation conducted pursuant to rules adopted under chapter 90.76 RCW in order to confirm a release from an underground storage tank.

"Site hazard assessment" means a remedial action that consists of an investigation performed under WAC 173-340-320.

"Site register" means the public information document described in WAC 173-340-600.

"Soil" means a mixture of organic and inorganic solids, air, water, and biota which exists on the earth's surface above bedrock, including materials of anthropogenic sources such as slag, sludge, etc.

"State remedial investigation/feasibility study" means a remedial action that consists of activities performed under WAC 173-340-350 to collect, develop, and evaluate sufficient information regarding a site to enable the selection of a cleanup plan under WAC 173-340-360.

"Status report" means a written or verbal report on the status of the interim actions taken in response to a release from an underground storage tank, as described in WAC 173-340-450 (4)(b).

"Subchronic reference dose" means an estimate (with an uncertainty of an order of magnitude or more) of a daily exposure level for the human population, including sensitive subgroups, that is likely to be without appreciable risk of adverse effects during a portion of a lifetime.

"Surface water" means lakes, rivers, ponds, streams, inland waters, salt waters, and all other surface waters and water courses within the state of Washington or under the jurisdiction of the state of Washington.

"Technically possible" means capable of being designed, constructed and implemented in a reliable and effective manner, regardless of cost.

"Total excess cancer risk" means the upper bound on the estimated excess cancer risk associated with exposure to multiple hazardous substances and multiple exposure pathways.

"Total petroleum hydrocarbons" or "TPH" means any fraction of crude oil that is contained in plant condensate, crankcase motor oil, gasoline, aviation fuels, kerosene, diesel motor fuel, benzol, fuel oil, and other products derived from the refining of crude oil. For the purposes of this chapter, TPH will generally mean those fractions of the above products that are quantified by EPA Methods 8015 or 418.1 as appropriate or other test methods approved by the department.

"Type I error" means the error made when it is concluded that an area of a site is below cleanup levels when it actually exceeds cleanup levels. This is the rejection of a true null hypothesis.

"Underground storage tank" or "UST" means an underground storage tank and connected underground piping as defined in the rules adopted under chapter 90.76 RCW.

"Underground storage tank operator" means any underground storage tank operator as defined in the rules adopted under chapter 90.76 RCW.

"Underground storage tank owner" means any underground storage tank owner as defined in the rules adopted under chapter 90.76 RCW.

"Underground storage tank release" means a confirmed release from an underground storage tank pursuant to the rules adopted under chapter 90.76 RCW.

"Unrestricted site use conditions" means restrictions on the use of the site or natural resources affected by releases of hazardous substances from the site are not required to ensure continued protection of human health and the environment.

"Upper bound on the estimated excess cancer risk of one in one hundred thousand" means the upper 95th percent confidence limit on the estimated risk of one additional cancer above the background cancer rate per one hundred thousand individuals.

"Upper bound on the estimated excess cancer risk of one in one million" means the upper 95th percent confidence limit on the estimated risk of one additional cancer above the background cancer rate per one million individuals.

"Volatile organic compound" means those carbon-based compounds listed in EPA methods 601, 602, 603, 624, 8010, 8015, 8020, 8030, 8240, 502.1, 502.2, 503.1, 524.1, 524.2, and those with similar vapor pressures or boiling points.

"Wastewater facility" means all structures and equipment required to collect, transport, treat, reclaim, or dispose of domestic, industrial, or combined domestic/industrial wastewaters.

"Wetlands" means lands 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 the purposes of this classification, wetlands must have one or more of the following attributes at least periodically, the land supports predominantly hydrophytes; the substrate is predominately undrained hydric soil; and the substrate is nonsoil and saturated with water or covered by shallow water at some time during the growing season each year.

[Statutory Authority: Chapter 70.105D RCW. 91-04-019, § 173-340-200, filed 1/28/91, effective 2/28/91; 90-08-086, § 173-340-200, filed 4/3/90, effective 5/4/90.]

Reviser's note: The brackets and enclosed material in the text of the above section occurred in the copy filed by the agency.

WAC 173-340-210 Usage. For the purposes of this chapter, the following shall apply:

(1) Unless the context clearly requires otherwise the use of the singular shall include the plural and conversely.

(2) The terms "applicable," "appropriate," "relevant," "unless otherwise directed by the department" and similar terms implying discretion mean as determined by the department, with the burden of proof on other persons to demonstrate the requirements are or are not necessary.

(3) "Approved" means for department conducted or ordered remedial actions, or for potentially liable person conducted cleanups agreed to by the department in an agreed order or decree governing remedial actions at the site.

(4) "Conduct" means to perform or undertake whether directly or through an agent or contractor, unless this chapter expressly provides otherwise.

(5) "Include" means included but not limited to.

(6) "May" means the provision is optional and permissive, and does not impose a requirement.

(7) "Shall" means the provision is mandatory.

(8) "Threat" means threat or potential threat.

(9) "Under" means pursuant to, subject to, required by, established by, in accordance with, and similar expressions of legislative or administrative authorization or direction.

[Statutory Authority: Chapter 70.105D RCW. 91-04-019, § 173-340-210, filed 1/28/91, effective 2/28/91; 90-08-086, § 173-340-210, filed 4/3/90, effective 5/4/90.]

WAC 173-340-300 Site discovery and reporting. (1) **Purpose.** As part of a program to identify hazardous waste sites, this section sets forth the requirements for reporting a release of a hazardous substance due to past activities, whether discovered before or after the effective date of this regulation. It also sets forth the requirements for reporting independent cleanup actions. The department may take any other actions it deems appropriate to identify potential hazardous waste sites consistent with chapter 70.105D RCW.

(2) **Release report.** Any owner or operator who has information that a hazardous substance has been released to the environment at the owner or operator's facility and may be a threat to human health or the environment shall report such information to the department by June 1, 1990, or for discovery of releases after this date, within ninety days of discovery. Releases from underground storage tanks as described in the rules adopted under chapter 90.76 RCW must be reported within twenty-four hours of release confirmation, in accordance with WAC 173-340-450. To the extent known, the report shall include: The identification and location of the hazardous substance, circumstances of the release and the discovery, and any remedial actions planned, completed, or underway. All other persons are

encouraged to report such information to the department.

(3) **Exemptions.** The following releases are exempt from these notification requirements:

(a) Application of pesticides and fertilizers for their intended purposes and according to label instructions;

(b) Lawful and nonnegligent use of hazardous substances by a natural person for personal or domestic purposes;

(c) A release in accordance with a permit that authorizes the release;

(d) A release previously reported to the department in fulfillment of a reporting requirement in this chapter or in another law or regulation;

(e) A release previously reported to the United States Environmental Protection Agency under CERCLA, Section 103(c) (42 9603(c));

(f) A release to the air;

(g) Releases discovered in public water systems regulated by the department of health; or

(h) A release to a permitted wastewater facility.

An exemption from these notification requirements does not imply a release from liability in future actions by the department.

(4) **Report of independent actions.**

(a) **Report.** Any person who conducts an independent interim action or cleanup action shall submit a written report to the department within ninety days of the completion of the action. For the purposes of this section, the department will consider an interim action or cleanup action complete if no remedial action other than compliance monitoring has occurred at the site for ninety days. This is not intended to preclude earlier reporting of such actions. See WAC 173-340-450 for additional requirements for reporting independent interim actions for releases from underground storage tanks.

(b) **Contents.** The report shall include the information in subsection (2) of this section if not already reported, and results of all site investigations, cleanup actions and compliance monitoring planned or underway. The department may require additional reports on the work performed.

(c) **Combined reports.** If the independent interim action or cleanup action is completed within ninety days of discovery, a single written report may be submitted on both the release and the action taken. The reports shall contain the information specified in subsections (2) and (4) of this section and shall be submitted within ninety days of completion of the interim action or cleanup action.

(d) **Notification.** The department shall publish a notice of all reports on independent interim actions and cleanup actions received under this section in the site register.

(5) **Department response.** Within ninety days of receipt of information under this section, the department shall respond in accordance with WAC 173-340-310. Receipt of information regarding an independent interim action or cleanup action under subsection (3) or (4) of this section shall not obligate the department to take any action beyond that prescribed in WAC 173-340-310

and subsection (4)(d) of this section. Neither submission of information on independent interim action and cleanup actions nor any response by the department shall release the person submitting the report or any other person from liability. The department reserves all rights to pursue any subsequent action it deems appropriate.

(6) Other obligations. Nothing in this section shall eliminate any obligations to comply with reporting requirements that may exist in a permit or under other laws.

[Statutory Authority: Chapter 70.105D RCW, 91-04-019, § 173-340-300, filed 1/28/91, effective 2/28/91; 90-08-086, § 173-340-300, filed 4/3/90, effective 5/4/90.]

WAC 173-340-350 State remedial investigation and feasibility study. (1) Purpose. The purpose of a state remedial investigation/feasibility study is to collect, develop, and evaluate sufficient information regarding a site to enable the selection of a cleanup action under WAC 173-340-360.

(2) Timing. Unless otherwise directed by the department, a state remedial investigation/feasibility study shall be completed before selecting a cleanup action under WAC 173-340-360, except for an emergency or interim action.

(3) Administrative options. A state remedial investigation/feasibility study may be conducted under any of the procedures described in WAC 173-340-510.

(4) Public participation will be accomplished in a manner consistent with WAC 173-340-600.

(5) Scope. The scope of a state remedial investigation/feasibility study will depend on the informational needs of the specific facility. This requires that the process remain flexible, with the scope of the state remedial investigation/feasibility study varying from site to site to avoid the collection of unnecessary information so that the cleanup can proceed in a timely manner. However, in all cases sufficient information must be collected, developed, and evaluated to enable the selection of a cleanup action under WAC 173-340-360. In addition, for facilities on the federal national priorities list, the state remedial investigation/feasibility study shall comply with federal requirements.

(6) Contents. A state remedial investigation/feasibility study shall include the following information as appropriate:

(a) General facility information. General information, including: Project title; name, address, and phone number of project coordinator; legal description of the facility location; dimensions of the facility; present owner and operator; chronological listing of past owners and operators and operational history; and other pertinent information.

(b) Site conditions map. An existing site conditions map which illustrates relevant current site features such as: Property boundaries; proposed facility boundaries; surface topography; surface and subsurface structures; utility lines; well locations; and other pertinent information.

(c) Field investigations. Sufficient investigations to characterize the distribution of hazardous substances present at the site, and threat to human health and the environment. Where applicable to the site, these investigations will need to address the following:

(i) Surface water and sediments. Investigations of surface water and sediments to characterize significant hydrologic features such as: Surface drainage patterns and quantities, areas of erosion and sediment deposition, surface waters, floodplains, and actual or potential hazardous substance migration routes towards and within these features. Sufficient surface water and sediment sampling shall be performed to adequately characterize the areal and vertical distribution and concentrations of hazardous substances. Properties of surface and subsurface sediments which are likely to influence the type and rate of hazardous substance migration, or are likely to affect the ability to implement alternative cleanup actions shall be characterized.

(ii) Soils. Investigations to adequately characterize the areal and vertical distribution and concentrations of hazardous substances in the soil due to the facility. Properties of surface and subsurface soils which are likely to influence the type and rate of hazardous substance migration, or which are likely to affect the ability to implement alternative cleanup actions shall be characterized.

(iii) Geology and ground water system characteristics. Investigations of site geology and hydrogeology to adequately characterize the areal and vertical distribution and concentrations of hazardous substances in the ground water and those features which affect the fate and transport of these hazardous substances. This shall include, as appropriate, the description, physical properties and distribution of bedrock and unconsolidated materials; ground water flow rate and gradient for affected and potentially affected ground waters; ground water divides; areas of ground water recharge and discharge; location of public and private production wells; and ground water quality data.

(iv) Air. An evaluation of air quality impacts, including sampling, where appropriate, and information regarding local and regional climatological characteristics which are likely to affect the hazardous substance migration such as: Seasonal patterns of rainfall; the magnitude and frequency of significant storm events; temperature extremes; prevailing wind direction; and wind velocity.

(v) Land use. Information characterizing human populations exposed or potentially exposed to the hazardous substance released from the facility and present and proposed land uses and zoning for the site and potentially affected areas.

(vi) Natural resources and ecology. Information to determine the impact or potential impact of the hazardous substance from the facility on the natural resources and ecology of the area such as: Sensitive environment, plant and animal species, and other environmental receptors.

(vii) Hazardous substance sources. A description of and sufficient sampling to define the location, quantity,

areal and vertical extent, concentration within and sources of waste disposal areas. Where relevant, information on the physical and chemical characteristics, and the biological effects of hazardous substances shall be provided.

(viii) Regulatory classifications. Regulatory designations classifying affected air, surface water and ground water, if any.

(d) Risk assessment. A risk assessment characterizing the current and potential threats to human health and the environment that may be posed by hazardous substances. This assessment may not be required when the department determines that proposed cleanup standards are obvious and undisputed and allow an adequate margin of safety for protection of human health and the environment.

(e) Cleanup action alternatives. An evaluation of alternative cleanup actions that protect human health and the environment by eliminating, reducing, or otherwise controlling risks posed through each exposure pathway and migration route, shall be required. The number and types of alternatives to be evaluated shall take into account the characteristics and complexity of the facility. A phased approach for evaluation of alternatives may be required for certain facilities, including an initial screening of alternatives to reduce the number of potential remedies for the final detailed evaluation. The final evaluation of cleanup action alternatives that pass the initial screening shall be evaluated for compliance with the requirements in WAC 173-340-360.

(f) Work plans. A sampling and analysis plan, and a safety and health plan shall be prepared as part of state remedial investigation/feasibility study activities. These plans shall conform to the requirements specified in this chapter.

(g) Treatability studies. The department may require treatability studies as necessary to provide sufficient information to develop and evaluate cleanup action alternatives for a site.

(h) Any information needed to fulfill the applicable requirements of the State Environmental Policy Act.

(i) Other information as required by the department.

(7) In appropriate cases the department may allow departure from the requirements of subsection (6) of this section and will allow information to be incorporated by reference to avoid unnecessary duplication.

(8) Report. A report shall be prepared at the completion of the remedial investigation/feasibility study. Additionally, the department may require reports to be submitted following discrete elements of the remedial investigation/feasibility study. Reports prepared under this section and under an order or decree shall be submitted to the department for review and approval.

[Statutory Authority: Chapter 70.105D RCW. 91-04-019, § 173-340-350, filed 1/28/91, effective 2/28/91; 90-08-086, § 173-340-350, filed 4/3/90, effective 5/4/90.]

WAC 173-340-360 Selection of cleanup actions. (1) Purpose.

(a) This section describes the requirements for selecting cleanup actions. It specifies the criteria for approving cleanup actions, the order of preference for cleanup technologies, policies for permanent solutions, the application of these criteria to particular situations, and the process for making these decisions. This section is intended to be used in conjunction with the cleanup standards defined in WAC 173-340-700 through 173-340-760 and the administrative principles for the overall cleanup process (WAC 173-340-130).

(b) Because cleanup actions will often involve the use of several cleanup technologies or methods at a single site, the overall cleanup action shall meet the requirements of this section.

(2) Threshold requirements.

All cleanup actions conducted under this chapter shall protect human health and the environment; shall comply with cleanup standards (see WAC 173-340-700 through 173-340-760); shall comply with applicable state and federal laws (see WAC 173-340-710); and shall provide for compliance monitoring (see WAC 173-340-410).

(3) Other requirements. In addition, the cleanup action conducted shall:

(a) Use permanent solutions to the maximum extent practicable (see WAC 173-340-360 (4), (5), (7), and (8));

(b) Provide for a reasonable restoration time frame (see WAC 173-340-360(6)); and

(c) Consider public concerns raised during public comment on the draft cleanup action plan (see WAC 173-340-360 (10) through (13)).

(4) Cleanup technologies.

(a) Cleanup of hazardous waste sites shall be conducted using technologies which minimize the amount of untreated hazardous substances remaining at a site. Toward that end, the following technologies for addressing specific hazardous substances or pathways shall be considered in order of descending preference:

(i) Reuse or recycling;

(ii) Destruction or detoxification;

(iii) Separation or volume reduction followed by reuse, recycling, destruction, or detoxification of the residual hazardous substance;

(iv) Immobilization of hazardous substances;

(v) On-site or off-site disposal at an engineered facility designed to minimize the future release of hazardous substances and in accordance with applicable state and federal laws;

(vi) Isolation or containment with attendant engineering controls; and

(vii) Institutional controls and monitoring.

(b) A combination of technologies from more than one of the categories under (a) of this subsection may be used at a specific site. For example, the source of the hazardous substance may be recovered and recycled or destroyed, while containment is used to stop the migration of hazardous substances that have reached the ground water.

(c) Since cleanup actions will often involve a combination of technologies, cleanup action alternatives shall maximize the use of higher preference technologies.

(d) Ecology does not expect that one type of technology will be used for all sites. The adoption of the technology preferences in this subsection is designed to make it more difficult to select a cleanup action with a low preference without careful explanation of why technologies above it have not been used. As noted in subsection (9) of this section, ecology expects that lower options will be appropriate for some sites.

(5) Permanent solutions.

(a) When selecting a cleanup action, preference shall be given to permanent solutions to the maximum extent practicable.

(b) A permanent solution is one in which cleanup standards can be met without further action being required at the original site or any other site involved with the cleanup action, other than the approved disposal of any residue from preferred treatment technologies under subsection (4)(a)(i) through (iii) of this section.

(c) In general, technologies which reuse, recycle, destroy, or detoxify hazardous substances will result in permanent solutions if residual hazardous substance concentrations are below cleanup levels established under WAC 173-340-700 through 173-340-760. Containment of hazardous substances and/or institutional controls alone are not permanent solutions. Other technologies, such as immobilization of hazardous substances, may provide permanent solutions under some conditions.

(d) Ecology recognizes that permanent solutions may not be practicable for all sites. A determination that a cleanup action satisfies the requirement to use permanent solutions to the maximum extent practicable is based upon consideration of a number of factors. The following criteria shall be used to determine whether a cleanup action is "permanent to the maximum extent practicable":

(i) Overall protectiveness of human health and the environment including the degree to which existing risks are reduced, time required to reduce risk at the facility and attain cleanup standards, on-site and off-site risks resulting from implementing the alternative, the degree the cleanup action may perform to a higher level than specific standards in WAC 173-340-700 through 173-340-760, and improvement of the overall environmental quality;

(ii) Long-term effectiveness including degree of certainty that the alternative will be successful, long-term reliability, magnitude of residual risk, and effectiveness of controls required to manage treatment residues or remaining wastes;

(iii) Short-term effectiveness including protection of human health and the environment during construction and implementation of the alternative, and the degree of risk to human health and the environment prior to attainment of cleanup standards;

(iv) Permanent reduction of toxicity, mobility and volume of the hazardous substance including adequacy of the alternative in destroying the hazardous substances, reduction or elimination of hazardous substance releases and sources of releases, degree of irreversibility

of waste treatment process, and the characteristics and quantity of treatment residuals generated;

(v) Ability to be implemented including consideration of whether the alternative is technically possible, availability of necessary off-site facilities, services and materials, administrative and regulatory requirements, scheduling, size, complexity, monitoring requirements, access for construction, operations and monitoring, and integration with existing facility operations and other current or potential remedial actions;

(vi) Cleanup costs. A cleanup action shall not be considered practicable if the incremental cost of the cleanup action is substantial and disproportionate to the incremental degree of protection it would achieve over a lower preference cleanup action. When selecting from among two or more cleanup action alternatives which have an equivalent level of preference under subsection (4) of this section, preference may be given to the least cost alternative. In performing this evaluation, the top three preferences in subsection (4) of this section shall be considered equivalent unless there are overriding public concerns or technical uncertainties;

(vii) The degree to which community concerns are addressed.

(e) To ensure a bias toward permanent solutions, cleanup actions conducted under this chapter including consideration of prior actions at the site shall comply with the following requirements:

(i) The cleanup action shall prevent or minimize present and future releases and migration of hazardous substances in the environment;

(ii) The cleanup action shall provide for a net reduction in the amount of a hazardous substance being released from the source area;

(iii) The cleanup action shall not rely primarily on dilution and dispersion of the hazardous substance if active remedial measures are technically possible;

(iv) A cleanup action relying primarily on institutional controls and monitoring shall not be used where it is technically possible to implement a cleanup action alternative that utilizes a higher preference cleanup technology for all or a portion of the site; and

(v) A cleanup action involving off-site transport and disposal of hazardous substances without treatment shall not be used if a treatment technology or method exists which will attain cleanup standards and is practicable.

(6) Restoration time frame.

(a) The cleanup action selected shall provide for a reasonable restoration time frame. The factors to be considered when establishing a reasonable restoration time frame shall include:

(i) Potential risks posed by the site to human health and the environment;

(ii) Practicability of achieving a shorter restoration time frame;

(iii) Current use of the site, surrounding areas, and associated resources that are, or may be, affected by releases from the site;

(iv) Potential future use of the site, surrounding areas, and associated resources that are, or may be, affected by releases from the site;

- (v) Availability of alternative water supplies;
- (vi) Likely effectiveness and reliability of institutional controls;
- (vii) Ability to control and monitor migration of hazardous substances from the site;
- (viii) Toxicity of the hazardous substances at the site; and
- (ix) Natural processes which reduce concentrations of hazardous substances and have been documented to occur at the site or under similar site conditions.

(b) A longer period of time may be used for the restoration time frame for a site to achieve cleanup levels at the point of compliance if higher preference cleanup technologies in accordance with subsections (4) and (5) of this section are selected instead of on-site or off-site disposal, isolation, or containment options.

(c) When area background concentrations would result in recontamination of the site to levels which exceed cleanup levels, that portion of the cleanup action which addresses cleanup below area background concentrations may be delayed until the off-site sources of hazardous substances are controlled. In these cases the remedial action shall be considered an interim action until cleanup levels are attained.

(d) Where cleanup levels determined under method C in WAC 173-340-707 are below technically possible concentrations, concentrations that are technically possible to achieve shall be met within a reasonable time frame considering the factors in (a) of this subsection. In these cases the remedial action shall be considered an interim action until cleanup levels are attained.

(e) Extending the restoration time frame shall not be used as a substitute for active cleanup actions, when such actions are practicable.

(7) Ground water restoration.

(a) Ground water treatment to achieve the levels in WAC 173-340-720 throughout the ground water at and beyond the point of compliance shall be required where such treatment is practicable or where such treatment is not practicable, but deemed by the department to be in the public interest.

(b) When ground water treatment to achieve the cleanup levels at or beyond the point of compliance within an existing ground water plume is not practicable the following measures shall be taken:

(i) Treatment shall be used to reduce the levels to the maximum extent practicable;

(ii) Ground water containment, including barriers or hydraulic control through ground water pumping or both, shall be implemented to the maximum extent practicable to avoid lateral and vertical expansion of the ground water volume affected by the hazardous substance;

(iii) Source control measures shall be implemented to prevent or minimize additional releases to the ground water;

(iv) Adequate ground water monitoring to demonstrate control and containment of the hazardous substance shall be conducted;

(v) The potentially liable person shall provide an alternative water supply or treatment for persons with water supplies rendered unusable by the release; and

(vi) The practicability of achieving ground water cleanup levels by treating the ground water affected by the release shall be reevaluated during the periodic review under WAC 173-340-420.

(c) Appropriate restrictions on the use of ground water shall be placed under WAC 173-340-440 until cleanup levels established under WAC 173-340-720 are achieved.

(d) The integrity and continued operation of any treatment or containment system shall be assured in accordance with WAC 173-340-440.

(8) Containment actions.

(a) A cleanup action which relies primarily on on-site disposal, isolation, or containment of hazardous substances shall not be conducted if it is practicable to reuse, destroy, or detoxify those substances in a manner that remaining concentrations are below cleanup levels established under WAC 173-340-700 through 173-340-760.

(b) Long-term monitoring (WAC 173-340-410) and institutional controls (WAC 173-340-440) shall be required if on-site disposal, isolation, or containment is the selected cleanup action for a site or a portion of a site. Such measures shall be required until residual hazardous substance concentrations no longer exceed site cleanup levels established under WAC 173-340-700 through 173-340-760.

(c) If the proposed cleanup action involves on-site containment, the draft cleanup action plan shall specify the types, levels, and amounts of hazardous substances remaining on-site and the measures that will be utilized to prevent migration and contact with those substances.

(9) Expectations. Ecology has the following expectations for cleanup actions conducted under this chapter. The department recognizes that there may be sites where these expectations are not appropriate:

(a) Ecology expects that treatment technologies will be used wherever practicable. Use of treatment technologies should be emphasized at sites containing liquid wastes, areas contaminated with high concentrations of hazardous substances, highly mobile materials, and/or discrete areas of hazardous substances which lend themselves to treatment;

(b) To minimize the need for long-term management of contaminated materials, ecology expects that hazardous substances will be totally destroyed, detoxified, and/or removed to concentrations below cleanup levels throughout sites containing small volumes of hazardous substances;

(c) Ecology recognizes the need to use engineering controls, such as containment, for sites or portions of sites that contain large volumes of materials with relatively low levels of hazardous substances where treatment is impracticable;

(d) Ecology expects institutional controls, such as water use restrictions and deed restrictions, will be used to supplement engineering controls in order to prevent or

limit exposure to hazardous substances and protect the integrity of the cleanup action;

(e) Ecology expects that cleanup actions will return useable ground waters to their beneficial uses wherever practicable, within a reasonable time frame. When restoration of ground water to beneficial uses is not practicable, ecology expects to require measures to minimize/prevent further migration, minimize ongoing releases, prevent exposure to contaminated water, and other appropriate measures (see WAC 173-340-360(7));

(f) In order to minimize the potential for migration of hazardous substances, ecology expects that active measures will be taken to prevent precipitation and subsequent runoff from coming into contact with contaminated soils and waste materials. When such measures are impracticable, such as during active cleanup, ecology expects that site runoff will be contained and treated prior to release from the site;

(g) Ecology expects that when hazardous substances remain on-site at concentrations which exceed cleanup levels, those hazardous substances will be consolidated to the maximum extent practicable where needed to minimize the potential for direct contact and migration of hazardous substances;

(h) Ecology expects that, for facilities adjacent to a surface water body, active measures will be taken to prevent/minimize releases to surface water via surface runoff and ground water discharges. Ecology expects that dilution will not be the sole method for demonstrating compliance with cleanup standards; and

(i) Ecology expects that cleanup actions conducted under this chapter will not result in a significantly greater overall threat to human health and the environment than other alternatives.

(10) Draft cleanup action plan. The department shall issue a draft cleanup action plan for cleanup actions conducted by the department or conducted by a potentially liable person under an order or decree. The level of detail in the draft cleanup action plan shall be commensurate with the complexity of the site and proposed cleanup action.

(a) The draft cleanup action plan shall include the following:

(i) A general description of the proposed cleanup action including compliance monitoring;

(ii) A brief summary of other alternative cleanup actions evaluated in the state remedial investigation/feasibility study or comparable documents;

(iii) Site cleanup levels and points of compliance for each hazardous substance and for each media of concern;

(iv) The schedule for implementation of the cleanup action plan including, if known, restoration time frame;

(v) Required institutional controls and site use restrictions, if any, for the proposed cleanup action;

(vi) Justification for selecting a cleanup action that uses cleanup technologies that have a lower preference than higher representative cleanup technologies listed in subsection (4)(a) of this section;

(vii) Applicable state and federal laws for the proposed cleanup action, when these are known at this step

in the cleanup process (this does not preclude subsequent identification of applicable state and federal laws);

(viii) A preliminary determination by the department that the proposed cleanup action will comply with subsections (2) and (3) of this section; and

(ix) Where the cleanup action involves on-site containment, specification of the types, levels, and amounts of hazardous substances remaining on site and the measures that will be utilized to prevent migration and contact with those substances.

(b) For routine actions the department may use an order or decree to fulfill the requirements of a cleanup action plan, provided that the information in (a) of this subsection is included therein. The scope of detail for the required information shall be commensurate with the complexity of the site and proposed cleanup action.

(11) Public participation. The department will provide public notice and opportunity for comment on the draft cleanup plan as described in WAC 173-340-600.

(12) Final plan. Upon completion of the public comment period the department, after review and consideration of the comments received, shall issue a final cleanup action plan and publish its availability in the site register and by other appropriate methods. If the department determines, following the implementation of the preferred alternative, that the cleanup levels established in the cleanup action plan cannot be achieved, the department shall issue public notice of this determination.

(13) Federal cleanup sites. A record of decision or order or consent decree prepared under the Federal Cleanup Law that provides for a cleanup action may be used by the department to meet the requirements of this section provided:

(a) The cleanup action meets the requirements in subsections (2) and (3) of this section;

(b) The state has concurred with the cleanup action; and

(c) An opportunity was provided for the public to comment on the cleanup action.

[Statutory Authority: Chapter 70.105D RCW. 91-04-019, § 173-340-360, filed 1/28/91, effective 2/28/91; 90-08-086, § 173-340-360, filed 4/3/90, effective 5/4/90.]

WAC 173-340-420 Periodic review. (1) If the department selects or approves a cleanup action that results in hazardous substances remaining at a site at concentrations which exceed method A or method B cleanup levels established under WAC 173-340-700 through 173-340-760 or if conditional points of compliance have been established, the department shall review the cleanup action no less frequently than every five years after the initiation of such cleanup action to assure that human health and the environment are being protected.

(2) When evaluating whether human health and the environment are being protected, the factors the department shall consider shall include:

(a) The effectiveness of ongoing or completed cleanup actions;

(b) New scientific information for individual hazardous substances or mixtures present at the site;

(c) New applicable state and federal laws for hazardous substances present at the site;

(d) Current and projected site uses;

(e) The availability and practicability of higher preference technologies as defined in WAC 173-340-360(4); and

(f) The availability of improved analytical techniques to evaluate compliance with cleanup levels.

(3) The department shall publish a notice of all periodic reviews in the site register and provide an opportunity for public comment.

(4) When the department determines that substantial changes in the cleanup action are necessary to protect human health and the environment at the site, a revised cleanup action plan shall be prepared. The department shall provide opportunities for public review and comment on the draft cleanup action plan consistent with the requirements in WAC 173-340-360 and 173-340-600.

[Statutory Authority: Chapter 70.105D RCW. 91-04-019, § 173-340-420, filed 1/28/91, effective 2/28/91; 90-08-086, § 173-340-420, filed 4/3/90, effective 5/4/90.]

WAC 173-340-430 Interim actions. (1) Purpose. The purpose of this section is to describe how certain interim actions can occur prior to the selection and completion of a cleanup action. An interim action is:

(a) An action that is technically necessary to reduce a threat to human health or the environment by eliminating or substantially reducing one or more pathways for exposure to a hazardous substance at a facility; or

(b) An action that corrects a problem that may become substantially worse or cost substantially more to address if the action is delayed; or

(c) An action needed to provide for completion of a site hazard assessment, state remedial investigation/feasibility study or design of a cleanup action.

Example. A site is identified where oil-based wood preservative has leaked from a tank and is puddled on the ground and is floating on the water table. Run-off from adjacent properties passes through the site. Neighborhood children have been seen on the site. In this case, several interim actions would be appropriate prior to fully defining the extent of the distribution of hazardous substances at the site and selecting a cleanup action. These interim actions might consist of removing the tank, fencing the site, rerouting run-off, and removing the product puddled on the ground and floating on the water table. Further studies would then determine what additional soil and ground water cleanup would be needed.

(2) General requirements.

(a) Interim actions may:

(i) Achieve cleanup standards for a portion of the site; or

(ii) Provide a partial cleanup, that is, cleanup hazardous substances from all or part of the site, but not achieve cleanup standards; or

(iii) Provide a partial cleanup of hazardous substances and not achieve cleanup standards, but provide information on how to achieve cleanup standards for a cleanup.

For example, demonstration of an unproven cleanup method.

(b) Relationship to the cleanup action:

(i) If the cleanup action is known, the interim action shall be consistent with the cleanup action.

(ii) If the cleanup action is not known, the interim action shall not foreclose reasonable alternatives for the cleanup action. This is not meant to preclude the destruction or removal of hazardous substances.

(3) Timing.

(a) Interim actions may occur anytime during the cleanup process. Interim actions shall not be used to delay or supplant the cleanup process. An interim action may be done prior to or in conjunction with a site hazard assessment and hazard ranking. However, sufficient technical information must be available regarding the facility to ensure the interim action is appropriate and warranted.

(b) Interim actions shall be followed by additional remedial actions unless compliance with cleanup standards has been confirmed at the site.

(c) The department shall set appropriate deadlines commensurate with the actions taken for completion of the interim action.

(4) Administrative options. Except as provided in WAC 173-340-530, interim cleanup actions may be conducted under any of the procedures described in WAC 173-340-510.

(5) Public participation will be accomplished in a manner consistent with WAC 173-340-600.

(6) Submittal requirements. Unless otherwise directed by the department and except for underground storage tank releases being addressed under WAC 173-340-450 and emergencies, a report shall be prepared prior to conducting an interim action. Reports prepared under an order or decree shall be submitted to the department for review and approval. Reports shall be of a scope and detail commensurate with the work performed and site-specific characteristics, and shall include, as appropriate:

(a) A description of the interim action and how it will meet the criteria identified in subsections (1) and (2) of this section;

(b) Information from the applicable subsections of the remedial investigation/feasibility study of WAC 173-340-350, including at a minimum;

(i) A description of existing site conditions and a summary of all available data related to the interim action;

(ii) Alternative interim actions considered and an explanation why the proposed alternative was selected;

(c) Information from the applicable subsections of the design and construction requirements of WAC 173-340-400;

(d) A compliance monitoring plan meeting the applicable requirements of WAC 173-340-410;

(e) A safety and health plan meeting the requirements of WAC 173-340-810; and

(f) A sampling and analysis plan meeting the requirements of WAC 173-340-820.

(7) Construction. Construction of the interim action shall be in conformance with WAC 173-340-400(7).

[Statutory Authority: Chapter 70.105D RCW. 91-04-019, § 173-340-430, filed 1/28/91, effective 2/28/91; 90-08-086, § 173-340-430, filed 4/3/90, effective 5/4/90.]

WAC 173-340-440 Institutional controls. (1) Purpose. Institutional controls are measures undertaken to limit or prohibit activities that may interfere with the integrity of an interim action or cleanup action or result in exposure to hazardous substances at a site. Such measures shall be required to assure both the continued protection of human health and the environment and the integrity of an interim action or cleanup action in the following circumstances:

(a) Where a cleanup action results in residual concentrations of hazardous substances which exceed method A or method B cleanup levels, as applicable, established under WAC 173-340-700 through 173-340-760; or

(b) If conditional points of compliance have been established; or

(c) When the department determines such controls are required to assure the continued protection of human health and the environment or the integrity of the cleanup action.

(2) Institutional controls shall not be used as a substitute for cleanup actions that would otherwise be technically possible.

(3) Institutional controls include:

(a) Physical measures, such as fences and signs, to limit activities that may interfere with the cleanup action or result in exposure to hazardous substances at the site; and

(b) Legal and administrative mechanisms used to ensure that such measures are maintained over time.

(4) Format.

(a) For properties owned by the potentially liable parties, appropriate institutional controls shall be described in a restrictive covenant on the property executed by the property owner and recorded with the register of deeds for the county in which the site is located. This restrictive covenant shall run with the land, and be binding on the owner's successors and assigns.

(b) For other properties containing hazardous substances, the department may approve cleanup actions which include restrictive covenants or other legal and/or administrative mechanisms.

(5) Where required, the restrictive covenant shall:

(a) Prohibit activities on the site that may interfere with a cleanup action, operation and maintenance, monitoring, or other measures necessary to assure the integrity of the cleanup action and continued protection of human health and the environment;

(b) Prohibit activities that may result in the release of a hazardous substance which was contained as a part of the cleanup action;

(c) Require notice to the department of the owner's intent to convey any interest in the site. No conveyance of title, easement, lease, or other interest in the property shall be consummated by the property owner without adequate and complete provision for the continued operation, maintenance and monitoring of the cleanup action, and for continued compliance with this subsection;

(d) Require notice and approval by the department of any proposal to use the site in a manner which is inconsistent with the restrictive covenant. If the department, after public notice and comment approves the proposed change, the restrictive covenant shall be amended to reflect the change.

(e) Grant the department and its designated representatives the right to enter the property at reasonable times for the purpose of evaluating compliance with the cleanup action plan and other required plans, including the right to take samples, inspect any remedial actions taken at the site, and to inspect records.

(6) Financial assurances. The department may require the potentially liable person to provide financial assurances, through a trust fund or equivalent financial mechanism approved by the department, sufficient to cover all costs of operation and maintenance including compliance monitoring and undertaking appropriate corrective measures. It is the department's expectation that such assurances will be required wherever the cleanup action includes containment and in other appropriate circumstances.

(7) Removal of restrictions. If the residual hazardous substances remaining at the site are subsequently reduced in concentration such that the method A or method B cleanup levels, as applicable, established under WAC 173-340-700 through 173-340-760 are met without a conditional point of compliance, then the owner may request that the restrictive covenant or other restrictions be eliminated. The restrictive covenant or other restrictions shall be removed, if the department, after public notice and opportunity for comment, concurs.

[Statutory Authority: Chapter 70.105D RCW. 91-04-019, § 173-340-440, filed 1/28/91, effective 2/28/91.]

WAC 173-340-450 Releases from underground storage tanks. (1) Purpose. The purpose of this section is to set forth the requirements for addressing releases which may pose a threat to human health or the environment from USTs defined under chapter 90.76 RCW and rules adopted therein, including heating oil USTs of greater than 1,100 gallons capacity.

(a) Releases from USTs exempted under chapter 90.76 RCW and rules adopted therein are still subject to all other requirements of this chapter.

(b) Unless the department requires otherwise, UST owners and UST operators shall comply with the requirements in this section after confirmation of an UST release which may pose a threat to human health or the environment.

(2) Initial response. Within twenty-four hours of the UST release, the UST owner or the UST operator shall perform the following actions:

(a) Report the UST release to the department and other authorities with jurisdiction, in accordance with rules adopted under chapter 90.76 RCW and any other applicable law;

(b) Remove as much of the hazardous substance from the UST as is possible and necessary to prevent further release to the environment;

(c) Eliminate or reduce any fire, explosion or vapor hazards in such a way as to minimize any release of hazardous substances to surface water and ground water; and

(d) Visually inspect any aboveground releases or exposed belowground releases and prevent the hazardous substance from spreading into surrounding soils, ground water and surface water.

(3) Interim actions.

(a) As soon as possible but no later than twenty days following confirmation of an UST release, the UST owner or the UST operator shall perform the following interim actions:

(i) Continue to monitor and mitigate any additional fire and safety hazards posed by vapors or free product which may have migrated from the UST into structures in the vicinity of the site, such as sewers or basements;

(ii) Reduce the threat to human health and the environment posed by contaminated soils that are excavated or discovered as a result of investigation or cleanup activities. Treatment, storage and disposal of soils must be carried out in compliance with all applicable federal, state and local requirements;

(iii) Test for hazardous substances in the environment where they are most likely to be present. Such testing shall be done in accordance with a sampling and analysis plan prepared under WAC 173-340-820. The sample types, sample locations, and measurement methods shall be based on the nature of the stored substance, type of subsurface soils, depth to ground water and other factors as appropriate for identifying the presence and source of the release. If contaminated soil is found in contact with the ground water or soil contamination appears to extend below the lowest soil sampling depth, then testing shall include the installation of ground water monitoring wells to test for the presence of possible ground water contamination. Information gathered for the site check or closure site assessment conducted pursuant to rules adopted under chapter 90.76 RCW, which sufficiently characterizes the releases at the site, may be substituted for the testing required under this paragraph;

(iv) The testing performed under (a)(iii) of this subsection shall include, at a minimum, the following:

(A) Benzene, toluene, ethylbenzene, xylene, lead, and total petroleum hydrocarbons where leaded gasoline may be present;

(B) Benzene, toluene, ethylbenzene, xylene and total petroleum hydrocarbons where unleaded gasoline may be present;

(C) Total petroleum hydrocarbons and other appropriate indicator hazardous substances where any petroleum product other than gasoline may be present;

(D) The hazardous substance stored and any likely decomposition by-products where a hazardous substance other than petroleum may be present; and

(E) Any other tests required by the department; and

(v) Investigate for the presence of free product.

(b) Free product removal. At sites where investigations indicate free product is present, the UST owner or the UST operator shall conduct, as soon as possible after discovery, an interim action to remove the free product

while continuing, as necessary, any other actions required under this section. To accomplish this the UST owner or UST operator shall:

(i) Conduct free product removal to the maximum extent practicable and in a manner which minimizes the spread of hazardous substances, by using recovery and disposal techniques appropriate to the hydrogeologic conditions at the site. The objective of free product removal system must be, at a minimum, to stop the free product migration;

(ii) Properly treat, discharge, or dispose of recovery by-products in compliance with all applicable local, state, and federal regulations and permits; and

(iii) Handle all flammable products safely to prevent fires and explosions.

(4) Reporting requirements. The following reports are required to be submitted to the department:

(a) Status report. Within twenty days after an UST release, the UST owner or UST operator shall submit a status report to the department. The status report shall identify if known, the types, amounts, and locations of hazardous substances released, how the release occurred, evidence confirming the release, actions taken under subsections (2) and (3) of this section, any planned remedial actions, and any results of work done up to the time of the report. This report may be provided verbally to the department.

(b) Site characterization reports. Within ninety days after release confirmation, unless directed to do otherwise by the department, the UST owner or UST operator shall submit a report to the department about the site and nature of the release. This report shall be submitted to the department in writing and may be combined with the twenty-day status report, if the information required is available at that time. The site characterization report shall include, at a minimum, the following information:

(i) The information required for the status report under (a) of this subsection;

(ii) A site conditions map indicating approximate boundaries of the property, all areas where hazardous substances are known or suspected to be located, and sampling locations. This map may consist of a sketch of the site at a scale sufficient to illustrate this information;

(iii) Available data regarding surrounding populations, surface and ground water quality, use and approximate location of wells potentially affected by the release, subsurface soil conditions, depth to ground water, direction of ground water flow, proximity to and potential for affecting surface water, locations of sewers and other potential conduits for vapor or free product migration, surrounding land use, and proximity to sensitive environments;

(iv) Results of tests for hazardous substances performed under subsection (3)(a)(iii) and (iv) of this section;

(v) Results of the free product investigation required under subsection (3)(a)(v) of this section;

(vi) Results of all completed site investigations, interim actions and cleanup actions and a description of

any remaining investigations, cleanup actions and compliance monitoring which are planned or underway; and

(vii) Information on the free product removal efforts at sites where investigations indicate free product is present. This shall include, at a minimum, the following information:

(A) Name of the person responsible for implementing the free product removal measures;

(B) The estimated quantity, type, and thickness of free product observed or measured in wells, boreholes and excavations;

(C) The type of free product recovery system used;

(D) The location of any on-site or off-site discharge during the recovery operation;

(E) The type of treatment applied to, and the effluent quality expected from, any discharge;

(F) The steps taken and planned to obtain necessary permits for any discharge;

(G) Disposition of recovered free product; and

(viii) Any other information required by the department.

(5) State remedial investigation and feasibility study.

(a) The scope of a state remedial investigation and feasibility study under this chapter will depend on the informational needs at a specific site and will vary from site to site to avoid the collection of unnecessary information. For sites with UST releases, a state remedial investigation and feasibility study must at a minimum address the elements in WAC 173-340-350 (6)(a), (b), (c)(ii), (c)(iii), (c)(v) through (c)(vii) and (e). The department may require additional information when needed to select a cleanup action. UST owners and operators shall conduct a state remedial investigation and feasibility study for sites where the following conditions exist:

(i) There is evidence that the release has caused hazardous substances to be present in the ground water in excess of the ground water standards promulgated under chapter 90.48 RCW or cleanup levels in WAC 173-340-720 (Table 1);

(ii) Free product is found; or

(iii) Where otherwise required by the department.

(b) UST owners and UST operators shall submit the information collected for the state remedial investigation/feasibility study to the department as soon as practicable. The information may be included with other reports submitted under this section.

(6) If the department determines, based on the results of the remedial investigation/feasibility study or other information, that additional remedial action is required, the department may require the UST owner or the UST operator to submit engineering documents as described in WAC 173-340-400.

(7) Unless directed to do otherwise by the department, cleanup actions performed by UST owners or UST operators shall comply with cleanup standards, WAC 173-340-700 through 173-340-750 and the requirements for the selection of cleanup actions, WAC 173-340-360.

(8) Independent cleanup actions. In addition to work performed under subsections (2) through (5), and (7) of

this section, UST owners or UST operators performing independent cleanup actions shall:

(a) Notify the department of their intention to begin cleanup. This can be included with other reports under this section;

(b) Comply with any conditions imposed by the department to assure adequate protection of human health and the environment; and

(c) Within ninety days of completion of the cleanup action, submit the results of all investigations, interim and cleanup actions and compliance monitoring not previously submitted to the department.

[Statutory Authority: Chapter 70.105D RCW. 91-04-019, § 173-340-450, filed 1/28/91, effective 2/28/91.]

WAC 173-340-700 Overview of cleanup standards.

(1) Purpose. This section provides an overview of the methods for establishing cleanup standards that apply to a release or threatened release of a hazardous substance at a site. If there are any inconsistencies between this section and any specifically referenced section, the referenced section shall govern.

(2) Cleanup standards versus selection of cleanup actions.

(a) Cleanup standards are identified for the particular hazardous substances at a site and the specific areas or pathways, such as land or water, where humans and the environment can become exposed to these substances. This part provides uniform methods state-wide for identifying cleanup standards and requires that all cleanups under the act meet these standards. The actual degree of cleanup may vary from site to site and will be determined by the cleanup action alternative selected under WAC 173-340-360. Establishing cleanup standards for individual sites requires the specification of the following:

(i) Hazardous substance concentrations that protect human health and the environment ("cleanup levels");

(ii) The location on the site where those cleanup levels must be attained ("points of compliance"); and

(iii) Additional regulatory requirements that apply to a cleanup action because of the type of action and/or the location of the site. These requirements are specified in applicable state and federal laws and are generally established in conjunction with the selection of a specific cleanup action.

(b) For most sites, there are several cleanup technologies or combinations of cleanup technologies ("cleanup action alternatives") that may be used to comply with cleanup standards at individual sites. Other parts of this rule govern the process for planning and deciding on the cleanup action to be taken at a site. For example, WAC 173-340-350 (State remedial investigation and feasibility study) (RI/FS) specifies the studies that are prepared to define the nature and extent of contamination ("RI") and to identify and evaluate cleanup action alternatives ("FS"). WAC 173-340-360 (Selection of cleanup actions) specifies the criteria for selecting the preferred alternative. WAC 173-340-410 specifies the monitoring required to assure that the remedy is effective.

(c) The department recognizes that cleanup actions selected under WAC 173-340-360 may involve containment of hazardous substances. In these cases, the cleanup action may be determined to comply with cleanup standards, provided the compliance monitoring program is designed to ensure the long-term integrity of the containment system, and the other requirements for containment technologies in WAC 173-340-360(8) are met.

(3) Three basic methods for establishing cleanup levels. These rules provide three approaches for establishing cleanup levels:

(a) Method A: Tables. On some sites, the cleanup action may be routine (WAC 173-340-130) or may involve relatively few hazardous substances. Under Method A, cleanup levels for hazardous substances are established at concentrations at least as stringent as concentrations specified in applicable state and federal laws and Tables 1, 2, or 3 of this chapter. Method A cleanup levels for hazardous substances not addressed under applicable state and federal laws or Tables 1, 2, or 3 are established at concentrations which do not exceed the natural background concentration or the practical quantitation limit for the substance in question.

(b) Method B: Standard method. Method B is the standard method for determining cleanup levels for ground water, surface water, soil, and air. Cleanup levels for individual hazardous substances are established using applicable state and federal laws or the risk equations specified in WAC 173-340-720 through 173-340-750. For individual carcinogens, cleanup levels are based upon the upper bound of the estimated excess lifetime cancer risk of one in one million (1×10^{-6}). For individual noncarcinogenic substances, cleanup levels are set at concentrations which are anticipated to result in no acute or chronic toxic effects on human health and the environment. Where a hazardous waste site involves multiple hazardous substances and/or multiple pathways of exposure, method B cleanup levels for individual substances must be modified in accordance with the procedures in WAC 173-340-708. Under this method, the total excess lifetime cancer risk for a site shall not exceed one in one hundred thousand (1×10^{-5}) and the hazard index for substances with similar noncarcinogenic toxic effects shall not exceed one (1).

(c) Method C: Conditional method. Compliance with cleanup levels developed under the method A or B may be impossible to achieve or may cause greater environmental harm. In those situations, method C cleanup levels for individual hazardous substances may be established on the basis of applicable state and federal laws and a site-specific risk assessment. Method C cleanup levels may also be established at industrial sites which meet the criteria in WAC 173-340-745. For individual carcinogens, method C cleanup levels are based upon the upper bound of the estimated lifetime cancer risk of one in one hundred thousand (1×10^{-5}). For individual noncarcinogenic substances, method C cleanup levels are set at concentrations which are anticipated to result in no acute or chronic toxic effects on human

health and no significant adverse effects on the protection and propagation of aquatic and terrestrial organisms. Where a hazardous waste site involves multiple hazardous substances and/or multiple pathways of exposure, method C cleanup levels for individual substances must be modified in accordance with the procedures in WAC 173-340-708. Under this method, the total excess lifetime cancer risk for a site shall not exceed one in one hundred thousand (1×10^{-5}) and the hazard index for substances with similar noncarcinogenic toxic effects shall not exceed one (1).

(4) Additional requirements for setting cleanup levels. Several requirements apply to cleanups under any of the three basic methods. Some of these requirements, such as the identification of applicable state and federal laws, describe analyses used along with methods A, B or C in order to set cleanup levels for particular substances at a site. Others describe the technical procedures to be used.

(a) Applicable state and federal laws. RCW 70.105D.030 (2)(d) requires the cleanup standards in these rules to be "at least as stringent as all applicable state and federal laws." In addition to establishing minimum requirements for cleanup standards, applicable state and federal laws may also impose certain technical and procedural requirements for performing cleanup actions. These requirements are described in WAC 173-340-710 and are similar to the "ARAR" (applicable, relevant and appropriate requirements) approach of the federal superfund law.

(b) Cross-media contamination. In some situations, migration of hazardous substances from one medium may cause contamination in a second media. For example, the release of hazardous substances in soil may cause ground water contamination. Under methods A, B, and C, cleanup levels must be established at concentrations which prevent violations of cleanup levels for other media following implementation of the cleanup action.

(c) Risk assessment procedures. The analyses performed under methods B and C use several factors for defining cleanup levels for carcinogens and noncarcinogens. The individual factors and procedures for modifying these factors based on new scientific information are specified in WAC 173-340-708 and 173-340-720 through 173-340-750. WAC 173-340-708 also provides rules for use of indicator hazardous substances.

(d) Natural background. Cleanup levels shall not exceed concentrations established under methods A, B, or C except where the natural background concentration is greater than the cleanup level established under those methods. In such situations, the cleanup level shall be established at a concentration equal to the natural background concentration.

(5) Threshold criteria for all cleanup actions. WAC 173-340-360 specifies that all cleanup actions conducted under this chapter shall protect human health and the environment, comply with cleanup standards and applicable state and federal laws, and provide for compliance monitoring. These are the threshold criteria

and all cleanup actions must meet these criteria regardless of other factors such as cost or technical limitations.

(6) Measuring compliance. Setting cleanup standards also involves being able to demonstrate that they have been met. This involves specifying where on the site the cleanup levels must be met ("points of compliance"), how long it takes for a site to meet cleanup levels ("restoration time frame"), and conducting sufficient monitoring to demonstrate that the cleanup standards have been met and will continue to be met in the future. The provisions for establishing points of compliance are in WAC 173-340-720 through 173-340-750. The provisions for establishing restoration time frames are in WAC 173-340-360. The compliance monitoring plan prepared under WAC 173-340-410 specifies precisely how these are measured for each site. Where cleanup levels are below the practical quantitation limit, compliance with cleanup standards will be based upon the practical quantitation limit.

(7) Administrative principles for cleanup standards.

(a) Remedial actions under this chapter shall be conducted in a manner that is consistent with this section. This section shall be used in combination with WAC 173-340-130, the more specific sections in Part VII of this chapter and WAC 173-340-360.

(b) Establishing cleanup standards and selecting an appropriate cleanup action involves many technical and public policy decisions. This chapter is intended to constrain the range of decisions needed to be made on individual sites to promote expeditious cleanups.

(c) The act contains policies which state, in part, each person has a fundamental and inalienable right to a healthful environment and it is essential that sites be cleaned up well. Consistent with these policies, cleanup standards under this chapter shall be established which provide conservative estimates of human health and environmental risks which protect susceptible individuals as well as the general population.

(d) Cleanup standards under this chapter shall be established which protect human health and the environment for current and potential future site and resource uses.

(e) Cleanup actions that achieve cleanup levels under methods A, B or C (as applicable) and comply with applicable state and federal laws shall be presumed to be protective of human health and the environment.

(f) Except as provided for in applicable state and federal laws, cost shall not be a factor in determining what cleanup level is protective of human health and the environment. In addition, where specifically provided for in this chapter, cost may be appropriate for certain other determinations related to cleanup standards such as point of compliance. Cost shall, however, be considered when selecting an appropriate cleanup action.

(g) At most sites, there is more than one hazardous substance and more than one pathway for hazardous substances to get into the environment. For many sites there is more than one technology that could address each of these. When evaluating cleanup action alternatives it is appropriate to consider a representative range of technologies that could address each of these as well

as different combinations of these technologies to accomplish the overall site cleanup.

(h) The cleanup of a particular media of a site will often affect other media at the site. These cross-media impacts shall be considered when establishing cleanup standards and selecting a cleanup action. Cleanup actions conducted under this chapter shall use appropriate engineering controls or other measures to minimize these cross-media impacts.

(i) In general, cleanup levels must be met throughout a site before the site will be considered to be clean. A remedy that leaves hazardous substances on a site in excess of cleanup levels may qualify as a cleanup action as long as the remedy is protective of human health and the environment, meets cleanup levels at specified points of compliance, complies with applicable state and federal laws, provides for adequate monitoring, and incorporates appropriate institutional controls. However, these rules are intended to promote thorough cleanups rather than long-term partial cleanups or containment measures.

[Statutory Authority: Chapter 70.105D RCW. 91-04-019, § 173-340-700, filed 1/28/91, effective 2/28/91; 90-08-086, § 173-340-700, filed 4/3/90, effective 5/4/90.]

WAC 173-340-702 General policies. (1) Purpose. This section defines the policies and principles that the department shall utilize to ensure that cleanup standards under this chapter are established and implemented in a scientifically and technically sound manner.

(2) Relationship to federal cleanup law. When evaluating cleanup actions performed under the federal cleanup law, the department shall consider WAC 173-340-360 and 173-340-700 through 173-340-760 to be a legally applicable requirement under Section 121(d) of the Federal Cleanup Law.

(3) Regulation update. The department shall review and, as appropriate, update WAC 173-340-700 through 173-340-760 no less frequently than once every five years.

(4) Institutional controls. Institutional controls under WAC 173-340-440 shall be required whenever a cleanup action results in residual concentrations of hazardous substances which exceed method A or method B cleanup levels, as applicable, or conditional points of compliance are approved by the department under WAC 173-340-720 through 173-340-760. Institutional controls shall also be required when cleanup levels are established under WAC 173-340-745.

(5) Burden of proof. Any person responsible for undertaking a cleanup action under this chapter who proposes to establish a cleanup level under method C or a conditional point of compliance shall have the burden of demonstrating to the department that requirements in this part have been met to assure protection of human health and the environment. The department shall only approve cleanup levels under method C or conditional points of compliance when it determines that that the person undertaking the cleanup actions met this burden of proof.

(6) New scientific information. The department shall consider new scientific information when establishing

cleanup levels for individual sites. In making a determination on how to use this new information, the department shall, as appropriate, consult with the science advisory board, the department of health, and the United States Environmental Protection Agency.

[Statutory Authority: Chapter 70.105D RCW. 91-04-019, § 173-340-702, filed 1/28/91, effective 2/28/91.]

WAC 173-340-704 Use of method A. (1) Method A may be used to establish cleanup levels at the following types of sites:

(a) Sites undergoing routine cleanup actions as defined in WAC 173-340-130; or

(b) Sites where numerical standards are available in this chapter or applicable state and federal laws for all indicator hazardous substances in all media of concern.

(2) Method A cleanup levels shall be established in accordance with the procedures in WAC 173-340-720 through 173-340-760. Method A cleanup levels shall be at least as stringent as all of the following:

(a) Concentrations of individual hazardous substances listed in the tables in WAC 173-340-720, 173-340-740, or 173-340-745;

(b) Concentrations of individual hazardous substances established under applicable state and federal laws; and

(c) For individual hazardous substances not addressed under (a) and (b) of this subsection, concentrations that do not exceed natural background levels or the practical quantitation limit for the substance in question.

(3) The department may establish method A cleanup levels more stringent than those required by subsection (2) of this section, when based on a site-specific evaluation, the department determines that such levels are necessary to protect human health and the environment.

(4) Caution on misusing method A tables. Method A tables have been developed for specific purposes. They are intended to provide conservative cleanup levels for sites undergoing routine cleanup actions or those sites with relatively few hazardous substances. The tables may not be appropriate for defining cleanup levels at other sites. For these reasons, the values in these tables should not automatically be used to define cleanup levels that must be met for financial, real estate, insurance coverage or placement, or similar transactions or purposes. Exceedances of the values in these tables do not necessarily trigger requirements for cleanup action under this chapter.

(5) If there are any inconsistencies between this section and any specifically referenced sections, the referenced section shall govern.

[Statutory Authority: Chapter 70.105D RCW. 91-04-019, § 173-340-704, filed 1/28/91, effective 2/28/91.]

WAC 173-340-705 Use of method B. (1) Method B is applicable to all sites. It shall be used to develop cleanup levels unless one or more of the conditions for using method A or method C are demonstrated to exist and the person conducting the cleanup action elects to utilize that method.

(2) Method B cleanup levels shall be established in accordance with the procedures in WAC 173-340-720

through 173-340-760. Method B cleanup levels shall be at least as stringent as all of the following:

(a) Concentrations of individual hazardous substances established under applicable state and federal laws;

(b) Concentrations which are estimated to result in no adverse effects on the protection and propagation of aquatic and terrestrial life;

(c) For hazardous substances for which sufficiently protective, health-based criteria or standards have not been established under applicable state and federal laws, those concentrations which protect human health and the environment as determined by the following methods:

(i) Concentrations which are estimated to result in no acute or chronic toxic effects on human health as determined using a hazard quotient of one (1) and the procedures specified in WAC 173-340-720 through 173-340-760;

(ii) For known or suspected carcinogens, concentrations for which the upper bound on the estimated excess cancer risk is less than or equal to one in one million as determined using the procedures specified in WAC 173-340-720 through 173-340-760; and

(iii) Concentrations which eliminate or minimize the potential for food chain contamination; and

(3) The department may establish method B cleanup levels that are more stringent than those required by subsection (2) of this section, when based upon a site-specific evaluation, the department determines that such levels are necessary to protect human health and the environment.

(4) Concentrations of individual hazardous substances established under subsections (2) and (3) of this section, including those based on applicable state and federal laws, shall be adjusted downward to take into account exposure to multiple hazardous substances and/or exposure resulting from more than one pathway of exposure. These adjustments shall be made in accordance with the procedures in WAC 173-340-708. In making these adjustments, the hazard index shall not exceed one (1) and the total excess cancer risk shall not exceed one in one hundred thousand. These overall limits on the hazard index and total excess cancer risk shall also apply to sites where there is exposure to a single hazardous substance by one exposure pathway, including cleanup levels based on applicable state and federal laws.

(5) If there are any inconsistencies between this section and any specifically referenced sections, the referenced section shall govern.

[Statutory Authority: Chapter 70.105D RCW. 91-04-019, § 173-340-705, filed 1/28/91, effective 2/28/91.]

WAC 173-340-706 Use of method C. (1) Method C cleanup levels represent concentrations which are protective of human health and the environment for specified site uses. Method C cleanup levels may be established where the person undertaking the cleanup action can demonstrate that such levels comply with applicable state and federal laws, that all practicable methods of treatment are utilized, that institutional controls are implemented in accordance with WAC 173-

340-440, and that one or more of the following conditions exist:

(a) Where method A or B cleanup levels are below area background concentrations, method C cleanup levels may be established at concentrations that are equal to area background concentrations, but in no case greater than concentrations specified in subsection (2) of this section;

(b) Where attainment of method A or B cleanup levels has the potential for creating a significantly greater overall threat to human health or the environment than attainment of method C cleanup levels established under this chapter, method C cleanup levels may be established at concentrations which minimize those overall threats, but in no case greater than concentrations specified in subsection (2) of this section. Factors that shall be considered in making this determination include:

- (i) Results of a site-specific risk assessment;
- (ii) Duration of threats;
- (iii) Reversibility of threats;
- (iv) Magnitude of threats; and
- (v) Nature of affected population.

(c) Where method A or B cleanup levels are below technically possible concentrations, method C cleanup levels may be established at the technically possible concentrations, but in no case greater than levels specified in subsection (2) of this section; or

(d) The site is defined as an industrial site and meets the criteria for establishing soil cleanup levels under WAC 173-340-745.

(2) Method C cleanup levels shall be established in accordance with the procedures in WAC 173-340-720 through 173-340-760. Method C cleanup levels shall be at least as stringent as all of the following:

(a) Concentrations established under applicable state and federal laws;

(b) Concentrations which are estimated to result in no significant adverse effects on the protection and propagation of aquatic and terrestrial life;

(c) For hazardous substances for which sufficiently protective, health-based criteria or standards have not been established under applicable state and federal laws, those concentrations which are protective of human health and the environment as determined by the following methods:

(i) Concentrations which are estimated to result in no significant adverse acute or chronic toxic effects on human health as estimated using a hazard quotient of one (1) and the procedures defined in WAC 173-340-720 through 173-340-760;

(ii) For known or suspected carcinogens, concentrations for which the upper bound on the estimated excess cancer risk is less than or equal to one in one hundred thousand as determined using the procedures defined in WAC 173-340-720 through 173-340-760; and

(iii) Concentrations which eliminate or minimize the potential for food chain contamination.

(3) The department may establish method C cleanup levels that are more stringent than those required by subsection (2) of this section when based upon a site-

specific evaluation, the department determines that such levels are necessary to protect human health and the environment.

(4) Concentrations of individual hazardous substances established under subsections (2) and (3) of this section, including those based on applicable state and federal laws, shall be adjusted downward to take into account exposure to multiple hazardous substances and/or exposure resulting from more than one pathway of exposure. These adjustments shall be made in accordance with WAC 173-340-708. In making these adjustments, the hazard index shall not exceed one (1) and the total excess cancer risk shall not exceed one in one hundred thousand. These overall limits on the hazard index and total excess cancer risk shall also apply to sites where there is exposure to a single hazardous substance by one exposure pathway, including cleanup levels based on applicable state and federal laws.

(5) If there are any inconsistencies between this subsection and any specifically referenced sections, the referenced section shall govern.

[Statutory Authority: Chapter 70.105D RCW. 91-04-019, § 173-340-706, filed 1/28/91, effective 2/28/91.]

WAC 173-340-707 Analytical considerations. (1) Analytical methods used to evaluate the effectiveness of a cleanup action shall comply with the requirements in WAC 173-340-830.

(2) The department recognizes that there may be situations where a hazardous substance is not detected or is detected at a concentration below the practical quantitation limit utilizing sampling and analytical procedures which comply with the requirements of WAC 173-340-830. If those situations arise and the practical quantitation limit is higher than the cleanup level for that substance, the cleanup level shall be considered to have been attained, subject to subsection (4) of this section, only when the more stringent of the following conditions are met:

(a) The practical quantitation limit is no greater than ten times the method detection limit; or

(b) The practical quantitation limit for the particular hazardous substance, medium, and analytical procedure is no greater than the practical quantitation limit established by the United States Environmental Protection Agency and used to establish requirements in 40 CFR 136, 40 CFR 141 through 143, or 40 CFR 260 through 270.

(3) In cases where a cleanup level required by this chapter is less than the practical quantitation limit using an approved analytical procedure, the department may also require one or more of the following:

(a) Use of surrogate measures of hazardous substance contamination;

(b) Use or development of specialized sample collection or analysis techniques to improve the method detection limit or practical quantitation limit for the hazardous substances at the site; or

(c) Monitoring to assure that the concentration of a hazardous substance does not exceed detectable levels.

(4) When the practical quantitation limit is above the cleanup level, the department shall consider the availability of improved analytical techniques when performing periodic reviews under WAC 173-340-420. Subsequent to those reviews, the department may require the use of improved analytical techniques with lower practical quantitation limits and other appropriate actions.

[Statutory Authority: Chapter 70.105D RCW. 91-04-019, § 173-340-707, filed 1/28/91, effective 2/28/91.]

WAC 173-340-708 Human health risk assessment procedures. (1) Purpose. This section defines the risk assessment framework that the department will utilize to establish cleanup levels.

(2) Selection of indicator hazardous substances.

(a) When defining cleanup requirements at a site that is contaminated with a large number of hazardous substances, the department may eliminate from consideration those hazardous substances that contribute a small percentage of the overall threat to human health and the environment. The remaining hazardous substances shall serve as indicator hazardous substances for purposes of defining site cleanup requirements.

(b) If the department considers this approach appropriate for a particular site, the factors evaluated when eliminating individual hazardous substances from further consideration shall include:

(i) The toxicological characteristics of the hazardous substance that influence its ability to adversely affect human health or the environment relative to the concentration of the hazardous substance at the site;

(ii) The chemical and physical characteristics of the hazardous substance which govern its tendency to persist in the environment;

(iii) The chemical and physical characteristics of the hazardous substance which govern its tendency to move into and through environmental media;

(iv) The natural background concentrations of the hazardous substance;

(v) The thoroughness of testing for the hazardous substance at the site;

(vi) The frequency that the hazardous substance has been detected at the site; and

(vii) Degradation by-products of the hazardous substance.

(c) When the department determines that the use of indicator hazardous substances is appropriate for a particular site, it may also require biological testing to address potential toxic effects associated with hazardous substances eliminated from consideration under this subsection.

(3) Reasonable maximum exposure.

(a) Cleanup levels shall be based on estimates of current and future resource uses and reasonable maximum exposures expected to occur under both current and potential future site use conditions.

(b) The reasonable maximum exposure is defined as the highest exposure that is reasonably expected to occur at a site under current and potential future site use. WAC 173-340-720 through 173-340-760 define the

reasonable maximum exposures for ground water, surface water, soil, and air. These reasonable maximum exposures will apply to most sites where individuals or groups of individuals are or could be exposed to hazardous substances. For example, the reasonable maximum exposure for most ground water is defined as exposure to hazardous substances in drinking water and other domestic uses.

(c) Persons performing cleanup actions under this chapter may utilize the evaluation criteria in WAC 173-340-720 through 173-340-760 to demonstrate that the reasonable maximum exposure scenarios specified in those sections are not appropriate for a particular site. The use of an alternate exposure scenario shall be documented by the person performing the cleanup action. Documentation for the use of alternate exposure scenarios shall be based on the results of investigations performed in accordance with WAC 173-340-350.

(d) Individuals or groups of individuals may be exposed to hazardous substances through more than one exposure pathway. For example, a person may be exposed to hazardous substances from a site by drinking contaminated ground water, eating contaminated fish, and breathing contaminated air. At sites where the same individuals or groups of individuals are or could be consistently exposed through more than one pathway, the reasonable maximum exposure shall represent the total exposure through all of those pathways. At such sites, the cleanup levels derived for individual pathways under WAC 173-340-720 through 173-340-760 shall be adjusted downward to take into account multiple exposure pathways.

(4) Cleanup levels for individual hazardous substances. Cleanup levels for individual hazardous substances will generally be based on a combination of requirements in applicable state and federal laws and risk assessment.

(5) Multiple hazardous substances.

(a) Cleanup levels for individual hazardous substances established under methods B and C shall be adjusted downward to take into account exposure to multiple hazardous substances. Adverse effects resulting from exposure to two or more hazardous substances with similar types of toxic response are assumed to be additive unless scientific evidence is available to demonstrate otherwise.

(b) Cancer risks resulting from exposure to two or more carcinogens are assumed to be additive unless scientific evidence is available to demonstrate otherwise.

(c) For purposes of establishing cleanup levels for noncarcinogens under methods B and C, the health threats resulting from exposure to two or more hazardous substances with similar types of toxic response may be apportioned between those hazardous substances in any combination as long as the hazard index does not exceed one (1).

(d) For purposes of establishing cleanup levels for carcinogens under methods B and C, the cancer risks resulting from exposure to multiple hazardous substances may be apportioned between hazardous substances in any combination as long as the total excess

cancer risk does not exceed one in one hundred thousand.

(e) The department may require biological testing to assess the potential interactive effects associated with chemical mixtures.

(6) Multiple pathways of exposure.

(a) Estimated doses of individual hazardous substances resulting from more than one pathway of exposure are assumed to be additive unless scientific evidence is available to demonstrate otherwise.

(b) Cleanup levels based on one pathway of exposure shall be adjusted downward to take into account exposures from more than one exposure pathway. The number of exposure pathways considered at a given site shall be based on the reasonable maximum exposure scenario as defined in WAC 173-340-708(3).

(c) For purposes of establishing cleanup levels for noncarcinogens under methods B and C, the health threats associated with exposure via multiple pathways may be apportioned between exposure pathways in any combination as long as the hazard index does not exceed one (1).

(d) For purposes of establishing cleanup levels for carcinogens under methods B and C, the cancer risks associated with exposure via multiple pathways may be apportioned between exposure pathways in any combination as long as the total excess cancer risk does not exceed one in one hundred thousand.

(7) Reference doses.

(a) The chronic reference dose and the developmental reference dose shall be used to establish cleanup levels under this chapter. Cleanup levels shall be established using the value which results in the most protective concentration.

(b) Inhalation reference doses shall be used in WAC 173-340-750. Where the inhalation reference dose is reported as a concentration in air, that value shall be converted to a corresponding inhaled intake (mg/kg-day) using a human body weight of 70 kg and an inhalation rate of 20 m³/day.

(c) A subchronic reference dose may be utilized to evaluate potential noncarcinogenic effects resulting from exposure to hazardous substances over short periods of time. This value may be used in place of the chronic reference dose where it can be demonstrated that a particular hazardous substance will degrade to negligible concentrations during the exposure period.

(d) For purposes of establishing cleanup levels for hazardous substances under this chapter, a reference dose established by the United States Environmental Protection Agency and available through the "integrated risk information system" data base shall be used unless the department determines that there is clear and convincing scientific data which demonstrates that the use of this value is inappropriate.

(e) If a reference dose is not available through the "integrated risk information system" or is demonstrated to be inappropriate under (d) of this subsection, a reference dose shall be established utilizing the methods described in Risk Assessment Guidance for Superfund.

Human Health Evaluation Manual, Part A. (October 1989.)

(f) In estimating a reference dose for a hazardous substance under (e) of this subsection, the department shall consult with the science advisory board, the department of health, and the United States Environmental Protection Agency.

(g) Where a reference dose other than those established under (d) of this subsection is used to establish a cleanup level at individual sites, the department shall summarize the scientific rationale for the use of those values in the cleanup action plan. The department shall provide the opportunity for public review and comment on this value in accordance with the requirements of WAC 173-340-360 and 173-340-600.

(8) Carcinogenic potency factor.

(a) For purposes of establishing cleanup levels for hazardous substances under this chapter, a carcinogenic potency factor established by the United States Environmental Protection Agency and available through the "integrated risk information system" data base shall be used unless the department determines that there is clear and convincing scientific data which demonstrates that the use of this value is inappropriate.

(b) If a carcinogenic potency factor is not available through the "integrated risk information system" or is demonstrated to be inappropriate under (a) of this subsection, one of the following methods shall be utilized to establish a carcinogenic potency factor:

(i) The carcinogenic potency factor may be derived from appropriate human epidemiology data on a case-by-case basis; or

(ii) The carcinogenic potency factor may be derived from animal bioassay data using the following procedures:

(A) All carcinogenesis bioassays shall be reviewed and data of appropriate quality shall be used for establishing the carcinogenic potency factor.

(B) The linearized multistage extrapolation model shall be utilized to estimate the slope of the dose-response curve unless the department determines that there is clear and convincing scientific data which demonstrates that the use of an alternate extrapolation model is more appropriate;

(C) All doses shall be adjusted to give an average daily dose over the study duration; and

(D) An interspecies scaling factor shall be used to take into account differences between animals and humans. This scaling factor shall be based on the assumption that milligrams per surface area is an equivalent dose between species unless the department determines there is clear and convincing scientific data which demonstrates that an alternate procedure is more appropriate. The slope of the dose response curve for the test species shall be multiplied by this scaling factor in order to obtain the carcinogenic potency factor, except where such scaling factors are incorporated into the extrapolation model under (B) of this subsection. Where adequate pharmacokinetic and metabolism studies are available, data from these studies may be utilized to adjust the interspecies scaling factor.

(c) In estimating a carcinogenic potency factor for a hazardous substance under (b) of this subsection, the department shall consult with the science advisory board, the department of health, and the United States Environmental Protection Agency.

(d) Where a carcinogenic potency factor other than that established under (a) of this subsection is used to establish cleanup levels at individual sites, the department shall summarize the scientific rationale for the use of that value in the cleanup action plan. The department shall provide the opportunity for public review and comment on this value in accordance with the requirements of WAC 173-340-360 and 173-340-600.

(9) Bioconcentration factors.

(a) For purposes of establishing cleanup levels for a hazardous substance under WAC 173-340-730, a bioconcentration factor established by the United States Environmental Protection Agency and utilized to establish the ambient water quality criterion for that substance under section 304 of the Clean Water Act shall be used unless the department determines that there is clear and convincing scientific data which demonstrates that the use of an alternate value is more appropriate.

(b) When utilizing a bioconcentration factor other than that utilized to establish the ambient water quality criterion, the department shall consult with the science advisory board, the department of health, and the United States Environmental Protection Agency.

(c) Where a bioconcentration factor other than that established under (a) of this subsection is used to establish cleanup levels at individual sites, the department shall summarize the scientific rationale for the use of that factor in the draft cleanup action plan. The department shall provide the opportunity for public review and comment on the value in accordance with the requirements of WAC 173-340-360 and 173-340-600.

(10) Exposure parameters.

(a) As a matter of policy, the department has defined the exposure parameters to be used when establishing cleanup levels under this chapter. With the exception of the parameters identified in (b) of this subsection, these parameters shall not be modified for individual hazardous substances or sites in a manner which results in a less stringent cleanup level. The scientific and technical basis for these parameters shall be reviewed when updating this chapter under WAC 173-340-704(3).

(b) The department may approve the use of values other than those specified in WAC 173-340-720 through 173-340-760 where there is clear and convincing scientific data which demonstrates that one or more of the following parameters should be modified for an individual hazardous substance or site:

- (i) Gastrointestinal absorption rate;
- (ii) Inhalation correction factor;
- (iii) Bioconcentration factor; or
- (iv) Inhalation absorption rate.

(c) Where exposure parameters other than those established under WAC 173-340-720 through 173-340-760 are used to establish cleanup levels at individual sites, the department shall summarize the scientific rationale for the use of those parameters in the cleanup

action plan. The department shall provide the opportunity for public review and comment on those values in accordance with the requirements of WAC 173-340-360 and 173-340-600.

(11) Methods for defining background concentrations.

(a) Sampling of hazardous substances in background areas may be conducted to distinguish site-related concentration from nonsite related concentrations of hazardous substances or to support the development of a method C cleanup level under the provisions of WAC 173-340-706. For purposes of this chapter, two types of background may be determined, natural background and area background concentrations.

(b) For purposes of defining background concentrations, samples shall be collected from areas that have the same basic characteristics as the medium of concern at the site, have not been influenced by releases from the site and, in the case of natural background concentrations, have not been influenced by releases from other localized human activities.

(c) The statistical method used to evaluate available data shall be appropriate for the distribution of each hazardous substance. If the distribution of the hazardous substance data is inappropriate for statistical methods based on a normal distribution, then the data may be transformed. If the distributions of individual hazardous substances differ, more than one statistical method may be required at a site. In general, appropriate statistical methods include the following:

(i) A tolerance interval procedure in which an interval for each hazardous substance is established from the distribution of background data and the cleanup level of each hazardous substance is compared to the lower tolerance limit; and

(ii) Other statistical methods proposed by the person undertaking the cleanup action and approved by the department.

(d) If a tolerance interval approach is used to evaluate natural background data, the tolerance interval shall have a coverage of ninety-five percent and a tolerance coefficient of ninety-five percent. When determining natural background concentrations, sample size of ten or more background soil samples shall be required. When determining area background concentrations, a sample size of twenty or more soil samples shall be required. The number of samples for other media shall be sufficient to provide a representative measure of background concentrations and shall be determined on a case-by-case basis.

(e) For purposes of estimating background concentrations, values below the method detection limit shall be assigned a value equal to one-half of the method detection limit. Measurements above the method detection limit, but below the practical quantitation limit shall be assigned a value equal to the method detection limit. The department may approve the use of alternate statistical procedures for handling data below the method detection limit or practical quantitation limit. Alternate statistical procedures may include probit analysis and regression analysis.

(12) Significant figures. Risk assessment results shall be presented using one significant figure.

[Statutory Authority: Chapter 70.105D RCW. 91-04-019, § 173-340-708, filed 1/28/91, effective 2/28/91.]

WAC 173-340-710 Applicable state and federal laws. (1) Applicable state and federal laws.

(a) All cleanup actions conducted under this chapter shall comply with applicable state and federal laws. For purposes of this chapter, the term "applicable state and federal laws" shall include legally applicable requirements and those requirements that the department determines, based on consideration of the criteria in subsection (3) of this section, are relevant and appropriate requirements.

(b) The person conducting a cleanup action shall identify all applicable state and federal laws. The department shall make the final interpretation on whether these requirements have been correctly identified and are legally applicable or relevant and appropriate.

(2) Legally applicable requirements. Legally applicable requirements include those cleanup standards, standards of control, and other environmental protection requirements, criteria, or limitations promulgated under state or federal law that specifically address a hazardous substance, cleanup action, location or other circumstances at the site.

(3) Relevant and appropriate requirements. Relevant and appropriate requirements include those cleanup standards, standards of control, and other environmental requirements, criteria, or limitations established under state or federal law that, while not legally applicable to the hazardous substance, cleanup action, location, or other circumstance at a site, address problems or situations sufficiently similar to those encountered at the site that their use is well suited to the particular site. WAC 173-340-710 through 173-340-760 identifies several requirements the department shall consider relevant and appropriate for establishing cleanup standards. For other regulatory requirements, the following criteria shall be evaluated, where pertinent, to determine whether such requirements are relevant and appropriate for a particular hazardous substance, remedial action, or site:

(a) Whether the purpose for which the statute or regulations under which the requirement was created is similar to the purpose of the cleanup action;

(b) Whether the media regulated or affected by the requirement is similar to the media contaminated or affected at the site;

(c) Whether the hazardous substance regulated by the requirement is similar to the hazardous substance found at the site;

(d) Whether the entities or interests affected or protected by the requirement are similar to the entities or interests affected by the site;

(e) Whether the actions or activities regulated by the requirement are similar to the cleanup action contemplated at the site;

(f) Whether any variance, waiver, or exemption to the requirements are available for the circumstances of the site;

(g) Whether the type of place regulated is similar to the site;

(h) Whether the type and size of structure or site regulated is similar to the type and size of structure or site affected by the release or contemplated by the cleanup action; and

(i) Whether any consideration of use or potential use of affected resources in the requirement is similar to the use or potential use of the resources affected by the site or contemplated cleanup action.

(4) Variances. For purposes of this chapter, a regulatory variance or waiver provision included in an applicable state and federal law shall be considered potentially applicable to interim actions and cleanup actions and the department may determine that a particular regulatory variance or waiver is appropriate if the substantive conditions for such a regulatory variance or waiver are met. In all such cases, interim actions and cleanup actions shall be protective of human health and the environment.

(5) New requirements. The department shall consider new applicable state and federal laws as part of the periodic review under WAC 173-340-420. Cleanup actions shall be evaluated in light of these new requirements to determine whether the cleanup action is still protective of human health and the environment.

(6) Selection of cleanup actions. To demonstrate compliance with WAC 173-340-360, cleanup actions shall comply with all applicable state and federal laws in addition to the other requirements of this chapter. The following, which is not a complete list, are selected applications of specific applicable state and federal laws to cleanup actions.

(a) Water discharge requirements. Hazardous substances which are directly or indirectly released or proposed to be released to waters of the state shall be provided with all known, available and reasonable methods of treatment consistent with the requirements of chapters 90.48 and 90.54 RCW and the regulations that implement those statutes.

(b) Air emission requirements. Best available control technologies consistent with the requirements of chapter 70.94 RCW and the regulations that implement this statute shall be applied to releases of hazardous substances to the air resulting from cleanup actions at a site.

(c) Solid waste landfill closure requirements. For solid waste landfills, the solid waste closure requirements in chapter 173-304 WAC shall be minimum requirements for cleanup actions conducted under this chapter. In addition, when the department determines that the closure requirements in chapter 173-303 WAC are applicable requirements, the more stringent closure requirements under that law shall also apply to cleanup actions conducted under this chapter.

(d) Sediment management requirements. Sediment cleanup actions conducted under this chapter shall comply with the sediment cleanup standards in chapter 173-204 WAC. In addition, a state remedial investigation/feasibility study conducted under WAC 173-340-350

shall also comply with the cleanup study plan requirements under chapter 173-204 WAC. The process for selecting sediment cleanup actions under this chapter shall comply with the requirements in WAC 173-340-360.

(7) Interim actions. Interim actions conducted under this chapter shall comply with legally applicable requirements. The department may also determine, based on the criteria in subsection (3) of this section, that other requirements, criteria, or limitations are relevant and appropriate for interim actions.

[Statutory Authority: Chapter 70.105D RCW. 91-04-019, § 173-340-710, filed 1/28/91, effective 2/28/91.]

WAC 173-340-720 Ground water cleanup standards. (1) General considerations.

(a) Ground water cleanup levels shall be based on estimates of the highest beneficial use and the reasonable maximum exposure expected to occur under both current and potential future site use conditions. The department has determined that for most sites drinking water is the beneficial use requiring the highest quality of ground water and that exposure to hazardous substances via ingestion of drinking water and other domestic uses represents the reasonable maximum exposure. In the event of a release of a hazardous substance, treatment, removal, or containment measures shall be conducted to reduce the concentration of the hazardous substance in ground water to a concentration consistent with this use unless the following can be demonstrated:

(i) The ground water does not serve as a current source of drinking water;

(ii) The ground water is not a potential future source of drinking water for any of the following reasons:

(A) The ground water is present in insufficient quantity to yield greater than 0.5 gallon per minute on a sustainable basis to a well constructed in compliance with chapter 173-160 WAC and in accordance with normal domestic water well construction practices for the area in which the site is located;

(B) The ground water contains natural background concentrations of organic or inorganic constituents which make use of the water for drinking not practicable. Ground water containing total dissolved solids at concentrations greater than 10,000 mg/l shall normally be considered to have fulfilled this requirement; or

(C) The ground water is situated at a great depth or location which makes recovery of water for drinking water purposes technically impossible; and

(iii) The department determines it is unlikely that hazardous substances will be transported from the contaminated ground water to ground water that is a current or potential future source of drinking water, as defined in (a)(ii) of this subsection, at concentrations which exceed ground water quality criteria published in chapter 173-200 WAC; or

(iv) More stringent concentrations are necessary to protect human health or the environment.

(b) In making a determination under (a)(iii) of this subsection, the department shall consider site-specific factors including:

(i) The extent of affected ground water;

(ii) The distance to existing water supply wells;

(iii) The likelihood of interconnection due to well construction practices in the area of the state where the site is located;

(iv) The physical and chemical characteristics of the hazardous substance;

(v) The hydrogeologic characteristics of the site;

(vi) The presence of discontinuities in the affected geologic stratum; and

(vii) The degree of confidence in any predictive modeling performed.

(c) The department recognizes that there may be sites where there is an extremely low probability that ground water classified as potential future source of drinking water under (b) of this subsection will actually be used for that purpose (i.e., the shallow ground waters on Harbor Island). At such sites, the department may approve ground water cleanup levels that are based on protecting beneficial uses of adjacent surface water if the person undertaking the cleanup action can demonstrate all of the following:

(i) There are known or projected points of entry of the ground water into the surface water;

(ii) The surface water is not classified as a suitable domestic water supply source under chapter 173-201 WAC;

(iii) Ground water flows into surface waters will result in no exceedances of surface water cleanup levels at the point of entry or at any downstream location where it is reasonable to believe that hazardous substances may accumulate;

(iv) The cleanup action includes institutional controls that will prevent the use of contaminated ground water at any point between the source of hazardous substances and the point(s) of entry of the ground water into the surface water; and

(v) The department determines it is unlikely that hazardous substances will be transported from the contaminated ground water to ground water that is a current or potential future source of drinking water, as defined in (b) of this subsection, at concentrations which exceed ground water quality criteria published in chapter 173-200 WAC.

(d) Where more stringent cleanup levels are necessary to protect beneficial uses of ground water other than drinking water, the cleanup level shall be established by the department under methods B or C as appropriate.

(e) Releases of hazardous substances to ground waters of the state shall not directly or indirectly cause violations of surface water, sediments, soil, or air cleanup standards established under this chapter or other applicable state and federal laws.

(2) Method A cleanup levels.

(a) Where the ground water is a current or potential future source of drinking water, method A cleanup levels shall be at least as stringent as all of the following:

(i) Concentrations listed in Table 1:

Table 1
Method A Cleanup Levels – Ground Water^a

Hazardous Substance	CAS Number	Cleanup Level
Arsenic	7440-38-2	5.0 ug/liter ^b
Benzene	71-43-2	5.0 ug/liter ^c
Cadmium	7440-43-9	5.0 ug/liter ^d
Chromium (Total)	7440-47-3	50.0 ug/liter ^e
DDT	50-29-3	0.1 ug/liter ^f
1,2 Dichloroethane	107-06-2	5.0 ug/liter ^g
Ethylbenzene	100-41-4	30.0 ug/liter ^h
Ethylene dibromide	106-93-4	0.01 ug/liter ⁱ
Gross Alpha Particle Activity		15.0 pCi/liter ^j
Gross Beta Particle Activity		4.0 mrem/yr ^k
Lead	7439-92-1	5.0 ug/liter ^l
Lindane	58-89-9	0.2 ug/liter ^m
Methylene chloride	75-09-2	5.0 ug/liter ⁿ
Mercury	7439-97-6	2.0 ug/liter ^o
PAHs (carcinogenic)		0.1 ug/liter ^p
PCB mixtures		0.1 ug/liter ^q
Radium 226 and 228		5.0 pCi/liter ^r
Radium 226		3.0 pCi/liter ^s
Tetrachloroethylene	127-18-4	5.0 ug/liter ^t
Toluene	108-88-3	40.0 ug/liter ^u
Total Petroleum Hydrocarbons		1000.0 ug/liter ^v
1,1,1 Trichloroethane	71-55-6	200.0 ug/liter ^w
Trichloroethylene	79-01-5	5.0 ug/liter ^x
Vinyl chloride	75-01-4	0.2 ug/liter ^y
Xylenes	1330-20-7	20.0 ug/liter ^z

^a Caution on misusing method A tables. Method A tables have been developed for specific purposes. They are intended to provide conservative cleanup levels for sites undergoing routine cleanup actions or those sites with relatively few hazardous substances. The tables may not be appropriate for defining cleanup levels at other sites. For these reasons, the values in these tables should not automatically be used to define cleanup levels that must be met for financial, real estate, insurance coverage or placement, or similar transactions or purposes. Exceedances of the values in these tables do not necessarily trigger requirements for cleanup action under this chapter.

^b Arsenic. Cleanup level based on background concentrations for state of Washington.

^c Benzene. Cleanup level based on applicable state and federal law.

^d Cadmium. Cleanup level based on applicable state and federal law and concentration derived using procedures in subsection (3)(a)(ii)(A) of this section and a hazard quotient of 0.2.

^e Chromium (Total). Cleanup level based on applicable state and federal law.

^f DDT. Cleanup levels based on concentration derived using procedures in subsection (3)(a)(ii)(B) of this section.

^g 1,2 Dichloroethane. Cleanup level based on applicable state and federal law.

^h Ethylbenzene. Cleanup level based on applicable state and federal law and prevention of adverse aesthetic characteristics.

ⁱ Ethylene dibromide. Cleanup level based on concentration derived using procedures in subsection (3)(a)(ii)(B) of this section and modified based on analytical considerations.

^j Gross Alpha Particle Activity, excluding uranium. Cleanup level based on applicable state and federal law.

^k Gross Beta Particle Activity, including gamma activity. Cleanup level based on applicable state and federal law.

^l Lead. Cleanup level based on applicable state and federal law and prevention of unacceptable blood lead levels.

^m Lindane. Cleanup level based on concentration derived using procedures in subsection (3)(a)(ii)(B) of this section.

ⁿ Methylene chloride. Cleanup level based on concentration derived using procedures in subsection (3)(a)(ii)(B) of this section.

^o Mercury. Cleanup level based on applicable state and federal law.

^p PAHs (carcinogenic). Cleanup level based on concentration derived using procedures in subsection (3)(a)(ii)(B) of this section and modified based on analytical considerations.

^q PCB mixtures. Cleanup level based on concentration derived using procedures in subsection (3)(a)(ii)(B) of this section and modified based on analytical considerations.

^r Radium 226 and 228. Cleanup level based on applicable state and federal law.

^s Radium 226. Cleanup level based on applicable state and federal law.

^t Tetrachloroethylene. Cleanup level based on applicable state and federal law.

^u Toluene. Cleanup level based on applicable state and federal law and prevention of adverse aesthetic characteristics.

^v Total Petroleum Hydrocarbons. Cleanup level based on prevention of adverse aesthetic characteristics.

^w 1,1,1 Trichloroethane. Cleanup level based on applicable state and federal law.

^x Trichloroethylene. Cleanup level based on applicable state and federal law.

^y Vinyl chloride. Cleanup level based on concentration derived using procedures in subsection (3)(a)(ii)(B) of this section and modified based on analytical considerations.

^z Xylenes. Cleanup level based on applicable state and federal law and prevention of adverse aesthetic characteristics; and

(ii) Concentrations established under applicable state and federal laws, including the following requirements:

(A) Maximum contaminant levels established under the Safe Drinking Water Act and published in 40 C.F.R. 141, as amended;

(B) Maximum contaminant level goals for noncarcinogens established under the Safe Drinking Water Act and published in 40 C.F.R. 141, as amended;

(C) Secondary maximum contaminant levels established under the Safe Drinking Water Act and published in 40 C.F.R. 143, as amended; and

(D) Maximum contaminant levels established by the state board of health and published in chapter 248-54 WAC, as amended.

(b) The department may establish method A cleanup levels more stringent than those required by (a) of this subsection when, based upon site-specific evaluations, the department determines that such levels are necessary to protect human health and the environment.

(c) Cleanup levels to protect beneficial uses of ground water other than drinking water shall be established by the department under methods B or C, as appropriate.

(3) Method B cleanup levels.

(a) Where the ground water is a current or potential future source of drinking water, method B cleanup levels shall be at least as stringent as all of the following:

(i) Concentrations established under applicable state and federal laws, including the requirements in subsection (2)(a)(ii) of this section;

(ii) For hazardous substances for which sufficiently protective, health-based criteria or standards have not been established under applicable state and federal laws, those concentrations which protect human health as determined by the following methods:

(A) Concentrations which are estimated to result in no acute or chronic toxic effects on human health as determined using the following equation and standard exposure assumptions:

$$\text{Ground water cleanup level} = \frac{\text{RFD} \times \text{ABW} \times \text{UCF} \times \text{HQ}}{\text{DWIR} \times \text{INH}}$$

(ug/l)

Where:

RFD = Reference Dose as specified in WAC 173-340-708(7) (mg/kg-day)

ABW = Average body weight during the period of exposure (16 kg)

UCF = Unit conversion factor (1,000 ug/mg)
 HQ = Hazard quotient (1)
 DWIR = Drinking water ingestion rate (1.0 liter/day)
 INH = Inhalation correction factor as defined in WAC 173-340-720(7);

(B) For known or suspected carcinogens, concentrations for which the upper bound on the estimated excess cancer risk is less than or equal to 1 in 1,000,000 as determined using the following equation and standard exposure assumptions:

$$\text{Ground water cleanup level (ug/l)} = \frac{\text{RISK} \times \text{ABW} \times \text{LIFE} \times \text{UCF}}{\text{CPF} \times \text{DWIR} \times \text{DUR} \times \text{INH}}$$

Where:

RISK = Acceptable cancer risk level (1 in 1,000,000)
 ABW = Average body weight during the period of exposure (70 kg)
 LIFE = Lifetime (75 years)
 UCF = Unit conversion factor (1,000 ug/mg)
 CPF = Carcinogenic potency factor as specified in WAC 173-340-708(8) (kg-day/mg)
 DWIR = Drinking water ingestion rate (2.0 liters/day)
 DUR = Duration of exposure (30 years)
 INH = Inhalation correction factor as defined in WAC 173-340-720(7);

(b) The department may establish method B cleanup levels that are more stringent than those required by subsection (3)(a) of this section, when, based on site-specific evaluations, the department determines such levels are necessary to protect human health and the environment. This may include the following:

(i) Concentrations which are necessary to protect sensitive sub-groups;

(ii) Concentrations which eliminate or minimize the potential for food chain contamination;

(iii) Concentrations which eliminate or minimize the potential for damage to soils or biota in the soils which could impair the use of the soil for agricultural or silvicultural purposes;

(iv) Concentrations which eliminate or minimize the potential for the accumulation of vapors in buildings or other structures to concentrations which pose a threat to human health or the environment; and

(v) Concentrations which protect nearby surface waters. In general, these will be based on attaining surface water cleanup levels in the surface water as close as technically possible to the point or points where the ground water flows into the surface water.

(c) Method B cleanup levels to protect beneficial uses of ground water other than drinking water shall be established by the department on a case-by-case basis.

(4) Method C cleanup levels.

(a) Method C cleanup levels may be approved by the department if the person undertaking the cleanup action can demonstrate that such levels are consistent with applicable state and federal laws, that all practicable methods of treatment have been utilized, that institutional controls are implemented in accordance with WAC 173-340-440, and that one or more of the conditions in WAC 173-340-706(1) exist.

(b) Where the ground water is a current or potential future source of drinking water as defined in subsection (1)(a) of this section, method C cleanup levels for

ground water shall be at least as stringent as all of the following:

(i) Concentrations established under applicable state and federal laws, including the requirements in subsection (2)(a)(ii) of this section;

(ii) For hazardous substances for which sufficiently protective, health-based standards or criteria have not been established under applicable state and federal laws, those concentrations that protect human health as determined using the following methods:

(A) Concentrations which are estimated to result in no significant acute or chronic toxic effects on human health and are estimated in accordance with WAC 173-340-720 (3)(a)(ii)(A) except that the average body weight shall be 70 kg and the drinking water intake rate shall be 2 liters/day;

(B) Concentrations for which the upper bound on the estimated excess cancer risk is less than or equal to 1 in 100,000 and are estimated in accordance with WAC 173-340-720 (3)(a)(ii)(B);

(c) The department may establish method C cleanup levels that are more stringent than those required by (b) of this subsection when, based on a site-specific evaluation, the department determines such levels are necessary to protect human health and the environment. This may include consideration of those factors listed in subsection (3)(b) of this section.

(d) Method C cleanup levels that protect beneficial uses of ground water other than drinking water shall be established by the department on a case-by-case basis.

(5) Multiple hazardous substances/multiple pathways of exposure.

(a) Ground water cleanup levels for individual hazardous substances developed in accordance with subsections (3) and (4) of this section, including those based on applicable state and federal laws, shall be adjusted downward to take into account exposure to multiple hazardous substances and/or exposure resulting from more than one pathway of exposure. These adjustments shall be made in accordance with the procedures in WAC 173-340-708 (5) and (6). In making these adjustments, the hazard index shall not exceed one and the total excess cancer risk shall not exceed one in one hundred thousand.

(b) The overall limits on the hazard index and total excess cancer risk shall also apply to sites where there is exposure to a single hazardous substance by one exposure pathway, including cleanup levels based on applicable state and federal laws.

(6) Point of compliance.

(a) For ground water, the point of compliance is the point or points where the ground water cleanup levels established under subsections (2), (3), (4), and (5) of this section must be attained. Ground water cleanup levels shall be attained in all ground waters from the point of compliance to the outer boundary of the hazardous substance plume.

(b) The point of compliance shall be established throughout the site from the uppermost level of the saturated zone extending vertically to the lowest most depth which could potentially be affected by the site.

(c) Where hazardous substances remain on-site as part of the cleanup action, the department may approve a conditional point of compliance which shall be as close as practicable to the source of hazardous substances, not to exceed the property boundary. Where a conditional point of compliance is proposed, the person responsible for undertaking the cleanup action shall demonstrate that all practicable methods of treatment are to be utilized in the site cleanup.

(d) At sites where the affected ground water flows into nearby surface water, the cleanup level may be based on protection of the surface water. At these sites, the department may approve a conditional point of compliance that is located within the surface water as close as technically possible to the point or points where ground water flows into the surface water. Conditional points of compliance may be approved only if the following requirements are met:

(i) Use of a dilution zone under WAC 173-201-035 to demonstrate compliance with surface water cleanup levels shall not be allowed;

(ii) Ground water discharges shall be provided with all known available and reasonable methods of treatment prior to release into surface waters;

(iii) Ground water discharges shall not result in violations of sediment quality values published in chapter 173-204 WAC; and

(iv) Ground water monitoring shall be performed to estimate contaminant flux rates and to address potential bioaccumulation problems resulting from surface water concentrations below method detection limits.

(7) Inhalation correction factors.

(a) The inhalation correction factor is an adjustment factor which takes into account exposure to hazardous substances which are volatilized and inhaled during showering and other domestic activities. When available, hazardous substance-specific information shall be used to estimate these values.

(b) Where hazardous substance-specific information is not available, inhalation correction factors shall be one of the following:

(i) For volatile organic hazardous substances, 2; or

(ii) Other hazardous substances, 1.

(c) Where separate toxicity factors (reference doses and carcinogenic potency factors) are available for inhalation and oral exposures, the health hazards associated with the inhalation of hazardous substances in ground water during showering and other domestic activities may be evaluated separately from the health hazards associated with ingestion of drinking water. In these cases, the ground water cleanup level based on ingestion of drinking water shall be modified to take into account multiple exposure pathways in accordance with WAC 173-340-708(6).

(8) Compliance monitoring.

(a) Compliance with ground water cleanup levels shall be determined by analyses of unfiltered ground water samples, unless it can be demonstrated that a filtered sample provides a more representative measure of ground water quality. Ecology expects that filtering will generally be acceptable for inorganic substances where:

(i) A properly constructed monitoring well cannot be sufficiently developed to provide low turbidity water samples;

(ii) Due to the natural background concentration of hazardous substances in the aquifer material, unfiltered samples would not provide a representative measure of ground water quality; and

(iii) Filtering is performed in the field with all practicable measures taken to avoid exposing the ground water sample to the ambient air prior to filtering.

(iv) Ecology expects that filtering will generally be allowed for hazardous substances such as iron and manganese.

(b) Sampling and analytical procedures shall be defined in a compliance monitoring plan prepared under WAC 173-340-410. The sample design shall provide data which are representative of the site.

(c) The data analysis and evaluation procedures used to evaluate compliance with ground water cleanup levels shall be defined in a compliance monitoring plan prepared under WAC 173-340-410. These procedures shall meet the following general requirements:

(i) Methods of data analysis shall be consistent with the sampling design;

(ii) When cleanup levels are based on requirements specified in applicable state and federal laws, the procedures for evaluating compliance that are specified in those requirements shall be utilized to evaluate compliance with cleanup levels unless those procedures conflict with the intent of this section;

(iii) Where procedures for evaluating compliance are not specified in an applicable state and federal law, statistical methods used shall be appropriate for the distribution of sampling data for each hazardous substance. If the distribution of sampling data for a hazardous substance is inappropriate for statistical methods based on a normal distribution, then the data may be transformed. If the distributions for hazardous substances differ, more than one statistical method may be required;

(iv) Compliance with ground water cleanup levels shall be determined for each ground water monitoring well or other monitoring points such as a spring;

(v) The data analysis procedures identified in the compliance monitoring plan shall specify the statistical parameters to be used to determine compliance with ground water cleanup levels.

(A) For clean levels based on short-term or acute toxic effects on human health or the environment, an upper percentile concentration shall be used to evaluate compliance with ground water cleanup levels.

(B) For cleanup levels based on chronic or carcinogenic threats, the mean concentration shall be used to evaluate compliance with ground water cleanup levels unless there are large variations in concentrations relative to the mean concentration or a large percentage of concentrations below the detection limit;

(vi) When active ground water restoration is performed, or containment technologies are used that incorporate active pumping of ground water, compliance with ground water cleanup levels shall be determined

when the ground water characteristics at the site are no longer influenced by the cleanup action.

(d) Appropriate statistical methods include the following:

(i) A procedure in which a confidence interval for each hazardous substance is established from ground water sampling data and the ground water cleanup level is compared to the upper confidence interval; and

(ii) A parametric test for percentiles based on tolerance intervals to test the proportion of ground water samples having concentrations less than the ground water cleanup level; or

(iii) Other statistical methods approved by the department.

(e) If a confidence interval approach is used to evaluate compliance with a ground water cleanup level, the decision rule is a one-tailed test of the null hypothesis that the true ground water concentration exceeds the ground water cleanup level. Compliance with a ground water cleanup level shall be determined using the following criteria:

(i) The upper confidence limit on the true ground water concentration shall be less than the ground water cleanup level. Statistical tests shall be performed at a Type I error level of 0.05;

(ii) No single sample concentration shall be greater than two times the ground water cleanup level; and

(iii) Less than ten percent of the sample concentrations shall exceed the ground water cleanup level during a representative sampling period.

(f) If a method to test the proportion of ground water samples is used to evaluate compliance with a ground water cleanup level, compliance shall be determined using the following criteria:

(i) The true proportion of samples that exceed the ground water cleanup level shall be less than fifty percent. Statistical tests shall be performed with a type I error level of 0.05; and

(ii) No single sample concentration shall be greater than two times the ground water cleanup level; and

(iii) Less than ten percent of the sample concentrations shall exceed the ground water cleanup level during a representative sampling period.

(g) For purposes of demonstrating compliance with ground water cleanup levels, measurements below the method detection limit shall be assigned a value equal to one-half the method detection limit. Measurement above the method detection limit but below the practical quantitation limit shall be assigned a value equal to the method detection limit. The department may approve alternate statistical procedures for handling nondetected values or values below the practical quantitation limit. Alternate procedures may include probit analysis and regression analysis.

[Statutory Authority: Chapter 70.105D RCW. 91-04-019, § 173-340-720, filed 1/28/91, effective 2/28/91.]

WAC 173-340-730 Surface water cleanup standards. (1) General considerations.

(a) Surface water cleanup levels shall be based on estimates of the highest beneficial use and the reasonable

maximum exposure expected to occur under both current and potential future site use conditions. The classification and the highest beneficial use of a surface water body shall be determined in accordance with chapter 173-201 WAC, as amended. In the event of a release of a hazardous substance, treatment, removal, or containment measures shall be conducted to reduce the level of hazardous substances in surface water to concentrations consistent with uses specified under this section and chapter 173-201 WAC, as amended.

(b) Surface water cleanup levels established under this section apply to those surface waters of the state affected or potentially affected by releases of hazardous substances from sites addressed under this chapter. Ecology does not expect that cleanup standards will be applied to storm water runoff that is in the process of being conveyed to a treatment system.

(c) Releases of hazardous substances to surface waters of the state shall not directly or indirectly cause violations of groundwater, soil, sediment, or air cleanup standards established under this chapter or other applicable state and federal laws.

(2) Method A cleanup levels.

(a) Method A cleanup levels shall be at least as stringent as concentrations established under applicable state and federal laws, including the following requirements:

(i) All water quality criteria published in the water quality standards for surface waters of the state of Washington, chapter 173-201 WAC, as amended;

(ii) Water quality criteria based on the protection of aquatic organisms (acute and chronic criteria) and human health published pursuant to section 304 of the Clean Water Act.

(b) The department may establish method A cleanup levels that are more stringent than those required under subsection (2)(a) of this section, when, based on site-specific evaluations, the department determines that such levels are necessary to protect human health and the environment.

(3) Method B cleanup levels.

(a) Method B cleanup levels for surface waters shall be at least as stringent as all of the following:

(i) Concentrations established under applicable state and federal laws, including the following requirements:

(A) All water quality criteria published in the water quality standards for surface waters of the state of Washington, chapter 173-201 WAC, as amended; and

(B) Water quality criteria based on the protection of aquatic organisms (acute and chronic criteria) and human health published pursuant to section 304 of the Clean Water Act unless it can be demonstrated that such criteria are not relevant and appropriate for a specific surface water body or hazardous substance.

(ii) Concentrations which are estimated to result in no adverse effects on the protection and propagation of wildlife, fish, and other aquatic life;

(iii) For hazardous substances for which sufficiently protective, health-based criteria or standards have not been established under applicable state and federal laws, those concentrations which protect human health as determined by the following methods:

(A) For surface waters which support or have the potential to support fish or shellfish populations, concentrations which are anticipated to result in no acute or chronic toxic effects on human health as determined using the following equations and standard exposure assumptions:

$$\text{Surface water cleanup level} = \frac{\text{RFD} \times \text{ABW} \times \text{UCF1} \times \text{UCF2} \times \text{HQ}}{(\text{ug/l}) \quad \text{BCF} \times \text{FCR} \times \text{FDF}}$$

Where:

- RFD = Reference Dose as specified in WAC 173-340-708(7) (mg/kg-day)
- ABW = Average body weight during the exposure period (70 kg)
- UCF1 = Unit conversion factor (1,000 ug/mg)
- UCF2 = Unit conversion factor (1,000 grams/liter)
- BCF = Fish bioconcentration factor as defined in WAC 173-340-708(9) (unitless)
- FCR = Fish consumption rate (54 grams/day)
- FDF = Diet fraction (0.5)
- HQ = Hazard Index (1)

(B) For surface waters which support fish or shellfish populations, concentrations which are anticipated to result in an excess cancer risk less than or equal to 1 in 1,000,000 as determined using the following equation and standard exposure assumptions:

$$\text{Surface water cleanup level} = \frac{\text{RISK} \times \text{ABW} \times \text{LIFE} \times \text{UCF1} \times \text{UCF2}}{(\text{ug/l}) \quad \text{CPF} \times \text{BCF} \times \text{FCR} \times \text{FDF} \times \text{DUR}}$$

Where:

- CPF = Carcinogenic Potency Factor as specified in WAC 173-340-708(8) (kg-day/mg)
- RISK = Acceptable cancer risk level (1 in 1,000,000)
- ABW = Average body weight during the exposure period (70 kg)
- LIFE = Lifetime (75 years)
- UCF1 = Unit conversion factor (1,000 ug/mg)
- UCF2 = Unit conversion factor (1,000 grams/liter)
- BCF = Fish bioconcentration factor as defined in WAC 173-340-708(9) (unitless)
- FCR = Fish consumption rate (54 grams/day)
- FDF = Diet fraction (0.5)
- DUR = Duration of exposure (30 years);

(C) For surface waters which represent a source or potential future source of drinking water, concentrations which are anticipated to result in no adverse impacts on human health as established in accordance with WAC 173-340-720(3).

(b) The department may establish method B cleanup levels more stringent than those required by subsection (3)(a) of this section, when, based on site-specific evaluations, the department determines that such levels are necessary to protect human health and the environment.

(4) Method C cleanup levels.

(a) Method C cleanup levels may be approved by the department if the person undertaking the cleanup action can demonstrate that such levels are consistent with applicable state and federal laws, that all practicable methods of treatment have been utilized, that institutional controls are implemented in accordance with WAC 173-340-440, and that one or more of the conditions in WAC 173-340-706(1) exist.

(b) Method C cleanup levels for surface waters shall be at least as stringent as all of the following:

(i) Concentrations established under applicable state and federal laws, including the requirements identified in subsection (3)(a)(i) of this section;

(ii) Concentrations which are estimated to result in no significant adverse effects on the protection and propagation of wildlife, fish and other aquatic life;

(iii) For hazardous substances for which sufficiently protective, health-based criteria or standards have not been established under applicable state and federal laws, those concentrations which protect human health and the environment as determined by the following methods:

(A) For surface waters which support or have the potential to support fish or shellfish populations, concentrations which are estimated to result in no significant acute or chronic toxic effects on human health or the environment and are estimated in accordance with WAC 173-340-730 (3)(a)(iii)(A) except that the fish diet fraction shall be twenty percent;

(B) For surface waters which support or have the potential to support fish or shellfish populations, concentrations for which the upper bound on the estimated excess cancer risk is less than or equal to 1 in 100,000 and are estimated in accordance with WAC 173-340-730 (3)(a)(iii)(B) except that the fish diet fraction shall be twenty percent;

(C) For surface waters which represent a source or potential future source of drinking water, concentrations which are estimated to result in no adverse impacts on human health and are established in accordance with WAC 173-340-720(4); and

(c) The department may establish method C cleanup levels that are more stringent than those required by (b) of this subsection when, based on site-specific evaluations, the department determines that such levels are necessary to protect human health and the environment.

(5) Multiple hazardous substances/multiple pathways of exposure.

(a) Surface water cleanup levels for individual hazardous substances developed in accordance with subsections (3) and (4) of this section, including those based on applicable state and federal laws, shall be adjusted downward to take into account exposure to multiple hazardous substances and/or exposure resulting from more than one pathway of exposure. These adjustments shall be made in accordance with the procedures specified in WAC 173-340-708 (5) and (6). In making these adjustments, the hazard index shall not exceed one and the total excess cancer risk shall not exceed one in one hundred thousand.

(b) These overall limits on the hazard index and total excess cancer risk shall also apply to sites where there is exposure to a single hazardous substance by one exposure pathway, including cleanup levels based on applicable state and federal laws.

(6) Point of compliance.

(a) The point of compliance shall be the point or points at which hazardous substances are released to surface waters of the state unless the department has authorized a dilution zone in accordance with WAC 173-201-035.

(b) Where hazardous substances are released to the surface water as a result of ground water flows, no dilution zone shall be allowed to demonstrate compliance

with surface water cleanup levels. See WAC 173-340-720 (6)(d) for additional requirements.

(7) Compliance monitoring.

(a) Sampling and analytical procedures shall be defined in a compliance monitoring plan prepared under WAC 173-340-410. The sample design shall provide data which are representative of the site.

(b) The data analysis and evaluation procedures used to evaluate compliance with surface water cleanup levels shall be defined in a compliance monitoring plan prepared under WAC 173-340-410.

(c) Compliance with surface water cleanup standards shall be determined by analyses of unfiltered surface water samples, unless it can be demonstrated that a filtered sample provides a more representative measure of surface water quality.

(d) When surface water cleanup levels are based on requirements specified in applicable state and federal laws, the procedures for evaluating compliance that are specified in those requirements shall be utilized to evaluate compliance with surface water cleanup levels unless these procedures conflict with the intent of this section.

(e) Where procedures for evaluating compliance are not specified in an applicable state and federal law, the statistical methods used to evaluate compliance with surface water cleanup levels shall be appropriate for the distribution of the hazardous substance sampling data. If the distribution of the hazardous substance sampling data is inappropriate for statistical methods based on a normal distribution, then the data may be transformed. If the distributions of individual hazardous substances differ, more than one statistical method may be required.

(f) For purposes of demonstrating compliance, measurements below the method detection limit shall be assigned a value equal to one-half of the method detection limit. Measurements above the method detection limit but below the practical quantitation limit shall generally be assigned a value equal to the method detection limit. The department may approve alternate statistical procedures for handling nondetected values or values below the practical quantitation limit. Alternate statistical procedures may include probit analysis and regression analysis.

(g) Sampling and analysis of fish tissue or shellfish may be required to supplement water column sampling during compliance monitoring.

[Statutory Authority: Chapter 70.105D RCW. 91-04-019, § 173-340-730, filed 1/28/91, effective 2/28/91.]

WAC 173-340-740 Soil cleanup standards. (1) General considerations.

(a) Soil cleanup levels shall be based on estimates of the reasonable maximum exposure expected to occur under both current and future site use conditions. The department has determined that residential site use is generally the site use requiring the most protective cleanup levels and that exposure to hazardous substances under residential site use conditions represents the reasonable maximum exposure scenario. In the event of a release of a hazardous substance, treatment, removal,

and/or containment measures shall be implemented for those soils with hazardous substance concentrations which exceed cleanup levels based on this use unless the following can be demonstrated:

(i) The site does not serve as a current residential area;

(ii) The site does not have the potential to serve as a future residential area based on the consideration of site zoning, statutory and regulatory restrictions, comprehensive plans, historical site use, adjacent land uses, and other relevant factors; and

(iii) Appropriate site use restrictions are implemented at the site; or

(iv) More stringent concentrations are necessary to protect human health and the environment.

(b) Soil cleanup levels for qualifying industrial sites may be established in accordance with the requirements in WAC 173-340-745.

(c) For industrial sites not qualifying under WAC 173-340-745 and commercial sites, the presumption is that soil cleanup levels will be established in accordance with residential areas unless it can be clearly demonstrated that this is inappropriate.

(i) For a site to qualify under this subsection, it must be clearly demonstrated that:

(A) The site is currently zoned for or otherwise officially designated for industrial/commercial use;

(B) The site is currently used for industrial/commercial purposes or has a history of use for industrial/commercial purposes;

(C) Properties adjacent to and in the general vicinity of the site are used or are designated for use for industrial/commercial purposes; and

(D) The site is expected to be used for industrial/commercial purposes for the foreseeable future due to site zoning, statutory or regulatory restrictions, comprehensive plans, adjacent land use, and other relevant factors.

(ii) For industrial/commercial sites qualifying under this subsection, soil cleanup levels shall be established as close as practicable to the method B soil cleanup levels established under subsection (3) of this section and shall be at least as stringent as the method C soil cleanup levels established under subsection (4) of this section. The overall limits on hazard index and total excess cancer risk specified in subsections (3) through (5) of this section shall apply to these sites.

(iii) Institutional controls under WAC 173-340-440 shall be required for industrial/commercial sites qualifying under this subsection where soil cleanup levels are less stringent than method B soil cleanup levels established under subsection (3) of this section.

(iv) The department expects that only industrial/commercial sites located in the interior portion of a large industrial/commercial area will qualify for other than method A or method B cleanup levels under this subsection.

(d) Soil cleanup levels for other nonresidential site uses such as recreational or agricultural uses shall be established on a case-by-case basis. The overall limits on the hazard index and cancer risk specified in subsections

(3) through (5) of this section shall apply to these types of sites. Cleanup levels for these types of sites shall be at least as stringent as method C cleanup levels established under subsection (4) of this section.

(e) Soil cleanup levels shall be established at concentrations which do not directly or indirectly cause violations of ground water, surface water, sediment, or air cleanup standards established under this chapter or applicable state and federal laws.

(2) Method A cleanup levels.

(a) Method A cleanup levels shall be at least as stringent as all of the following:

(i) Concentrations in the following table; and

Table 2
Method A Cleanup Levels – Soil^a

Hazardous Substance	CAS Number	Cleanup Level
Arsenic	7440-38-2	20.0 mg/kg ^b
Benzene	71-43-2	0.5 mg/kg ^c
Cadmium	7440-43-9	2.0 mg/kg ^d
Chromium	7440-47-3	100.0 mg/kg ^e
DDT	50-29-3	1.0 mg/kg ^f
Ethylbenzene	100-41-4	20.0 mg/kg ^g
Ethylene dibromide	106-93-4	0.001 mg/kg ^h
Lead	7439-92-1	250.0 mg/kg ⁱ
Lindane	58-89-9	1.0 mg/kg ^j
Methylene chloride	75-09-2	0.5 mg/kg ^k
Mercury (inorganic)	7439-97-6	1.0 mg/kg ^l
PAHs (carcinogenic)		1.0 mg/kg ^m
PCB Mixtures		1.0 mg/kg ⁿ
Tetrachloroethylene	127-18-4	0.5 mg/kg ^o
Toluene	108-88-3	40.0 mg/kg ^p
TPH (gasoline)		100.0 mg/kg ^q
TPH (diesel)		200.0 mg/kg ^r
TPH (other)		200.0 mg/kg ^s
1,1,1 Trichloroethane	71-55-6	20.0 mg/kg ^t
Trichloroethylene	79-01-5	0.5 mg/kg ^u
Xylenes	1330-20-7	20.0 mg/kg ^v

^a Caution on misusing method A tables. Method A tables have been developed for specific purposes. They are intended to provide conservative cleanup levels for sites undergoing routine cleanup actions or those sites with relatively few hazardous substances. The tables may not be appropriate for defining cleanup levels at other sites. For these reasons, the values in these tables should not automatically be used to define cleanup levels that must be met for financial, real estate, insurance coverage or placement, or similar transactions or purposes. Exceedances of the values in these tables do not necessarily trigger requirements for cleanup action under this chapter.

^b Arsenic. Cleanup level based on background concentrations in the state of Washington.

^c Benzene. Cleanup level based on protection of ground water.

^d Cadmium. Cleanup level based on plant protection.

^e Chromium. Cleanup level based on health risks associated with inhalation of resuspended dust.

^f DDT. Cleanup level based on concentrations derived using the procedures in subsection (3)(a)(iii)(B) of this section.

^g Ethylbenzene. Cleanup level based on protection of ground water.

^h Ethylene dibromide. Cleanup level based on protection of ground water.

ⁱ Lead. Cleanup level based on preventing unacceptable blood lead levels.

^j Lindane. Cleanup level based on concentration derived using the procedures in subsection (3)(a)(iii)(B) of this section.

^k Methylene chloride. Cleanup level based on protection of ground water.

^l Mercury. Cleanup level based on protection of ground water.

^m PAHs (carcinogenic). Cleanup level based on concentration derived using the procedures in subsection (3)(a)(iii)(B) of this section.

ⁿ PCB Mixtures. Cleanup level based on concentration derived using the procedures in subsection (3)(a)(iii)(B) of this section.

^o Tetrachloroethylene. Cleanup level based on protection of ground water.

^p Toluene. Cleanup level based on protection of ground water.

^q Total Petroleum Hydrocarbons (gasoline). Cleanup level based on protection of ground water.

^r Total Petroleum Hydrocarbons (diesel). Cleanup level based on protection of ground water.

^s Total Petroleum Hydrocarbons (other). Cleanup level based on protection of ground water.

^t 1,1,1 Trichloroethane. Cleanup level based on protection of ground water.

^u Trichloroethylene. Cleanup level based on protection of ground water.

^v Xylenes. Cleanup level based on protection of ground water.

(ii) Concentrations established under applicable state and federal laws;

(b) The department may establish method A cleanup levels that are more stringent than those required by subsection (2)(a) of this section, when based on a site-specific evaluation, the department determines that such levels are necessary to protect human health or environment.

(3) Method B cleanup levels.

(a) Method B cleanup levels for soils shall be at least as stringent as all of the following:

(i) Concentrations established under applicable state and federal laws;

(ii) Concentrations which will not cause contamination of ground water at levels which exceed method B ground water cleanup levels established under WAC 173-340-720 as determined using the following criteria:

(A) For individual hazardous substances or mixtures, concentrations that are equal to or less than one hundred times the ground water cleanup level established in accordance with WAC 173-340-720 unless it can be demonstrated that a higher soil concentration is protective of ground water at the site;

(B) For total petroleum hydrocarbons, the person undertaking the cleanup may elect to make this demonstration on the basis of data on individual hazardous substances that comprise the total petroleum hydrocarbons.

(iii) For those hazardous substances for which health-based criteria or standards have not been established under applicable state and federal laws, those concentrations which protect human health and the environment as determined by the following methods:

(A) Concentrations which are estimated to result in no acute or chronic toxic effects on human health via direct contact with contaminated soil and are determined using the following equation and standard exposure assumptions:

$$\text{Soil Cleanup Level} = \frac{\text{RFD} \times \text{ABW} \times \text{UCF2} \times \text{HQ}}{(\text{mg/kg}) \quad \text{SIR} \times \text{AB1} \times \text{FOC}}$$

Where:

RFD = Reference Dose as defined in WAC 173-340-708(7) (mg/kg-day)

ABW = Average body weight over the period of exposure (16 kg)

UCF2 = Units conversion factor (1,000,000 mg/kg)

SIR = Soil ingestion rate (200 mg/day)
 ABI = Gastrointestinal absorption rate (1.0)
 FOC = Frequency of contact (1.0)
 HQ = Hazard quotient (1);

(B) Concentrations for which the upper bound on the estimated excess cancer risk is less than or equal to 1 in 1,000,000 via direct contact with contaminated soil and are determined using the following equation and standard exposure assumptions:

$$\text{Soil Cleanup Level} = \frac{\text{RISK} \times \text{ABW} \times \text{LIFE} \times \text{UCF1}}{\text{CPF} \times \text{SIR} \times \text{ABI} \times \text{DUR} \times \text{FOC}}$$

(mg/kg)

Where:

RISK = Acceptable cancer risk level (1 in 1,000,000)
 ABW = Average body weight over the period of exposure (16 kg)
 LIFE = Lifetime (75 years)
 UCF1 = Unit conversion factor (1,000,000 mg/kg)
 CPF = Carcinogenic Potency Factor as defined in WAC 173-340-708(8)
 (kg-day/mg)
 SIR = Soil ingestion rate (200 mg/day)
 ABI = Gastrointestinal absorption rate (1.0)
 DUR = Duration of exposure (6 years)
 FOC = Frequency of contact (1.0);

(iv) To assure that unacceptable risks do not result from inhalation of hazardous substances in or released from contaminated soils, soil concentrations which ensure that releases of hazardous substances shall not result in ambient air concentrations which exceed method B cleanup levels established under WAC 173-340-750.

(b) The department may establish method B cleanup levels that are more stringent than those required under (a) of this subsection, when, based on a site-specific evaluation, the department determines that such levels are necessary to protect human health or environment, including the following:

(i) Concentrations which eliminate or substantially reduce the potential for food chain contamination;

(ii) Concentrations which eliminate or substantially reduce the potential for damage to soils or biota in the soils which could impair the use of soils for agricultural or silvicultural purposes;

(iii) Concentrations which eliminate or substantially reduce the potential for adverse effects on vegetation or wildlife;

(iv) Concentrations more stringent than those in (b) of this subsection where the department determines that such levels are necessary to protect the ground water at a particular site;

(v) Concentrations necessary to protect nearby surface waters from hazardous substances in runoff from the site; and

(vi) Concentrations which eliminate or minimize the potential for the accumulation of vapors in buildings or other structures to concentrations which pose a threat to human health or the environment.

(4) Method C cleanup levels.

(a) Method C cleanup levels may be approved by the department if the person undertaking the cleanup action can demonstrate that such levels are consistent with applicable state and federal laws, that all practicable methods of treatment have been utilized, that institutional controls are implemented in accordance with

WAC 173-340-440, and that one or more of the conditions in WAC 173-340-706(1) exist.

(b) Method C cleanup levels for soils shall be at least as stringent as all of the following:

(i) Concentrations established under applicable state and federal laws;

(ii) Concentrations which will not cause contamination of ground water at levels which exceed ground water cleanup levels established under WAC 173-340-720 as determined using the following procedures:

(A) For individual hazardous substances or mixtures, concentrations that are equal to or less than one hundred times the ground water cleanup level established in accordance with WAC 173-340-720 unless it can be demonstrated that a higher soil concentration is protective of ground water at the site;

(B) For total petroleum hydrocarbons, the person undertaking the cleanup may elect to make this demonstration on the basis of data on individual hazardous substances that comprise the total petroleum hydrocarbons;

(iii) For those hazardous substances for which health-based criteria or standards have not been established under applicable state and federal laws, those concentrations which protect human health and the environment as determined by the following methods:

(A) Concentrations which are anticipated to result in no significant acute or chronic toxic effects on human health and estimated in accordance with WAC 173-340-740 (3)(a)(iii)(A) except that the frequency of contact shall be 0.5, the soil ingestion rate shall be 100 milligrams per day, and the average body weight shall be 16 kilograms;

(B) For known or suspected carcinogens, concentrations for which the upper bound on the estimated excess cancer risk is less than or equal to 1 in 100,000 and are estimated in accordance with WAC 173-340-740 (3)(a)(iii)(B) except that the frequency of contact shall be 0.5 and the soil ingestion rate shall be 100 milligrams per day; and

(iv) To assure that unacceptable risks do not result from inhalation of hazardous substances in or released from contaminated soils, soil concentrations which ensure that releases of hazardous substances shall not result in ambient air concentrations which exceed method C cleanup levels established under WAC 173-340-750.

(b) The department may establish method C cleanup levels that are more stringent than those required by (a) through (c) of this subsection when, based on a site-specific evaluation, the department determines that such levels are necessary to protect human health and the environment, including consideration of those factors listed in subsection (3)(c) of this section.

(5) Multiple hazardous substances/multiple pathways of exposure.

(a) Soil cleanup levels for individual hazardous substances developed in accordance with subsections (3) and (4) of this section, including cleanup levels based on applicable state and federal laws, shall be adjusted downward to take into account exposure to multiple hazardous substances and/or exposure resulting from

more than one pathway of exposure. These adjustments shall be made in accordance with the procedures specified in WAC 173-340-708 (5) and (6).

In making these adjustments, the hazard index shall not exceed one and the total excess cancer risk shall not exceed one in one hundred thousand.

(b) These overall limits on the hazard index and total excess cancer risk shall also apply to sites where there is exposure to a single hazardous substance by one exposure pathway, including cleanup levels based on applicable state and federal laws.

(6) Point of compliance.

(a) The point of compliance is the point or points where the soil cleanup levels established under subsections (2), (3), (4), and (5) of this section shall be attained.

(b) For soil cleanup levels based on the protection of ground water, the point of compliance shall be established in the soils throughout the site.

(c) For soil cleanup levels based on human exposure via direct contact, the point of compliance shall be established in the soils throughout the site from the ground surface to fifteen feet below the ground surface. This represents a reasonable estimate of the depth of soil that could be excavated and distributed at the soil surface as a result of site development activities.

(d) The department recognizes that, for those cleanup actions selected under WAC 173-340-360 that involve containment of hazardous substances, the soil cleanup levels will typically not be met at the points of compliance specified in (b) and (c) of this subsection. In these cases, the cleanup action may be determined to comply with cleanup standards, provided the compliance monitoring program is designed to ensure the long-term integrity of the containment system, and the other requirements for containment technologies in WAC 173-340-360(8) are met.

(7) Compliance monitoring.

(a) Compliance with soil cleanup levels shall be based on total analyses of the soil fraction less than two millimeters in size. When it is reasonable to expect that larger soil particles could be reduced to two millimeters or less during current or future site use and this reduction could cause an increase in the concentrations of hazardous substances in the soil, soil cleanup levels shall also apply to these larger soil particles. Compliance with soil cleanup levels shall be based on dry weight concentrations. The department may approve the use of alternate procedures for stabilized soils.

(b) Sampling and analytical procedures shall be defined in a compliance monitoring plan prepared under WAC 173-340-410. The sample design shall provide data which are representative of the area where exposure to hazardous substances may occur.

(c) The data analysis and evaluation procedures used to evaluate compliance with soil cleanup levels shall be defined in a compliance monitoring plan prepared under WAC 173-340-410. These procedures shall meet the following general requirements:

(i) Methods of data analysis shall be consistent with the sampling design. Separate methods may be specified for surface soils and deeper soils;

(ii) When cleanup levels are based on requirements specified in applicable state and federal laws, the procedures for evaluating compliance that are specified in those requirements shall be utilized to evaluate compliance with cleanup levels unless those procedures conflict with the intent of this section;

(iii) Where procedures for evaluating compliance are not specified in an applicable state and federal law, statistical methods shall be appropriate for the distribution of sampling data for each hazardous substance. If the distribution of sampling data for a hazardous substance is inappropriate for statistical methods based on a normal distribution, then the data may be transformed. If the distributions for hazardous substances differ, more than one statistical method may be required; and

(iv) The data analysis plan shall specify which parameters are to be used to determine compliance with soil cleanup levels.

(A) For cleanup levels based on short-term or acute toxic effects on human health or the environment, an upper percentile soil concentration shall be used to evaluate compliance with cleanup levels.

(B) For cleanup levels based on chronic or carcinogenic threats, the mean soil concentration shall be used to evaluate compliance with cleanup levels unless there are large variations in hazardous substance concentrations relative to the mean hazardous substance concentration or a large percentage of concentrations are below the detection limit.

(d) Appropriate statistical methods include the following:

(i) A procedure in which a confidence interval for each hazardous substance is established from site sampling data and the soil cleanup level is compared to the upper confidence interval;

(ii) A parametric test for percentiles based on tolerance intervals to test the proportion of soil samples having concentrations less than the soil cleanup level; or

(iii) Other statistical methods approved by the department.

(e) If a confidence interval approach is used to evaluate compliance with a soil cleanup level, the decision rule is a one-tailed test of the null hypothesis that the true soil concentration of a hazardous substance exceeds the soil cleanup level. Compliance with soil cleanup levels shall be determined using the following criteria:

(i) The upper confidence interval on the true soil concentration is less than the soil cleanup level. Statistical tests shall be performed at a Type I error level of 0.05;

(ii) No single sample concentration shall be greater than two times the soil cleanup level; and

(iii) Less than ten percent of the sample concentrations shall exceed the soil cleanup level.

(f) If a method to test the proportion of soil samples is used to evaluate compliance with a soil cleanup level, compliance shall be determined using the following criteria:

(i) No single sample concentrations shall be greater than two times the soil cleanup level; and

(ii) Less than ten percent of the sample concentrations shall exceed the soil cleanup level; and

(iii) The true proportion of samples that do not exceed the soil cleanup level shall not be less than ninety percent. Statistical tests shall be performed with a type I error level of 0.05.

(g) For purposes of demonstrating compliance with soil cleanup levels, measurements below the method detection limit shall be assigned a value equal to one-half the method detection limit. Detectable levels below the practical quantitation limit shall be assigned a value equal to the method detection limit. The department may approve alternate statistical procedures for handling nondetected values or values below the practical quantitation limit. Alternate statistical procedures may include probit analysis and regression analysis.

[Statutory Authority: Chapter 70.105D RCW. 91-04-019, § 173-340-740, filed 1/28/91, effective 2/28/91.]

WAC 173-340-745 Soil cleanup standards for industrial sites. (1) General considerations.

(a) This section shall be used to establish soil cleanup levels where the department has determined that industrial site use represents the reasonable maximum exposure.

(b) Cleanup levels shall not be based on industrial site use unless the following can be demonstrated:

(i) The site is zoned or has been otherwise officially designated for industrial use;

(ii) The site is currently used for industrial purposes or has a history of use for industrial purposes;

(iii) Adjacent properties are currently used or designated for use for industrial purposes;

(iv) The site is expected to be used for industrial purposes for the foreseeable future due to site zoning, statutory or regulatory restrictions, comprehensive plans, adjacent land use, and other relevant factors; and

(v) The cleanup action provides for institutional controls implemented in accordance with WAC 173-340-440.

(c) The department expects that only sites located within a limited number of large industrial areas will qualify for industrial soil cleanup levels under this section.

(d) Soil cleanup levels established under this section shall be as close as practicable to cleanup levels established in accordance with WAC 173-340-740, but in no case higher than the concentrations established under subsections (2) through (5) of this section.

(e) Soil cleanup levels for areas beyond the industrial property boundary shall be established in accordance with WAC 173-340-740.

(f) Soil cleanup levels shall be established at concentrations which do not directly or indirectly cause violations of ground water, surface water, or air cleanup standards established under this chapter or under applicable state and federal laws.

(g) See WAC 173-340-740 (1)(c) for establishing cleanup levels at industrial sites not qualifying under this section and at commercial sites.

(2) Method A cleanup levels.

(a) Method A cleanup levels shall be at least as stringent as all of the following:

(i) Concentrations in the following table:

Table 3
Method A Cleanup Levels - Industrial Soil^a

Hazardous Substance	CAS Number	Cleanup Level
Arsenic	7440-38-2	200.0 mg/kg ^b
Benzene	71-43-2	0.5 mg/kg ^c
Cadmium	7440-43-9	10.0 mg/kg ^d
Chromium (Total)	7440-47-3	500.0 mg/kg ^e
DDT	50-29-3	5.0 mg/kg ^f
Ethylbenzene	100-41-4	20.0 mg/kg ^g
Ethylene dibromide	106-93-4	0.001 mg/kg ^h
Lead	7439-92-1	1000.0 mg/kg ⁱ
Lindane	58-89-9	20.0 mg/kg ^j
Methylene chloride	75-09-2	0.5 mg/kg ^k
Mercury (inorganic)	7439-97-6	1.0 mg/kg ^l
PAHs (carcinogenic)		20.0 mg/kg ^m
PCB Mixtures		10.0 mg/kg ⁿ
Tetrachloroethylene	127-18-4	0.5 mg/kg ^o
Toluene	108-88-3	40.0 mg/kg ^p
TPH (gasoline)		100.0 mg/kg ^q
TPH (diesel)		200.0 mg/kg ^r
TPH (other)		200.0 mg/kg ^s
1,1,1 Trichloroethane	71-55-6	20.0 mg/kg ^t
Trichloroethylene	79-01-5	0.5 mg/kg ^u
Xylenes	1330-20-7	20.0 mg/kg ^v

^a Caution on misusing method A tables. Method A tables have been developed for specific purposes. They are intended to provide conservative cleanup levels for sites undergoing routine cleanup actions or those sites with relatively few hazardous substances. The tables may not be appropriate for defining cleanup levels at other sites. For these reasons, the values in these tables should not automatically be used to define cleanup levels that must be met for financial, real estate, insurance coverage or placement, or similar transactions or purposes. Exceedances of the values in these tables do not necessarily trigger requirements for cleanup actions under this chapter.

^b Arsenic. Cleanup level based on concentration derived using the procedures in subsection (4)(a)(iii)(B) of this section.

^c Benzene. Cleanup level based on protection of ground water.

^d Cadmium. Cleanup level based on protection of ground water.

^e Chromium. Cleanup level based on inhalation exposure.

^f DDT. Cleanup level based on protection of ground water.

^g Ethylbenzene. Cleanup level based on protection of ground water.

^h Ethylene dibromide. Cleanup level based on protection of ground water.

ⁱ Lead. Cleanup level based on direct contact.

^j Lindane. Cleanup level based on cleanup level based on concentration derived using the procedures in subsection (4)(a)(iii)(B) of this section.

^k Methylene chloride. Cleanup level based on protection of ground water.

^l Mercury. Cleanup level based on protection of ground water.

^m PAHs (carcinogenic). Cleanup level based on concentration derived using the procedures in subsection (4)(a)(iii)(B) of this section.

ⁿ PCB Mixtures. Cleanup level based on concentration derived using the procedures in subsection (4)(a)(iii)(B) of this section.

^o Tetrachloroethylene. Cleanup level based on protection of ground water.

^p Toluene. Cleanup level based on protection of ground water.

^q Total Petroleum Hydrocarbons (gasoline). Cleanup level based on protection of ground water.

- ^r Total Petroleum Hydrocarbons (diesel). Cleanup level based on protection of ground water.
- ^s Total Petroleum Hydrocarbons (other). Cleanup level based on protection of ground water.
- ^t 1,1,1 Trichloroethane. Cleanup level based on protection of ground water.
- ^u Trichloroethylene. Cleanup level based on protection of ground water.
- ^v Xylenes. Cleanup level based on protection of ground water; and

(ii) Concentrations established under applicable state and federal laws;

(b) The department may establish method A cleanup levels that are more stringent than those required by (a) of this subsection when, based on site-specific evaluations, the department determines that such levels are necessary to protect human health or environment, including consideration of the factors in WAC 173-340-740 (3)(b).

(3) Method B cleanup levels. This section does not provide procedures for establishing method B cleanup levels. Method C is the standard method for establishing soil cleanup levels at industrial sites and its use is conditioned upon the continued use of the site for industrial purposes.

(4) Method C cleanup levels.

(a) Method C cleanup levels for industrial soils shall be at least as stringent as all of the following:

(i) Concentrations established under applicable state and federal laws;

(ii) Concentrations which will not cause contamination of ground water to concentrations which exceed ground water cleanup levels established under WAC 173-340-720 as determined using the following procedures:

(A) For individual hazardous substances or mixtures, concentrations that are equal to or less than one hundred times the ground water cleanup level established in accordance with WAC 173-340-720 unless it can be demonstrated that higher soil concentrations are protective of ground water at the site;

(B) For total petroleum hydrocarbons, the person undertaking the cleanup action may elect to make this demonstration on the basis of data on individual hazardous substances that comprise the total petroleum hydrocarbons;

(iii) For those hazardous substances for which sufficiently protective health-based criteria or standards have not been established under applicable state and federal laws, those concentrations which protect human health and the environment as determined by the following methods:

(A) Concentrations which are anticipated to result in no acute or chronic toxic effects on human health via direct contact with contaminated soil and are determined using the following equation and standard exposure assumptions:

$$\text{Soil Cleanup Level} = \frac{\text{RFD} \times \text{ABW} \times \text{UCF2} \times \text{HQ}}{\text{SIR} \times \text{ABI} \times \text{FOC}}$$

(mg/kg)

Where:

RFD = Reference Dose as specified in WAC 173-340-708(7) (mg/kg-day)

ABW = Average body weight over the period of exposure (70 kg)
 UCF2 = Unit conversion factor (1,000,000 mg/kg)
 SIR = Soil ingestion rate (50 mg/day)
 ABI = Gastrointestinal absorption rate (1.0)
 FOC = Frequency of contact (0.4)
 HQ = Hazard quotient (1);

(B) Concentrations for which the upper bound on the estimated excess cancer risk is less than or equal to 1 in 100,000 via direct contact with contaminated soil and are determined using the following equation and standard exposure assumptions:

$$\text{Soil Cleanup Level} = \frac{\text{RISK} \times \text{ABW} \times \text{LIFE} \times \text{UCF1}}{\text{CPF} \times \text{SIR} \times \text{ABI} \times \text{DUR} \times \text{FOC}}$$

(mg/kg)

Where:

RISK = Acceptable cancer risk level (1 in 100,000)
 ABW = Average body weight over the period of exposure (70 kg)
 LIFE = Lifetime (75 years)
 UCF1 = Units conversion factor (1,000,000 mg/kg)
 CPF = Carcinogenic Potency Factor as specified in WAC 173-340-708(8) (kg-day/mg)
 SIR = Soil ingestion rate (50 mg/day)
 ABI = Gastrointestinal absorption rate (1.0)
 DUR = Duration of exposure (20 years)
 FOC = Frequency of contact (0.4);

(b) The department may establish method C cleanup levels that are more stringent than those required by (a) of this subsection when, based on a site-specific evaluation, the department determines that such levels are necessary to protect human health and the environment.

(5) Multiple hazardous substances/multiple pathways of exposure.

(a) Soil cleanup levels for individual hazardous substances developed in accordance with subsection (4) of this section, including cleanup levels based on state and federal laws, shall be adjusted downward to take into account exposure to multiple hazardous substances and/or exposure resulting from more than one pathway of exposure. These adjustments shall be made in accordance with the procedures specified in WAC 173-340-708 (5) and (6). In making these adjustments, the hazard index shall not exceed one and the total excess cancer risk shall not exceed one in one hundred thousand.

(b) These overall limits on the hazard index and total excess cancer risk shall also apply to sites where there is exposure to a single hazardous substance by one exposure pathway, including cleanup levels based on applicable state and federal laws.

(6) Point of compliance. The point of compliance shall be established in accordance with WAC 173-340-740(6).

(7) Compliance monitoring. Compliance monitoring shall be performed in accordance with WAC 173-340-410 and 173-340-740(7).

[Statutory Authority: Chapter 70.105D RCW. 91-04-019, § 173-340-745, filed 1/28/91, effective 2/28/91.]

WAC 173-340-750 Cleanup standards to protect air quality. (1) General considerations.

(a) Cleanup levels to protect air quality shall be based on estimates of the reasonable maximum exposure expected to occur under both current and future site use

conditions. The department has determined that residential site use will generally require the most protective ambient air cleanup levels and that exposure to hazardous substances under these conditions represents the reasonable maximum exposure. In the event of a release or potential release of hazardous substances into the ambient air, treatment, removal, or containment measures shall be conducted to reduce the levels of hazardous substances in the ambient air to levels consistent with this use unless all of the following can be demonstrated:

- (i) The site does not serve as a current residential area;
- (ii) The site is not likely to become a residential area in the future based on a review of site zoning, statutory or regulatory restrictions, comprehensive plans, historic site use, adjacent land uses, and other relevant factors;
- (iii) Appropriate institutional controls are implemented at the site to prohibit residential use; and
- (iv) Air emissions from the site will not reduce the air quality in adjacent residential areas; or
- (v) More stringent concentrations are necessary to protect human health and the environment.

(b) Ambient air cleanup levels for nonresidential site uses shall be established on a case-by-case basis. The overall limits on the hazard index and total excess cancer risk specified in subsections (3) through (5) of this section shall apply to these sites. Cleanup levels for these types of sites shall be at least as stringent as method C cleanup levels established under subsection (4) of this section.

(c) Ambient air cleanup levels shall be established at concentrations which do not directly or indirectly cause violations of ground water, surface water, or soil cleanup standards established under this chapter or applicable state and federal laws.

(2) Method A cleanup levels.

(a) Method A cleanup levels for ambient air shall be at least as stringent as concentrations established under applicable state and federal laws;

(b) The department may establish method A cleanup levels that are more stringent than those required by (a) of this subsection when, based on a site-specific evaluation, the department determines that such levels are necessary to protect human health and the environment.

(3) Method B cleanup levels.

(a) Method B cleanup levels for ambient air shall be at least as stringent as all of the following:

- (i) Concentrations established under applicable state and federal laws; and
- (ii) For hazardous substances for which sufficiently protective health-based criteria or standards have not been established under applicable state and federal laws, those concentrations which protect human health and the environment as determined by the following methods:

(A) Concentrations which are estimated to result in no acute or chronic toxic effects on human health and are determined using the following equation and standard exposure assumptions:

$$\text{Ambient air cleanup level} = \frac{\text{RFD} \times \text{ABW} \times \text{UCF} \times \text{HQ}}{(\text{ug}/\text{m}^3) \quad \text{BR} \times \text{ABS}}$$

Where:

- RFD = Reference Dose as specified in WAC 173-340-708(7) (mg/kg-day)
- BW = Body weight (16 kg)
- UCF = Units conversion factor (1,000 ug/mg)
- BR = Breathing rate (10 m³/day)
- ABS = Absorption percentage (1.0)
- HQ = Hazard Quotient (1);

(B) For known or suspected carcinogens, concentrations for which the upper bound on the estimated excess cancer risk is less than or equal to 1 in 1,000,000 and are determined using the following equation and standard exposure assumptions:

$$\text{Ambient air cleanup level} = \frac{\text{RISK} \times \text{BW} \times \text{LIFE} \times \text{UCF}}{(\text{ug}/\text{m}^3) \quad \text{CPF} \times \text{BR} \times \text{ABS} \times \text{DUR}}$$

Where:

- RISK = Acceptable cancer risk level (1 in 1,000,000)
- BW = Body weight (70 kg)
- LIFE = Lifetime (75 years)
- UCF = Units conversion factor (1,000 ug/mg)
- CPF = Carcinogenic potency factor as specified in WAC 173-340-708(8) (kg-day/mg)
- BR = Breathing rate (20 m³/day)
- ABS = Absorption percentage (1.0)
- DUR = Duration of exposure (30 years);

(b) The department may establish method B cleanup levels that are more stringent than those required by (a) of this subsection, when, based on a site-specific evaluation, the department determines that such levels are necessary to protect human health and the environment.

(4) Method C cleanup levels.

(a) Method C cleanup levels may be approved by the department if the person undertaking the cleanup action can demonstrate that such levels are consistent with applicable state and federal laws, that best available control technology has been utilized, and that one or more of the conditions in WAC 173-340-707(1) exist.

(b) Method C cleanup levels for ambient air shall be at least as stringent as all of the following:

- (i) Concentrations established under applicable state and federal laws; and
- (ii) For hazardous substances for which sufficiently protective health-based criteria or standards have not been established under applicable state and federal laws, those concentrations which protect human health and the environment as determined by the following methods:

(A) Concentrations which are anticipated to result in no significant acute or chronic effects on human health and are estimated in accordance with WAC 173-340-750 (3)(a)(ii)(A) except that the average body weight shall be 70 kg and the estimated breathing rate shall be 20 m³/day; and

(B) For known or suspected carcinogens, concentrations for which the upper bound on the estimated excess cancer risk is less than or equal to 1 in 100,000 and are determined in accordance with WAC 173-340-750 (3)(a)(ii)(B).

(c) The department may establish method C cleanup levels that are more stringent than those required by (b)

of this subsection, when, based on a site-specific evaluation, the department determines that such levels are necessary to protect human health and the environment.

(5) Multiple hazardous substances/multiple pathways of exposure.

(a) Air cleanup levels for individual hazardous substances developed in accordance with subsections (3) and (4) of this section, including cleanup levels based on applicable state and federal laws, shall be adjusted downward to take into account exposure to multiple hazardous substances and/or exposure resulting from more than one pathway of exposure. These adjustments shall be made in accordance with the procedures in WAC 173-340-708 (5) and (6). In making these adjustments, the hazard index shall not exceed one and the total excess cancer risk shall not exceed one in one hundred thousand.

(b) These overall limits on the hazard index and total excess cancer risk shall also apply to sites where there is exposure to a single hazardous substance by one exposure pathway, including those cleanup levels based on applicable state and federal laws.

(6) Points of compliance. Cleanup levels established under subsections (2), (3), (4), and (5) of this section shall be attained in the ambient air throughout the site. For sites determined to be industrial sites under the criteria in WAC 173-340-745, the department may approve a conditional point of compliance not to exceed the property boundary.

(7) Compliance monitoring.

(a) Sampling and analytical procedures shall be defined in a compliance monitoring plan prepared under WAC 173-340-410. The sample design shall provide data which are representative of the site.

(b) Data analysis and evaluation procedures used to evaluate compliance with ambient air cleanup levels shall be defined in a compliance monitoring plan prepared under WAC 173-340-410.

(c) Averaging times specified in applicable state and federal laws shall be used to demonstrate compliance with those requirements.

(d) When cleanup levels are not based on applicable state and federal laws, the following averaging times shall be used:

(i) Compliance with ambient air cleanup levels for noncarcinogens shall be based on twenty-four-hour time weighted averages except where the cleanup level is based upon an inhalation reference dose which specifies an alternate averaging time;

(ii) Compliance with ambient air cleanup levels for carcinogens shall be based on annual average concentrations.

[Statutory Authority: Chapter 70.105D RCW. 91-04-019, § 173-340-750, filed 1/28/91, effective 2/28/91.]

WAC 173-340-760 Sediment cleanup standards. RESERVED.

[Statutory Authority: Chapter 70.105D RCW. 91-04-019, § 173-340-760, filed 1/28/91, effective 2/28/91.]

[1991 WAC Supp—page 532]

WAC 173-340-830 Analytical procedures. (1) Purpose. This section specifies acceptable analytical methods and other testing requirements for sites where remedial action is being conducted under this chapter.

(2) General requirements.

(a) All hazardous substance analyses shall be conducted by a laboratory accredited under chapter 173-50 WAC, unless otherwise approved by the department.

(b) All analytical procedures used shall be done in accordance with a sampling and analysis plan prepared under WAC 173-340-820.

(c) Tests for which methods have not been specified in this section shall be performed using standard methods or procedures such as those specified by the American Society for Testing of Materials, when available, unless otherwise approved by the department.

(d) Samples shall be analyzed consistent with methods appropriate for the site, the media being analyzed, the hazardous substances being analyzed for, and the anticipated use of the data.

(e) The department may require or approve modifications to the standard analytical methods identified in subsection (4) of this section to provide lower quantitation limits, improved accuracy, greater precision, or to address the factors in (d) of this subsection.

(f) Limits of quantitation. Laboratories shall achieve the lowest practical quantitation limits consistent with the selected method and WAC 173-340-707.

(3) Multiple methods.

(a) Where there is more than one method specified in subsection (4) of this section with a practical quantitation limit less than the cleanup standard, any of the methods may be selected. In these situations, considerations in selecting a particular method may include confidence in the data, analytical costs, and considerations relating to quality assurance or analysis efficiencies.

(b) The department may require an analysis to be conducted by more than one method in order to provide higher data quality. For example, the department may require that different separation and detection techniques be used to verify the presence of a hazardous substance ("qualification") and determine the concentration of the hazardous substance ("quantitation").

(4) Analytical methods.

(a) The methods used for sample collection, sample preservation, transportation, allowable time before analysis, sample preparation, analysis, method detection limits, practical quantitation limits, quality control, quality assurance and other technical requirements and specifications shall comply with the following requirements, as applicable:

(i) Method 1. **Test Methods for Evaluating Solid Waste**, U.S. EPA, SW-846 and any revisions or amendments thereto;

(ii) Method 2. **Methods for Chemical Analysis of Water and Wastes**, U.S. EPA, EPA-600/4-79-020 and any revisions or amendments thereto;

(iii) Method 3. **Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act**, 40 CFR 136, and Appendix A, B, and C, U.S. EPA and any revisions or amendments thereto;

(iv) Method 4. **Standard Methods for the Examination of Water and Wastewater**, American Public Health Association, American Water Works Association, and Water Pollution Control Federation and any revisions or amendments thereto;

(v) Method 5. **Recommended Protocols for Measuring Selected Environmental Variables in Puget Sound**, Puget Sound Estuary Program/Tetra Tech, 1986 and any revisions or amendments thereto;

(vi) Method 6. **Quality Assurance Interim Guidelines for Water Quality Sampling and Analysis**, Groundwater Management Areas Program, Washington Department of Ecology, Water Quality Investigations Section, December 1986 and any revisions or amendments thereto; or

(vii) Equivalent methods subject to approval by the department.

(b) The methods used for a particular hazardous substance at a site shall be selected in consideration of the factors in subsection (2) of this section.

(c) Ground water. Methods 1, 2, 3 and 4, as described in (a) of this subsection, may be used to determine compliance with WAC 173-340-720.

(d) Surface water. Methods 1, 2, 3, 4 and 5 as described in (a) of this subsection, may be used to determine compliance with WAC 173-340-730.

(e) Soil. Method 1, as described in (a) of this subsection, may be used to determine compliance with WAC 173-340-740 and 173-340-745.

(f) Air. Appropriate methods for determining compliance with WAC 173-340-750 shall be selected on a case-by-case basis, in consideration of the factors in subsection (2) of this section.

[Statutory Authority: Chapter 70.105D RCW. 91-04-019, § 173-340-830, filed 1/28/91, effective 2/28/91; 90-08-086, § 173-340-830, filed 4/3/90, effective 5/4/90.]

Chapter 173-360 WAC

UNDERGROUND STORAGE TANK REGULATIONS

WAC

173-360-110	Applicability, exemptions, and deferrals.
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173-360-630	Registration and licensing of tank service providers.
173-360-650	Examination and licensing of tank services supervisors.
173-360-655	Examination and licensing of persons who perform inspections.
173-360-695	Inactive license.

WAC 173-360-110 Applicability, exemptions, and deferrals. (1) The requirements of this chapter apply to all owners and operators of an underground storage tank (UST) system as defined in WAC 173-360-120 except as otherwise provided in subsections (2) and (3) of this section. It is the responsibility of owners and operators to ensure that any UST system service providers and supervisors they employ are properly licensed in accordance with WAC 173-360-600 through 173-360-690.

(2) Exemptions. The following UST systems, including any piping connected thereto, are exempt from the requirements of this chapter:

(a) Any UST system holding hazardous wastes subject to Subtitle C of the Federal Solid Waste Disposal Act, or a mixture of such hazardous waste and other regulated substances.

(b) Any wastewater treatment tank system that is part of a wastewater treatment facility regulated under Section 402 or 307(b) of the Clean Water Act.

(c) Equipment or machinery that contains regulated substances for operational purposes such as hydraulic lift tanks and electrical equipment tanks.

(d) Any UST system whose capacity is one hundred ten gallons or less.

(e) Any UST system that contains a de minimis concentration of regulated substances.

(f) Any emergency spill or overflow containment UST system that is expeditiously emptied after use.

(g) Farm or residential UST systems of one thousand one hundred gallons or less capacity used for storing motor fuel for noncommercial purposes (i.e., not for resale);

(h) UST systems used for storing heating oil for consumptive use on the premises where stored; except that such systems which store in excess of one thousand one hundred gallons are subject to the release reporting requirements of WAC 173-360-372;

(i) Septic tanks;

(j) Any pipeline facility (including gathering lines) regulated under:

(i) The Natural Gas Pipeline Safety Act of 1968 (49 U.S.C. App. 1671, et seq.); or

(ii) The Hazardous Liquid Pipeline Safety Act of 1979 (49 U.S.C. App. 2001, et seq.); or

(iii) Which is an intrastate pipeline facility regulated under state laws comparable to the provisions of the law referred to in (j) (i) or (ii) of this subsection;

(k) Surface impoundments, pits, ponds, or lagoons;

(l) Storm water or wastewater collection systems;

(m) Flow-through process tanks;

(n) Liquid traps or associated gathering lines directly related to oil or gas production and gathering operations; or

(o) Storage tanks situated in an underground area (such as a basement, cellar, vault, mineworking drift, shaft, or tunnel) if the storage tank is situated upon or above the surface of the floor.

(3) Deferrals. The following UST systems are subject only to the requirements of WAC 173-360-130, 173-360-140, 173-360-160, 173-360-170, 173-360-190, 173-360-200, 173-360-372 and 173-360-385. Any new

deferred UST systems shall also be subject to the performance standards of WAC 173-360-300:

(a) Wastewater treatment tank systems not regulated under section 307(b) or 402 of the Clean Water Act;

(b) Any UST systems containing radioactive material that are regulated under the Atomic Energy Act of 1954 (42 U.S.C. 2011 et seq.);

(c) Any UST system that is part of an emergency generator system at nuclear power generation facilities regulated by the Nuclear Regulatory Commission under 10 CFR Part 50 Appendix A;

(d) Airport hydrant fuel distribution systems;

(e) UST systems with field-constructed tanks.

[Statutory Authority: Chapter 90.76 RCW. 91-22-020 (Order 91-26), § 173-360-110, filed 10/29/91, effective 11/29/91; 90-24-017, § 173-360-110, filed 11/28/90, effective 12/29/90.]

WAC 173-360-120 Definitions. For the purposes of this chapter, the following definitions shall apply:

"Abandoned" means left unused indefinitely, without being substantially emptied or permanently altered structurally to prevent reuse.

"Aboveground release" means any release to the surface of the land or to surface water. This includes, but is not limited to, releases from the above-ground portion of an UST system and aboveground releases associated with overfills and transfer operations as the regulated substance moves to or from an UST system.

"Accidental release" means any sudden or nonsudden release of petroleum from an underground storage tank that results in a need for corrective action and/or compensation for bodily injury or property damage neither expected nor intended by the tank owner or operator.

"Ancillary equipment" means any devices including, but not limited to, such devices as piping, fittings, flanges, valves, and pumps used to distribute, meter, or control the flow of regulated substances to and from an UST.

"Belowground release" means any release to the subsurface of the land and to ground water. This includes, but is not limited to, releases from the belowground portions of an underground storage tank system and belowground releases associated with overfills and transfer operations as the regulated substance moves to or from an underground storage tank.

"Beneath the surface of the ground" means beneath the ground surface or otherwise covered with earthen materials.

"Bodily injury" shall have the meaning given to this term by applicable state law; however, this term shall not include those liabilities which, consistent with standard insurance industry practices, are excluded from coverage in liability insurance policies for bodily injury.

"Cathodic protection" means a technique to prevent corrosion of a metal surface by making that surface the cathode of an electrochemical cell. For example, a tank system can be cathodically protected through the application of either galvanic anodes or impressed current.

"Cathodic protection tester" means a person who can demonstrate an understanding of the principles and

measurements of all common types of cathodic protection systems as applied to buried or submerged metal piping and tank systems by passing an examination and obtaining a license for supervision of cathodic protection installation and testing in compliance with WAC 173-360-600 through 173-360-690. At a minimum, such persons shall have education and experience in soil resistivity, stray current, structure-to-soil potential, and component electrical isolation measurements of buried metal piping and tank systems.

"CERCLA" means the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended.

"Closure" means to take an underground storage tank out of operation, either temporarily or permanently, in accordance with WAC 173-360-380 or 173-360-385. The term is synonymous with "decommissioning."

"Compatible" means the ability of two or more substances or materials to maintain their respective physical and chemical properties upon contact with one another such that the stored substance will not pass through the wall or lining of the tank and connected piping for the design life of the tank system under conditions likely to be encountered in the UST.

"Connected piping" means all underground piping including valves, elbows, joints, flanges, and flexible connectors attached to a tank system through which regulated substances flow. For the purpose of determining how much piping is connected to any individual UST system, the piping that joins two UST systems should be allocated equally between them.

"Consumptive use" with respect to heating oil means consumed on the premises.

"Controlling interest" means direct ownership of at least fifty percent of the voting stock of another entity.

"Corrosion expert" means a person who possesses a thorough knowledge of the physical sciences and the principles of engineering and mathematics acquired by a professional education and related practical experience, and is qualified to engage in the practice of corrosion control on buried or submerged metal piping systems and metal tanks. Such a person shall be accredited or certified as being qualified by the National Association of Corrosion Engineers or be a registered professional engineer who has certification or licensing that includes education and experience in corrosion control of buried or submerged metal piping systems and metal tanks.

"Decommissioning" means to take an underground storage tank out of operation, either temporarily or permanently, in accordance with WAC 173-360-380 or 173-360-385. The term is synonymous with "closure."

"Deferral" means a category of UST systems which are subject to certain, but not all, of the requirements of this chapter as specified in WAC 173-360-110(3).

"Delegated agency" means the local government agency which has been delegated responsibility by the department for administering any portion of an UST program approved in accordance with WAC 173-360-500.

"Department" means the department of ecology.

"Dielectric material" means a material that does not conduct direct electrical current. Dielectric coatings are used to electrically isolate UST systems from the surrounding soils. Dielectric bushings are used to electrically isolate portions of the UST system (e.g., tank from piping).

"Director" means the director of the department of ecology.

"Electrical equipment" means underground equipment that contains dielectric fluid that is necessary for the operation of equipment such as transformers and buried electrical cable.

"Emergency power generator" means an engine that uses fuel to produce auxiliary electrical or mechanical energy for use in emergencies.

"Emergency power generator tank" means a tank that stores fuel solely for use by an emergency power generator.

"Excavation zone" means the volume containing the UST system and backfill material bounded by the ground surface, walls, and floor of the pit and trenches into which the UST system is placed at the time of installation.

"Existing UST system" means an UST system used to contain an accumulation of regulated substances or for which installation had commenced on or before December 22, 1988. Installation is considered to have commenced if: The owner or operator had 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 had begun; or

The owner or operator had entered into contractual obligations—which cannot be cancelled or modified without substantial loss—for physical construction at the site or installation of the tank system to be completed within a reasonable time.

"False alarm" means indicating that an UST system is leaking when in fact it is tight.

"Farm tank" is a tank located on a tract of land devoted to the production of crops or raising animals, including fish, and associated residences and improvements. A farm tank must be located on the farm property. "Farm" includes fish hatcheries, rangeland, and nurseries with growing operations. It does not include laboratories where animals are raised, land used to grow timber, pesticide aviation operations, retail stores or garden centers where nursery products are marketed but not grown, cemeteries, golf courses, or other facilities dedicated primarily to recreation or aesthetics, or other non-agricultural activities.

"Field-constructed tank" means an underground storage tank that is constructed in the field rather than factory built because of its large size.

"Financial reporting year" means the latest consecutive twelve-month period for which any of the following reports used to support a financial test is prepared: A 10-K report submitted to the SEC; an annual report of tangible net worth submitted to Dun and Bradstreet; or

annual reports submitted to the Energy Information Administration or the Rural Electrification Administration. "Financial reporting year" may thus comprise a fiscal or a calendar year period.

"Firm" means any business, including but not limited to corporations, limited partnerships, and sole proprietorships, engaged in performing tank services.

"Flow-through process tank" is a tank that forms an integral part of a production process through which there is a steady, variable, recurring, or intermittent flow of materials during the operation of the process. Flow-through process tanks do not include tanks used for the storage of materials prior to their introduction into the production process or for the storage of finished products or by-products from the production process.

"Free product" refers to a regulated substance that is present as a nonaqueous phase liquid (e.g., liquid not dissolved in water).

"Gathering lines" means any pipeline, equipment, facility, or building used in the transportation of oil or gas during oil or gas production or gathering operations.

"Ground water" means water in a saturated zone or stratum beneath the surface of land or below a surface water body.

"Hazardous substance UST system" means an underground storage tank system that contains a hazardous substance defined in section 101(14) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (but not including any substance regulated as a hazardous waste under Subtitle C) or any mixture of such substances and petroleum, and which is not a petroleum UST system.

"Heating oil" means petroleum that is No. 1, No. 2, No. 4—light, No. 4—heavy, No. 5—light, No. 5—heavy, and No. 6 technical grades of fuel oil; other residual fuel oils (including Navy Special Fuel Oil and Bunker C); and other fuels when used as substitutes for one of these fuel oils. Heating oil is typically used in the operation of heating equipment, boilers, or furnaces.

"Hydraulic lift tank" means a tank holding hydraulic fluid for a closed-loop mechanical system that uses compressed air or hydraulic fluid to operate lifts, elevators, and other similar devices.

"Immiscible" means largely incapable of blending or mixing.

"Installation" means the activity of placing an underground storage tank system or any part thereof in the ground and preparing it to be placed in service.

"Legal defense cost" is any expense that an owner or operator or provider of financial assurance incurs in defending against claims or actions brought: By the United States Environmental Protection Agency (EPA) or a state to require corrective action or to recover the costs of corrective action; by or on behalf of a third party for bodily injury or property damage caused by an accidental release; or by any person to enforce the terms of a financial assurance mechanism.

"Licensed" means a firm or a person which has been issued a license by the department under this chapter.

"Liquid trap" means sumps, well cellars, and other traps used in association with oil and gas production,

gathering, and extraction operations (including gas production plants), for the purpose of collecting oil, water, and other liquids. These liquid traps may temporarily collect liquids for subsequent disposition or reinjection into a production or pipeline stream, or may collect and separate liquids from a gas stream.

"Maintenance" means the normal operational upkeep to prevent an underground storage tank system from releasing a regulated substance.

"Motor fuel" means petroleum or a petroleum-based substance that is motor gasoline, aviation gasoline, No. 1 or No. 2 diesel fuel, or any grade of gasohol, and is typically used in the operation of a motor engine.

"New UST system" means a tank system that will be used to contain an accumulation of regulated substances and for which installation commenced after December 22, 1988. (See also "existing tank system.")

"Noncommercial purposes" with respect to motor fuel means not for resale.

"Occurrence" means an accident, including continuous or repeated exposure to conditions, which results in a release from an underground storage tank.

Note: This definition is intended to assist in the understanding of WAC 173-360-400 through 173-360-499 and is not intended either to limit the meaning of "occurrence" in a way that conflicts with standard insurance usage or to prevent the use of other standard insurance terms in place of "occurrence."

"On the premises where stored" with respect to heating oil means UST systems located on the same property where the stored heating oil is used.

"Operational life" refers to the period beginning when installation of the tank system has commenced until the time the tank system is properly closed under WAC 173-360-380 through 173-360-398.

"Operator" means any person in control of, or having responsibility for, the daily operation of the UST system.

"Overfill release" is a release that occurs when a tank is filled beyond its capacity, resulting in a discharge of the regulated substance to the environment.

"Owner" means: In the case of an UST system in use on November 8, 1984, or brought into use after that date, any person who owns an UST system used for storage, use, or dispensing of regulated substances; and in the case of any UST system in use before November 8, 1984, but no longer in use on that date, any person who owned such UST immediately before the discontinuation of its use. In the event that the owner of an UST system cannot be physically located, the owner shall be the person who owns the property where the UST system is located, except any lien holder and any agency of the state or unit of local government which acquired ownership or control involuntarily through bankruptcy, tax delinquency, abandonment, or circumstances in which the government involuntarily acquires title. This exclusion does not apply to an agency of the state or unit of local government which has caused or contributed to a release or threatened release of a regulated substance from the UST system.

"Owner or operator," means, for the purposes of WAC 173-360-400 through 173-360-499, when the

owner or operator are separate parties, the party that is obtaining or has obtained financial assurances.

"Party" means a person or group concerned or having or taking part in any affair, matter, transaction, or proceeding.

"Permanently closed" means: (1) In the case of an UST system taken out of operation before December 22, 1988, the UST system was substantially emptied of regulated substances or permanently altered structurally to prevent reuse; (2) in the case of an UST system taken out of operation after December 21, 1988, and before the effective date of this chapter, the UST system was closed in accordance with 40 CFR 280; and (3) in the case of an UST system taken out of operation on or after the effective date of this chapter, the UST system was closed in accordance with WAC 173-360-385.

"Person" means an individual, trust, firm, joint stock company, federal agency, corporation, state, municipality, commission, political subdivision of a state, or any interstate body. "Person" also includes a consortium, a joint venture, a commercial entity, and the United States government.

"Petroleum marketing facilities" include all facilities at which petroleum is produced or refined and all facilities from which petroleum is sold or transferred to other petroleum marketers or to the public.

"Petroleum marketing firms" are all firms owning petroleum marketing facilities. Firms owning other types of facilities with USTs as well as petroleum marketing facilities are considered to be petroleum marketing firms.

"Petroleum UST system" means an underground storage tank system that contains petroleum or a mixture of petroleum with de minimis quantities of other regulated substances. Such systems include those containing motor fuels, jet fuels, distillate fuel oils, residual fuel oils, lubricants, petroleum solvents, and used oils.

"Pipe" or "piping" means a hollow cylinder or tubular conduit that is constructed of nonearthen materials.

"Pipeline facilities (including gathering lines)" are new and existing pipe rights-of-way and any associated equipment, facilities, or buildings.

"Property damage" shall have the meaning given this term by applicable state law. This term shall not include those liabilities which, consistent with standard insurance industry practices, are excluded from coverage in liability insurance policies for property damage. However, such exclusions for property damage shall not include corrective action associated with releases from tanks which are covered by the policy.

"Provider of financial assurance" means an entity that provides financial assurance to an owner or operator of an underground storage tank through one of the mechanisms listed in WAC 173-360-413 through 173-360-436, including a guarantor, insurer, risk retention group, surety, issuer of a letter of credit, issuer of a state-required mechanism, or a state.

"Regulated substance" means:

Any substance defined in section 101(14) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980 (but not including

any substance regulated as a hazardous waste under Subtitle C of the Federal Solid Waste Disposal Act, or a mixture of such hazardous waste and any other regulated substances); and

Petroleum, including crude oil or any fraction thereof that is liquid at standard conditions of temperature and pressure (sixty degrees Fahrenheit and 14.7 pounds per square inch absolute). The term "regulated substance" includes but is not limited to petroleum and petroleum-based substances comprised of a complex blend of hydrocarbons derived from crude oil through processes of separation, conversion, upgrading and finishing, such as motor fuels, jet fuels, distillate fuel oils, residual fuel oils, lubricants, petroleum solvents, and used oils. The term "regulated substance" does not include propane or asphalt or any other petroleum product which is not liquid at standard conditions of temperature and pressure.

"Release" means any spilling, leaking, emitting, discharging, escaping, leaching, or disposing from an UST system to ground water, surface water or soils.

"Release detection" means determining whether a release of a regulated substance has occurred from the UST system into the environment or into the interstitial space between the UST system and its secondary barrier or secondary containment around it.

"Repair" means to restore a tank or UST system component that has caused a release of a regulated substance from the UST system.

"Residential tank" is a tank located on property used primarily for dwelling purposes; such properties do not include dormitories, convents, mobile parks, apartments, hotels and similar facilities, unless the tank is used by the owner solely for his or her own personal use, rather than to maintain the overall facility.

"Retrofitting" means the repair or upgrading of an existing underground storage tank system including, but not limited to, installation of splash, spill and overflow protection, installing or replacing monitoring systems, adding cathodic protective systems, tank repair, replacement of piping, valves, fill pipes or vents and installing tank liners.

"Septic tank" is a water-tight covered receptacle designed and used to receive or process, through liquid separation or biological digestion, the sewage discharged from a building sewer. The effluent from such receptacle is distributed for disposal through the soil and settled solids and scum from the tank are pumped out periodically and hauled to a treatment facility.

"Site assessment" means investigating an UST site for the presence of a release at the time of closure or change-in-service.

"Site check" means investigating an UST site for the presence of a release when evidence indicates that a release may have occurred.

"Stormwater or wastewater collection system" means piping, pumps, conduits, and any other equipment necessary to collect and transport the flow of surface water run-off resulting from precipitation, or domestic, commercial, or industrial wastewater to and from retention areas or any areas where treatment is designated to occur. The collection of storm water and wastewater does

not include treatment except where incidental to conveyance.

"Structural defect" means a hole or crack in the tank portion of the UST system, which has either caused a release from the system or is being repaired to prevent a release from the system.

"Substantial business relationship" means the extent of a business relationship necessary under applicable state law to make a guarantee contract issued incident to that relationship valid and enforceable. A guarantee contract is issued "incident to that relationship" if it arises from and depends on existing economic transactions between the guarantor and the owner or operator.

"Supervisor" means a licensed person operating independently or employed by a contractor, who is responsible for directing and overseeing the performance of tank services at a facility.

"Surface impoundment" is a natural topographic depression, excavation, or diked area formed primarily of earthen materials (although it may be lined with synthetic materials) that is not an injection well.

"Tangible net worth" means the tangible assets that remain after deducting liabilities; such assets do not include intangibles such as goodwill and rights to patents or royalties. For purposes of this definition, "assets" means all existing and all probable future economic benefits obtained or controlled by a particular entity as a result of past transactions.

"Tank" is a stationary device designed to contain an accumulation of regulated substances and constructed of nonearthen materials (e.g., concrete, steel, plastic) that provide structural support.

"Tank permit" means a tank tag, as required by RCW 90.76.020(4).

"Tank services" include underground storage tank installation, decommissioning, retrofitting, and testing.

"Tank services provider" is a person or firm licensed to perform tank services on regulated underground storage tanks in Washington.

"Termination" under WAC 173-360-476 and 173-360-480 means only those changes that could result in a gap in coverage as where the insured has not obtained substitute coverage or has obtained substitute coverage with a different retroactive date than the retroactive date of the original policy.

"Testing" means applying a method to determine the integrity of an underground storage tank.

"Tightness testing" means a procedure for testing the ability of a tank system to prevent an inadvertent release of any stored substance into the environment or, in the case of an underground storage tank system, intrusion of ground water into a tank system.

"Underground area" means an underground room, such as a basement, cellar, shaft or vault, providing enough space for physical inspection of the exterior of the tank situated on or above the surface of the floor.

"Underground release" means any below ground release.

"Underground storage tank" or "UST" means any one or combination of tanks (including underground

pipes connected thereto) that is used to contain an accumulation of regulated substances, and the volume of which (including the volume of underground pipes connected thereto) is ten percent or more beneath the surface of the ground. This term does not include any of the exempt UST systems specified in WAC 173-360-110(2), or any piping connected thereto.

"Upgrade" means the addition or retrofit of some systems such as cathodic protection, lining, or spill and overflow controls to improve the ability of an underground storage tank system to prevent the release of regulated substances.

"UST site" or "site" means the location at which underground storage tanks are in place or will be placed. An UST site encompasses all of the property within a contiguous ownership that is associated with the use of the tanks.

"UST system" or "tank system" means an underground storage tank, connected underground piping, underground ancillary equipment, and containment system, if any.

"Wastewater treatment tank" means a tank that is designed to receive and treat an influent wastewater through physical, chemical, or biological methods.

[Statutory Authority: Chapter 90.76 RCW. 91-22-020 (Order 91-26), § 173-360-120, filed 10/29/91, effective 11/29/91; 90-24-017, § 173-360-120, filed 11/28/90, effective 12/29/90.]

WAC 173-360-130 Tank permits and delivery of regulated substances. (1) Requirement for a permit. After July 1, 1991, no underground storage tank system, as defined in this chapter, shall be operated without a valid permit from the department. However, possession of a valid permit does not preclude enforcement against the owner or operator of the underground storage tank under this or other laws.

(2) Application for a permit. Permits for UST systems shall be obtained as follows:

(a) To apply for a permit for an UST system which is to be newly installed, the owner or operator shall complete a notice of intent to install an UST system, as specified in WAC 173-360-200(1), and submit it to the department at least thirty days prior to installation of the system. An initial permit, valid for ninety days, will be provided by the department so the UST system can be tested and operation of the system can begin. If necessary, and if circumstances warrant, an additional permit valid for ninety days will be provided by the department. Upon receipt of the following items, a permit valid until the following June 30, if the UST system remains in compliance, will be provided by the department for the newly installed UST system:

(i) A properly completed UST notification form, as specified in WAC 173-360-200(2); and

(ii) A properly completed installation checklist, as specified in WAC 173-360-200(3).

(b) To apply for a permit for an existing UST system not previously reported to the department, the owner or operator shall complete a Washington state underground storage tank notification form, as specified in WAC 173-360-200(2), and submit it to the department with a

payment of the applicable annual fee, as specified in WAC 173-360-190, including any fees which should have been paid for earlier fiscal years if the UST system had been properly registered, but which were not paid.

(c) To apply for a permit for a tank which has been temporarily out of service, the owner or operator shall notify the department of the change in status and follow the provisions of WAC 173-360-380.

(d) Each year the department will request owners and operators of reported UST systems to certify compliance with the requirements of this chapter. UST systems which are in the department's notification data base when the department requests this certification will receive permits by July 1 of each year if:

(i) Adequate documentation of compliance, as specified by the department, is submitted to the department; and

(ii) The documentation of compliance is submitted by the deadline for submittal established by the department in its request.

(3) Eligibility for a permit. Tanks which are temporarily closed under WAC 173-360-380 are not eligible to receive permits. Underground storage tank systems are eligible for a permit if the following conditions are met:

(a) The owner or operator is in compliance with all requirements of this chapter, including the financial responsibility requirements, and chapter 173-340 WAC, if applicable, or the owner or operator is in conformance with a compliance schedule negotiated with and agreed to by the department;

(b) The storage tank system is not known by the owner or operator to be leaking; and

(c) All annual state tank fees and local environmentally sensitive area tank fees have been remitted.

(4) Delivery of regulated substances. Regulated substances shall not be delivered to any underground storage tank requiring a permit under this section unless a valid permit is displayed on such tank itself or the dispensing or measuring device connected thereto or, where appropriate, in the office or kiosk of the facility where the tank is located. This subsection applies only to suppliers who directly transfer regulated substances into underground storage tank systems.

(5) Waste oil tanks. Tanks used to collect and store used or waste oil regulated under this chapter shall not be pumped by a used or waste oil collector unless a valid permit is displayed on such tank itself or a device connected thereto or, where appropriate, in the office or kiosk of the facility where the tank is located. This prohibition does not apply to a one-time removal of substances from tanks which will not be used again for the storage of used or waste oil once the substances are removed; such tanks must be properly closed or undergo the procedures for a change-in-service in accordance with WAC 173-360-385. This subsection applies only to used or waste oil collectors who directly transfer regulated substances from underground storage tanks.

(6) Delivery prohibited to leaking tanks. Except as specified in subsection (10) of this section, suppliers

shall not deliver regulated substances to any underground storage tank which is known by the supplier to be leaking, or to have leaked and not been properly repaired, regardless of the permit status of the tank.

(7) Delivery of regulated substances. If a confirmed release occurs from a permitted tank, in addition to meeting the reporting requirements of WAC 173-360-372, within twenty-four hours of having knowledge of the release the owner or operator shall lock the fill pipe and remove from display the permit for the tank from which the release has occurred. At no time can the owner or operator receive regulated substances, except as specified in subsection (10) of this section, until all the applicable requirements of this chapter and chapter 173-340 WAC have been met. If the department determines that reasonable progress is not being made in meeting these requirements it may request that the owner or operator surrender the permit, as specified in subsection (8) of this section, for the tank from which the release occurred.

(8) Permit revocation. The department may request the surrender of a permit for any tank which does not remain in compliance with the requirements of this chapter, including financial responsibility requirements and payment of fees, or for any violation of the chapter by an underground storage tank owner or operator, including refusal of access to property under WAC 173-360-140. Upon request of a representative of the department or delegated agency or upon receipt of a letter from the department or delegated agency requesting surrender of the permit, the owner or operator must return the permit to the department or delegated agency within seven days.

(9) When a tank is closed, any active permit must be returned to ecology within thirty days of the completion of the closure procedures.

(10) Appeals. The revocation of a permit may be appealed to the pollution control hearings board, pursuant to chapter 43.21B RCW.

(11) Display of permits for tightness testing. A permit which has been removed from display in accordance with subsection (7) of this section may be redisplayed for the purpose of receiving regulated substances in order to conduct a volumetric tightness test on the storage system. If a leak is determined to exist in the uppermost level of the system, the regulated substance shall be immediately removed to a point below the source of the leak. If a leak is determined to exist below the uppermost level of the system, all regulated substances shall be immediately removed from the system. The requirements of subsection (7) of this section and the requirement for reporting of confirmed releases specified in WAC 173-360-372 shall be followed, regardless of the location of the source of the release in the storage tank system.

[Statutory Authority: Chapter 90.76 RCW. 91-22-020 (Order 91-26), § 173-360-130, filed 10/29/91, effective 11/29/91; 90-24-017, § 173-360-130, filed 11/28/90, effective 12/29/90.]

WAC 173-360-200 Notification requirements. (1)
Notice of intent to install a new UST system. Except in

the circumstances defined in subsection (5) of this section, any owner who intends to install a new UST system shall submit a notice of such intent to the department or delegated agency at least thirty days prior to installing the UST system. Such notice shall meet the following requirements:

(a) The notice of intent shall be provided on the appropriate Washington state form, which is available from the department;

(b) Each UST system to be installed which is regulated under this chapter shall be reported;

(c) Owners may provide notice for more than one UST system using a single form, but UST systems to be installed at separate sites shall be reported on separate forms; and

(d) The completed form shall include all of the information required on the form.

(2) Notification of new UST systems in use. Within thirty days of bringing any newly installed UST system regulated under this chapter into use, the owner shall submit notice of such UST system to the department. This notice shall meet the following requirements:

(a) The notice shall be provided on the appropriate Washington state underground storage tank notification form, which is available from the department;

(b) Each tank regulated under this chapter shall be reported;

(c) Owners may provide notice for more than one tank using a single notification form, but owners who own tanks located at more than one site shall file a separate notification form for each site;

(d) Notification required under this section shall include all of the information required on the form for each tank for which notice must be given; and

(e) Notification for tanks installed after December 22, 1988, shall also certify compliance with the following requirements:

(i) Corrosion protection of steel tanks and piping under WAC 173-360-305 (1) and (2);

(ii) Financial responsibility under WAC 173-360-400 through 173-360-499; and

(iii) Release detection under WAC 173-360-335 and 173-360-340.

(3) Installation checklist. All owners and operators of new UST systems shall ensure that a licensed installation supervisor certifies that the methods used to install the tanks and piping comply with the requirements in WAC 173-360-305(4). Such certification shall be accomplished by completing an installation checklist, which is available from the department, as specified in WAC 173-360-305(5).

(4) Notification of existing UST systems. Owners of any existing UST system regulated under this chapter which has not previously been reported to the department shall provide notification regarding such UST system immediately, following the requirements of subsection (2) (a) through (e) of this section.

Note: Owners and operators of UST systems that were in the ground on or after May 8, 1986, unless taken out of operation on or before January 1, 1974, were required to notify the department in accordance with the Hazardous and Solid Waste Amendments of 1984, Public Law 98-616, on a form published by

Washington state unless notice was given pursuant to section 103(c) of CERCLA.

(5) Emergency replacement of UST systems.

(a) An exception to the thirty-day notice requirement for new installations in subsection (1) of this section is allowed when an UST system is being replaced on an emergency basis due to a release from the system being replaced. An emergency shall be regarded as a newly discovered release from an UST system which is:

- (i) In operation at the time of the release;
- (ii) Located at an operating facility; and
- (iii) Necessary for the normal operation of the facility.

(b) Under the circumstances described in (a) of this subsection, the notice of intent to install an UST system may be provided after the installation of the new system but no more than seven days after the installation is completed. The information which must be included in the notice of intent form is the same as in subsection (1) of this section. A site assessment meeting the requirements of WAC 173-360-390 shall be completed prior to installing a tank in the excavation pit of a tank being replaced and prior to installing new piping in the piping trench of piping being replaced.

(6) Changes to UST systems. Any changes in the information initially reported in the notification form submitted under subsection (2), (4) or (5) of this section, including temporary closure of an UST system that was initially reported as being in use, shall be reported to the department or delegated agency by submitting a new notification form within thirty days after such changes occur.

(7) Beginning October 24, 1988, any person who sells a new tank which is intended to be used as an underground storage tank, or an existing UST system or property including an existing UST system which is intended to be used as an UST system, shall notify the purchaser of such tank or UST system of the owner's notification obligations under this section.

[Statutory Authority: Chapter 90.76 RCW. 91-22-020 (Order 91-26), § 173-360-200, filed 10/29/91, effective 11/29/91; 90-24-017, § 173-360-200, filed 11/28/90, effective 12/29/90.]

WAC 173-360-305 Performance standards for new UST systems. In order to prevent releases due to structural failure, corrosion, or spills and overfills for as long as the UST system is used to store regulated substances, all owners and operators of new UST systems shall meet the following requirements:

(1) Tanks. Each tank shall be properly designed and constructed with material that is compatible with and impermeable to the stored substance, and any portion underground that routinely contains regulated substances shall be protected from corrosion, in accordance with a code of practice developed by a nationally recognized association or independent testing laboratory as specified under (a) through (d) below:

(a) The tank is constructed of fiberglass-reinforced plastic; or

Note: The following industry codes may be used to comply with subsection (1)(a) of this section: Underwriters Laboratories Standard 1316, "Standard for Glass-Fiber-Reinforced Plastic Underground Storage Tanks for Petroleum Products"; Underwriter's Laboratories of Canada CAN4-S615-M83, "Standard for Reinforced Plastic Underground Tanks for Petroleum Products"; or American Society of Testing and Materials Standard D4021-86, "Standard Specification for Glass-Fiber-Reinforced Polyester Underground Petroleum Storage Tanks."

(b) The tank is constructed of steel and cathodically protected in the following manner:

(i) The tank is coated with a suitable dielectric material;

(ii) The tank is equipped with a factory-installed or field-installed cathodic protection system designed by a corrosion expert;

(iii) Cathodic protection systems are designed and installed to include provisions for testing to allow a determination of current operating status as required in WAC 173-360-320(2) and to facilitate testing by the department or delegated agency in accordance with WAC 173-360-325 (5) and (6); and

(iv) Cathodic protection systems are operated and maintained in accordance with WAC 173-360-320 or according to guidelines established by the department or delegated agency; or

Note: The following codes and standards may be used to comply with subsection (1)(b) of this section:

(A) Steel Tank Institute "Specification for STI-P3 System of External Corrosion Protection of Underground Steel Storage Tanks";

(B) Underwriters Laboratories Standard 1746, "Corrosion Protection Systems for Underground Storage Tanks";

(C) Underwriters Laboratories of Canada CAN4-S603-M85, "Standard for Steel Underground Tanks for Flammable and Combustible Liquids," and CAN4-G03.1-M85, "Standard for Galvanic Corrosion Protection Systems for Underground Tanks for Flammable and Combustible Liquids," and CAN4-S631-M84, "Isolating Bushings for Steel Underground Tanks Protected with Coatings and Galvanic Systems"; or

(D) National Association of Corrosion Engineers Standard RP-02-85, "Control of External Corrosion on Metallic Buried, Partially Buried, or Submerged Liquid Storage Systems," and Underwriters Laboratories Standard 58, "Standard for Steel Underground Tanks for Flammable and Combustible Liquids."

(c) The tank is constructed of a steel-fiberglass-reinforced-plastic composite; or

Note: The following industry codes may be used to comply with subsection (1)(c) of this section: Underwriters Laboratories Standard 1746, "Corrosion Protection Systems for Underground Storage Tanks," or the Association for Composite Tanks ACT-100, "Specification for the Fabrication of FRP Clad Underground Storage Tanks."

(d) The tank construction and corrosion protection are determined by the department or delegated agency to be designed to prevent the release or threatened release of any stored regulated substance in a manner that is no less protective of human health and the environment than subsection (1)(a) through (c) of this section.

(2) Piping. The piping that routinely contains regulated substances and is in contact with the ground shall be properly designed and constructed with material that is compatible with and impermeable to the stored substance, and protected from corrosion in accordance with a code of practice developed by a nationally recognized association or independent testing laboratory as specified below:

(a) The piping is constructed of fiberglass-reinforced plastic; or

Note: The following codes and standards may be used to comply with subsection (2)(a) of this section:

(i) Underwriters Laboratories Subject 971, "UL Listed Non-Metal Pipe";

(ii) Underwriters Laboratories Standard 567, "Pipe Connectors for Flammable and Combustible and LP Gas";

(iii) Underwriters Laboratories of Canada Guide ULC-107, "Glass Fiber Reinforced Plastic Pipe and Fittings for Flammable Liquids"; and

(iv) Underwriters Laboratories of Canada Standard CAN 4-S633-M81, "Flexible Underground Hose Connectors."

(b) The piping is constructed of steel and cathodically protected in the following manner:

(i) The piping is coated with a suitable dielectric material;

(ii) Field-installed cathodic protection systems are designed by a corrosion expert;

(iii) Cathodic protection systems are designed and installed to include provisions for testing to allow a determination of current operating status as required in WAC 173-360-320(2) and to facilitate testing by the department or delegated agency in accordance with WAC 173-360-325 (5) and (6); and

(iv) Cathodic protection systems are operated and maintained in accordance with WAC 173-360-320 or guidelines established by the department or delegated agency; or

Note: The following codes and standards may be used to comply with subsection (2)(b) of this section:

(A) National Fire Protection Association Standard 30, "Flammable and Combustible Liquids Code";

(B) American Petroleum Institute Publication 1615, "Installation of Underground Petroleum Storage Systems";

(C) American Petroleum Institute Publication 1632, "Cathodic Protection of Underground Petroleum Storage Tanks and Piping Systems"; and

(D) National Association of Corrosion Engineers Standard RP-01-69, "Control of External Corrosion on Submerged Metallic Piping Systems."

(c) The piping construction and corrosion protection are determined by the department or delegated agency to be designed to prevent the release or threatened release of any stored regulated substance in a manner that is no less protective of human health and the environment than the requirements in subsection (2)(a) and (b) of this section.

(d) Metal flexible underground hose connectors shall be cathodically protected or covered with sleeves or jackets that will provide corrosion protection over the operating life of the UST system.

(3) Spill and overflow prevention equipment.

(a) Except as provided in subsection (3)(b) of this section, to prevent spilling and overflowing associated with transfer of regulated substances to the UST system, owners and operators shall use the following spill and overflow prevention equipment:

(i) Spill prevention equipment that will prevent release of regulated substances to the environment when the transfer hose is detached from the fill pipe (for example, a spill catchment basin); and

(ii) Overflow prevention equipment that will:

(A) Automatically shut off flow into the tank when the tank is no more than ninety-five percent full;

(B) Alert the transfer operator when the tank is no more than ninety percent full by restricting the flow into the tank or triggering a high-level alarm; or

(C) Restrict flow thirty minutes prior to overflowing, alert the operator with a high level alarm one minute before overflowing, or automatically shut off flow into the tank so that none of the fittings located on top of the tank are exposed to regulated substances due to overflowing.

Note: Overflow prevention equipment that will automatically shut off or restrict flow into the tank should not be used where a pressurized fuel transfer system may be employed since an overflow may occur when the flow is suddenly shut off or restricted.

(b) Owners and operators are not required to use the spill and overflow prevention equipment specified in subsection (3)(a) of this section if:

(i) Alternative equipment is used that is determined by the department or delegated agency to be no less protective of human health and the environment than the equipment specified in subsection (3)(a)(i) or (ii) of this section; or

(ii) The UST system is filled by transfers of no more than twenty-five gallons at one time.

(4) Installation. All tanks and piping shall be properly installed by a licensed tank services provider in accordance with a code of practice developed by a nationally recognized association or independent testing laboratory and in accordance with the manufacturer's instructions.

Note: Tank and piping system installation practices and procedures described in the following codes may be used to comply with the requirements of subsection (4) of this section:

(a) American Petroleum Institute Publication 1615, "Installation of Underground Petroleum Storage System"; or

(b) Petroleum Equipment Institute Publication RP100, "Recommended Practices for Installation of Underground Liquid Storage Systems"; or

(c) American National Standards Institute Standard B31.3, "Petroleum Refinery Piping," and American National Standards Institute Standard B31.4 "Liquid Petroleum Transportation Piping System."

(5) Certification of installation. All owners and operators shall ensure that a licensed tank services provider certifies compliance with subsection (4) of this section by submitting a properly completed installation checklist

to the department on a form provided by the department as required in WAC 173-360-630(12).

[Statutory Authority: Chapter 90.76 RCW. 91-22-020 (Order 91-26), § 173-360-305, filed 10/29/91, effective 11/29/91; 90-24-017, § 173-360-305, filed 11/28/90, effective 12/29/90.]

WAC 173-360-310 Upgrading requirements for existing UST systems. (1) Alternatives allowed. Not later than December 22, 1998, all existing UST systems shall comply with one of the following requirements:

(a) New UST system performance standards under WAC 173-360-305;

(b) The upgrading requirements in subsections (2) through (4) of this section; or

(c) Closure requirements under WAC 173-360-380 through 173-360-398, including applicable requirements for corrective action under WAC 173-360-399.

(2) Tank upgrading requirements. Steel tanks shall be upgraded by a licensed tank services provider to meet one of the following requirements in accordance with a code of practice developed by a nationally recognized association or independent testing laboratory:

(a) Interior lining. A tank may be upgraded by interior lining if:

(i) The lining is installed in accordance with the requirements of WAC 173-360-325; and

(ii) Within ten years after lining, and every five years thereafter, the lined tank is internally inspected and found to be structurally sound with the lining still performing in accordance with original design specifications, unless cathodic protection is also installed within ten years of lining the tank, as specified in WAC 173-360-310 (2)(c).

(b) Cathodic protection. A tank may be upgraded by cathodic protection if the cathodic protection system meets the requirements of WAC 173-360-305 (1)(b)(ii), (iii), and (iv) and the integrity of the tank is ensured using one of the following methods:

(i) The tank is internally inspected and assessed to ensure that the tank is structurally sound and free of corrosion holes prior to installing the cathodic protection system; or

(ii) The tank has been installed or internally lined for less than ten years and is monitored monthly for releases in accordance with WAC 173-360-345 (6)(e) through (6)(i); or

(iii) The tank has been installed or internally lined for less than ten years and is assessed for corrosion holes by conducting two tightness tests that meet the requirements of WAC 173-360-345 (6)(d). The first tightness test shall be conducted prior to installing the cathodic protection system. The second tightness test shall be conducted between three and six months following the first operation of the cathodic protection system; or

(iv) The tank is assessed for corrosion holes by a method that is determined by the department or delegated agency to prevent releases in a manner that is no less protective of human health and the environment than subsection (2)(b)(i) through (iii) of this section.

(c) Internal lining combined with cathodic protection. A tank may be upgraded by both internal lining and cathodic protection if:

(i) The lining is installed in accordance with the requirements of WAC 173-360-325; and

(ii) The cathodic protection system is installed within ten years of the tank being lined and meets the requirements of WAC 173-360-305 (1)(b)(ii), (iii), and (iv).

Note: The following codes and standards may be used to comply with this section:

(A) American Petroleum Institute Publication 1631, "Recommended Practice for the Interior Lining of Existing Steel Underground Storage Tanks";

(B) National Leak Prevention Association Standard 631, "Spill Prevention, Minimum 10 Year Life Extension of Existing Steel Underground Tanks by Lining Without the Addition of Cathodic Protection";

(C) National Association of Corrosion Engineers Standard RP-02-85, "Control of External Corrosion on Metallic Buried, Partially Buried, or Submerged Liquid Storage Systems";

(D) American Petroleum Institute Publication 1632, "Cathodic Protection of Underground Petroleum Storage Tanks and Piping Systems"; and

(E) Steel Tank Institute Publication STI F894-91 "Specifications for External Corrosion Protection FRP Composite Underground Steel Storage Tanks."

(3) Piping upgrading requirements. Metal piping that routinely contains regulated substances and is in contact with the ground shall be cathodically protected in accordance with a code of practice developed by a nationally recognized association or independent testing laboratory and shall meet the requirements of WAC 173-360-305 (2)(b)(ii), (iii), and (iv).

Note: The codes and standards listed in the note following WAC 173-360-305 (2)(b) may be used to comply with this requirement.

(4) Spill and overfill prevention equipment. To prevent spilling and overfilling associated with transfer of regulated substances to the UST system, all existing UST systems shall comply with new UST system spill and overfill prevention equipment requirements specified in WAC 173-360-305(3), except that an UST system that is filled by transfers of no more than twenty-five gallons at a time is not required to use spill and overfill prevention equipment.

(5) Tank services providers who perform any of the tank services described in this section shall certify that such services comply with the requirements of this section by submitting the appropriate checklist(s) to the department in accordance with WAC 173-360-630(12).

[Statutory Authority: Chapter 90.76 RCW. 91-22-020 (Order 91-26), § 173-360-310, filed 10/29/91, effective 11/29/91; 90-24-017, § 173-360-310, filed 11/28/90, effective 12/29/90.]

WAC 173-360-330 Release detection compliance schedule. Owners and operators of all UST systems shall comply with the release detection requirements of WAC 173-360-330 through 173-360-355 by December 22 of the year listed in the following table:

TABLE: SCHEDULE FOR PHASE-IN OF RELEASE DETECTION

Year System was installed	Year when release detection is required (by December 22 of the year indicated)						
	1989	1990	1991	1992	1993	1994	1995
Before 1965 or date unknown.	RD	P	E				
1965-69..		P/RD		E			
1970-74..		P	RD		E		
1975-79..		P		RD		E	
1980-88..		P			RD		E

New tanks (after December 22, 1988,) immediately upon installation, except that emergency generator tanks installed between 1989 and 1990 must have release detection by 1996 and emergency generator tanks installed after December 29, 1990, must have release detection immediately upon installation.

P- Except for pressurized piping associated with emergency power generator tanks, must begin release detection by December 22, 1992.

RD- Except for emergency power generator tanks, must begin release detection for tanks and suction piping in accordance with WAC 173-360-335 (2)(a), 173-360-350 (2)(b), and 173-360-340.

E- Must begin release detection for emergency power generator tanks and piping in accordance with WAC 173-360-335 (2)(a) and 173-360-350 (2)(a) or (b).

Note: Dates preceding the effective date of this rule correspond to federal requirements under 40 CFR 280 and are included here to reflect conformity to the federal rule.

[Statutory Authority: Chapter 90.76 RCW. 91-22-020 (Order 91-26), § 173-360-330, filed 10/29/91, effective 11/29/91; 90-24-017, § 173-360-330, filed 11/28/90, effective 12/29/90.]

WAC 173-360-345 Methods of release detection for tanks. (1) Any method of release detection for tanks shall meet the performance requirements of this section. In addition, methods used after December 22, 1990, except for methods permanently installed prior to that date, shall be capable of detecting the leak rate or quantity specified for that method in subsection (6)(b), (c), (d), and (e) of this section with a probability of detection of 0.95 and a probability of false alarm of 0.05. (That is, under test conditions, a method will correctly detect at least ninety-five of one hundred actual releases, and will falsely indicate a release no more than five times in one hundred tests of nonleaking systems.)

Note: The establishment of leak indication thresholds is a means of setting a standard for the equipment or method used. It is not in any way meant to imply that actual leak rates less than these limits are allowable. No release is acceptable, and any indication that a release may have occurred should be investigated in accordance with WAC 173-360-360. Manufacturers and tank services providers installing or utilizing leak detection equipment and/or methods are encouraged to follow EPA's standard test procedures for evaluating leak detection methods to demonstrate compliance with the requirements of subsection (1) of this section.

(2) UST systems that meet the new tank or upgraded tank performance standards in WAC 173-360-305 or 173-360-310, and the inventory control requirements in

subsection (6) (a) or (b) of this section, may use tank tightness testing (conducted in accordance with subsection (6)(d) of this section) at least every five years until December 22, 1998, or until ten years after the tank is installed or upgraded under WAC 173-360-310(2), whichever is later.

(3) UST systems that do not meet the new tank or upgraded tank performance standards in WAC 173-360-305 or 173-360-310 may use inventory controls (conducted in accordance with subsection (6) (a) or (b) of this section) and annual tank tightness testing (conducted in accordance with subsection (6)(d) of this section) until December 22, 1998, when the tank shall be upgraded under WAC 173-360-310 or permanently closed under WAC 173-360-385.

(4) Tanks with capacity of one thousand gallons or less may use weekly tank gauging conducted in accordance with subsection (6)(b) of this section.

(5) Tanks that store fuel solely for use by emergency power generators may use the following methods of release detection:

(a) Emergency power generator tanks with nominal capacity of one thousand gallons or less may use monthly tank gauging conducted in accordance with subsection (6)(c) of this section.

(b) Emergency power generator tanks with nominal capacity of five hundred fifty-one to two thousand gallons may use monthly tank gauging conducted in accordance with subsection (6)(c) of this section, in conjunction with annual tank tightness testing conducted in accordance with subsection (6)(d) of this section.

(c) Except as provided in subsection (2) of this section, emergency power generator tanks with nominal capacity greater than two thousand gallons may use weekly tank gauging conducted in accordance with subsection (6)(b) of this section, in conjunction with annual tank tightness testing conducted in accordance with subsection (6)(d) of this section.

(6) Each method of release detection for tanks used to meet the requirements of WAC 173-360-335 shall be conducted in accordance with the following:

(a) Daily inventory control. Daily inventory control (or another test of equivalent performance) shall be conducted in a manner capable of detecting a release of at least 1.0 percent of flow-through plus 130 gallons on a monthly basis in the following manner:

(i) Inventory volume measurements for regulated substance inputs, withdrawals, and the amount still remaining in the tank are recorded each operating day;

(ii) The equipment used is capable of measuring the level of regulated substance in the tank over the full range of the tank's height to the nearest one-eighth of an inch;

(iii) The regulated substance inputs are reconciled with delivery receipts by measurement of the tank inventory volume before and after delivery;

(iv) Deliveries are made through a drop tube that extends to within one foot of the tank bottom;

(v) Dispensing of regulated substances is metered and recorded within the local standards for meter calibration

or an accuracy of at least six cubic inches for every five gallons of regulated substances which is withdrawn; and

(vi) The measurement of any water level in the bottom of the tank is made to the nearest one-eighth of an inch at least once a month.

Note: Practices described in the American Petroleum Institute Publication 1621, "Recommended Practice for Bulk Liquid Stock Control at Retail Outlets," may be used, where applicable, as guidance in meeting the requirements of this paragraph.

(b) Weekly tank gauging. Only tanks of one thousand gallons or less nominal capacity may use weekly tank gauging as the sole method of release detection. Tanks of one thousand to two thousand gallons may use the method in place of daily inventory control in (a) of this subsection, in conjunction with tank tightness testing, as specified in (d) of this subsection. Tanks of greater than two thousand gallons nominal capacity may use this method to meet the requirements of WAC 173-360-330 through 173-360-355 only if such tanks store fuel solely for use by emergency power generators. Weekly tank gauging shall meet the following requirements:

(i) Tank liquid level measurements are taken weekly at the beginning and ending of a period of at least thirty-six hours during which no liquid is added to or removed from the tank;

(ii) Level measurements are based on an average of two consecutive stick readings at both the beginning and ending of the period (that is, four measurements shall be taken, two consecutive measurements at the beginning and two consecutive measurements at the end of the period during which no liquid has been added or removed from the tank);

(iii) The equipment used is capable of measuring the level of regulated substance in the tank over the full range of the tank's height to the nearest one-eighth of an inch;

(iv) If the variation between beginning and ending measurements exceeds the weekly or monthly standards in the following table, a leak may be occurring and the requirements of WAC 173-360-360 through 173-360-375 shall be followed:

Nominal Tank Capacity	Weekly Standard (one test)	Monthly Standard (average of four tests)
550 gallons or less	10 gallons	5 gallons
551-1,000 gallons	13 gallons	7 gallons
1,001-2,000 gallons	26 gallons	13 gallons
2,001 gallons or more*	.75% of capacity	.5% of capacity

(*Emergency Power Generator Tanks only.)

(c) Monthly tank gauging. Only tanks that store fuel solely for use by emergency power generators with a nominal capacity of two thousand gallons or less may use monthly tank gauging as a method of release detection. Such tanks with nominal capacity of five hundred fifty-one to two thousand gallons shall also have an annual tank tightness test conducted in accordance with (d) of this subsection. Monthly tank gauging shall meet the following requirements:

(i) Inventory volume measurements for regulated substance inputs, withdrawals, and the amount still remaining in the tank are recorded whenever inputs or withdrawals occur;

(ii) Tank liquid level measurements reconciled with inventory volume measurements are taken monthly at the beginning and ending of a period of at least twenty-one days, except when extreme snowfall or other travel obstructions occurring in remote locations and preventing access are specifically documented by the owner and operator;

(iii) Level measurements are based on an average of two consecutive readings at both the beginning and ending of the period (that is, four measurements shall be taken, two consecutive measurements at the beginning and two consecutive measurements at the end of the period);

(iv) The equipment used is capable of measuring the level of regulated substance in the tank over the full range of the tank's height to the nearest one-eighth of an inch or a corresponding amount of gallons;

(v) The measurement of any water level in the bottom of the tank is made to the nearest one-eighth of an inch at least once a month;

(vi) If the variation between beginning and ending measurements exceeds the monthly standards in the following table, a leak may be occurring and the requirements of WAC 173-360-360 through 173-360-375 shall be followed:

Nominal Tank Capacity	Monthly Standard (average of four tests)
550 gallons or less	5 gallons
551-1,000 gallons	7 gallons
1,001-2000 gallons	13 gallons

(d) Tank tightness testing. Tank tightness testing (or another test of equivalent performance) shall be capable of detecting at least a 0.1 gallon per hour leak rate from any portion of the tank that routinely contains a regulated substance while accounting for the effects of thermal expansion or contraction of the regulated substance, vapor pockets, tank deformation, evaporation or condensation, and the location of the water table.

(e) Automatic tank gauging. Equipment for automatic tank gauging that tests for the loss of regulated substance and conducts inventory control shall meet the following requirements:

(i) The automatic product level monitor test can detect at least a 0.2 gallon per hour leak rate from any portion of the tank that routinely contains a regulated substance; and

(ii) Daily inventory control (or another test of equivalent performance) is conducted in accordance with the requirements of (a) of this subsection.

(f) Vapor monitoring. Testing or monitoring for vapors within the soil gas of the excavation zone shall meet the following requirements:

(i) The materials used as backfill are sufficiently porous (e.g., gravel, sand, crushed rock) to readily allow diffusion of vapors from releases into the excavation area;

(ii) The stored regulated substance, or a tracer compound placed in the tank system, is sufficiently volatile

(e.g., gasoline) to result in a vapor level that is detectable by the monitoring devices located in the excavation zone in the event of a release from the tank;

(iii) The measurement of vapors by the monitoring device is not rendered inoperative by the ground water, rainfall, or soil moisture or other known interferences so that a release could go undetected for more than thirty days;

(iv) The level of background contamination in the excavation zone will not interfere with the method used to detect releases from the tank;

(v) The vapor monitors are designed and operated to detect any significant increase in concentration above background of the regulated substance stored in the tank system, a component or components of that substance, or a tracer compound placed in the tank system;

(vi) In the UST excavation zone, the site is evaluated for its appropriateness for installation of vapor monitors to ensure compliance with the requirements of this subsection and to establish the number and positioning of monitoring wells that will detect releases within the excavation zone from any portion of the tank that routinely contains a regulated substance; and

(vii) Monitoring wells are clearly marked and secured to avoid unauthorized access and tampering.

Note: Monitoring wells must also comply with the minimum standards for construction, maintenance, and abandonment of wells specified in chapter 173-160 WAC.

(g) Ground water monitoring. Testing or monitoring for liquids on or in the ground water shall meet the following requirements:

(i) The regulated substance stored is immiscible in water and has a specific gravity of less than one;

(ii) Ground water is never more than twenty feet from the ground surface and the hydraulic conductivity of the soil(s) between the UST system and the monitoring wells or devices is not less than 0.01 cm/sec (e.g., the soil should consist of gravels, coarse to medium sands, coarse silts or other permeable materials);

(iii) The slotted portion of the monitoring well casing shall be designed to prevent migration of natural soils or filter pack into the well and to allow entry of regulated substance on the water table into the well under both high and low ground-water conditions;

(iv) Monitoring wells shall be sealed from the ground surface to the top of the filter pack;

(v) Monitoring wells or devices intercept the excavation zone or are as close to it as is technically feasible;

(vi) The continuous monitoring devices or manual methods used can detect the presence of at least one-eighth of an inch of free product on top of the ground water in the monitoring wells;

(vii) Within and immediately below the UST system excavation zone, the site is evaluated for its appropriateness for installation of ground water monitors to ensure compliance with the requirements in (g)(i) through (v) of this subsection and to establish the number and positioning of monitoring wells or devices that will detect releases from any portion of the tank that routinely contains a regulated substance; and

(viii) Monitoring wells are clearly marked and secured to avoid unauthorized access and tampering.

Note: Monitoring wells must also comply with the minimum standards for construction, maintenance, and abandonment of wells specified in chapter 173-160 WAC.

(h) Interstitial monitoring. Interstitial monitoring between the UST system and a secondary barrier immediately around or beneath it may be used, but only if the system is designed, constructed and installed to detect a leak from any portion of the tank that routinely contains a regulated substance and also meets one of the following requirements:

(i) For double-walled UST systems, the sampling or testing method can detect a release through the inner wall in any portion of the tank that routinely contains a regulated substance;

Note: The provisions outlined in the Steel Tank Institute's "Standard for Dual Wall Underground Storage Tanks" may be used as guidance for aspects of the design and construction of underground steel double-walled tanks.

(ii) For UST systems with a secondary barrier within the excavation zone, the sampling or testing method used can detect a release between the UST system and the secondary barrier;

(A) The secondary barrier around or beneath the UST system consists of artificially constructed material that is sufficiently thick and impermeable (at least 10^{-6} cm/sec for the regulated substance stored) to direct a release to the monitoring point and permit its detection;

(B) The barrier is compatible with the regulated substance stored so that a release from the UST system will not cause a deterioration of the barrier allowing a release to pass through undetected;

(C) For cathodically protected tanks, the secondary barrier shall be installed so that it does not interfere with the proper operation of the cathodic protection system;

(D) The ground water, soil moisture, or rainfall will not render the testing or sampling method used inoperative so that a release could go undetected for more than thirty days;

(E) The site is evaluated for its appropriateness for installation of interstitial monitors to ensure that the secondary barrier is always above the ground water and not in a twenty-five-year flood plain, unless the barrier and monitoring designs are for use under such conditions; and

(F) Monitoring wells are clearly marked and secured to avoid unauthorized access and tampering.

(iii) For tanks with an internally fitted liner, an automated device can detect a release between the inner wall of the tank and the liner, and the liner is compatible with the substance stored.

(i) Other methods. Any other type of release detection method, or combination of methods, can be used if:

(i) It can detect a 0.2 gallon per hour leak rate or a release of one hundred fifty gallons within a month with a probability of detection of 0.95 and a probability of false alarm of 0.05; or

(ii) The department or delegated agency may approve another method if the owner and operator can demonstrate that the method can detect a release as effectively as any of the methods allowed in (d) through (i) of this subsection. In comparing methods, the department or delegated agency shall consider the size of release that the method can detect and the frequency and reliability with which it can be detected. If the method is approved, the owner and operator shall comply with any conditions imposed by the department or delegated agency on its use to ensure the protection of human health and the environment.

(7) Tank services providers who perform any of the tank services described in this section shall certify that such services comply with the requirements of this section by submitting the appropriate checklist(s) to the department in accordance with WAC 173-360-630(12).

[Statutory Authority: Chapter 90.76 RCW. 91-22-020 (Order 91-26), § 173-360-345, filed 10/29/91, effective 11/29/91; 90-24-017, § 173-360-345, filed 11/28/90, effective 12/29/90.]

WAC 173-360-350 Methods of release detection for piping. (1) Any method of release detection for piping shall meet the performance requirements of this section, with any performance claims and their manner of determination described in writing by the equipment manufacturer or installer. In addition, methods used after December 22, 1990, except for methods permanently installed prior to that date, shall be capable of detecting the leak rate or quantity specified for that method in subsection (3)(a) and (b) of this section with a probability of detection of 0.95 and a probability of false alarm of 0.05. (That is, under test conditions, a method will correctly detect at least ninety-five of one hundred actual releases, and will falsely indicate a release no more than five times in one hundred tests of nonleaking systems.)

Note: The establishment of leak indication thresholds is a means of setting a standard for the equipment or method used. It is not in any way meant to imply that actual leak rates less than these limits are allowable. No release is acceptable, and any indication that a release may have occurred should be investigated in accordance with WAC 173-360-360.

(2) Underground piping that routinely contains regulated substances shall be monitored for releases in a manner that meets one of the following requirements:

(a) Pressurized piping. Underground piping that conveys regulated substances under pressure shall:

(i) Be equipped with an automatic line leak detector conducted in accordance with subsection (3)(a) of this section; and

(ii) Have an annual line tightness test conducted by a licensed tank services provider in accordance with subsection (3)(b) of this section or have monthly monitoring conducted in accordance with subsection (3)(c) of this section.

(b) Suction piping. Underground piping that conveys regulated substances under suction shall either have a line tightness test conducted at least every three years and in accordance with subsection (3)(b) of this section,

or use a monthly monitoring method conducted in accordance with subsection (3)(c) of this section. No release detection is required for suction piping that is designed and constructed to meet the following standards:

(i) The below-grade piping operates at less than atmospheric pressure;

(ii) The below-grade piping is sloped so that the contents of the pipe will drain back into the storage tank if the suction is released;

(iii) Only one check valve is included in each suction line;

(iv) The check valve is located directly below and as close as practical to the suction pump; and

(v) A method is provided that allows compliance with subsection (2)(b)(ii) through (iv) of this section to be readily determined.

(3) Each method of release detection for piping used to meet the requirements of WAC 173-360-335 shall be conducted in accordance with the following:

(a) Automatic line leak detectors. Methods which alert the operator to the presence of a leak by restricting or shutting off the flow of regulated substances through piping or triggering an audible or visual alarm may be used only if they detect leaks of three gallons per hour at ten pounds per square inch line pressure within one hour. An annual test of the operation of the leak detector shall be conducted in accordance with the manufacturer's requirements.

(b) Line tightness testing. A periodic test of piping may be conducted only if it can detect a 0.1 gallon per hour leak rate at one and one-half times the operating pressure.

(c) Applicable tank methods. Any of the methods in WAC 173-360-345 (6)(f) through (i) may be used if they are designed to detect a release from any portion of the underground piping that routinely contains regulated substances.

(4) Tank services providers who perform any of the tank services described in this section shall certify that such services comply with the requirements of this section by submitting the appropriate checklist(s) to the department in accordance with WAC 173-360-630(12).

[Statutory Authority: Chapter 90.76 RCW. 91-22-020 (Order 91-26), § 173-360-350, filed 10/29/91, effective 11/29/91; 90-24-017, § 173-360-350, filed 11/28/90, effective 12/29/90.]

WAC 173-360-370 Release investigation and confirmation steps. Unless corrective action is initiated in accordance with WAC 173-360-399, owners and operators shall immediately investigate and confirm all suspected releases of regulated substances requiring reporting under WAC 173-360-360 within seven days of discovery, or another reasonable time period specified by the department or delegated agency, using either the following steps or another procedure approved by the department or delegated agency:

(1) System test. Owners and operators shall have a licensed tank services provider conduct tests (according to the requirements for tightness testing in WAC 173-360-345 (6)(d) and 173-360-350 (3)(b)) that determine

whether a leak exists in any portions of the UST system that routinely contains a regulated substance, including the tank and the attached delivery piping, and in any connected tanks and piping that may or may not be in use. All such portions shall be tested either separately or together or in combinations thereof.

(a) Owners and operators shall have a licensed tank services provider repair, replace, upgrade, or close the UST system, and shall begin corrective action in accordance with WAC 173-360-399 if the test results for the system, tank, or delivery piping indicate that a leak exists.

(b) Further investigation is not required if the test results for the system, tank, and delivery piping do not indicate that a leak exists and if environmental contamination is not the basis for suspecting a release.

(c) Owners and operators shall conduct a site check in accordance with subsection (2) of this section if the test results for the system, tank, and delivery piping do not indicate that a leak exists but environmental contamination is the basis for suspecting a release.

(2) Site check. Owners and operators shall have a person registered by the department to perform site assessments, as specified in WAC 173-360-610, sample for the presence of a release. Such samples shall be taken, analyzed, and results reported to the department or delegated agency in accordance with the department's guidance document for site checks and site assessments, or as otherwise directed by the department or delegated agency, where contamination is most likely to be present at the UST site.

(a) If the site check results indicate that a release has occurred, owners and operators shall report to the department or delegated agency in accordance with WAC 173-360-372 and begin corrective action in accordance with WAC 173-360-399.

(b) If the site check results do not indicate that a release has occurred, further investigation is not required.

(3) Tank services providers who perform any of the tank services described in this section, and persons who perform site checks, shall certify that such services or site checks, as applicable, comply with the requirements of this section by submitting the appropriate checklist(s) to the department in accordance with WAC 173-360-630(12).

[Statutory Authority: Chapter 90.76 RCW. 91-22-020 (Order 91-26), § 173-360-370, filed 10/29/91, effective 11/29/91; 90-24-017, § 173-360-370, filed 11/28/90, effective 12/29/90.]

WAC 173-360-380 Temporary closure of UST systems. (1) When an UST system is temporarily closed, owners and operators shall continue operation and maintenance of corrosion protection in accordance with WAC 173-360-320, and any release detection in accordance with WAC 173-360-330 through 173-360-355. WAC 173-360-360 through 173-360-375 and 173-360-399 shall be complied with if a release is suspected or confirmed. However, release detection is not required as long as the UST system is empty. The UST system is empty when all materials have been removed

using commonly employed practices so that no more than 2.5 centimeters (one inch) of residue, or 0.3 percent by weight of the total capacity of the UST system, remain in the system.

(2) When an UST system is temporarily closed for three months or more, owners and operators shall also comply with the following requirements:

(a) Leave vent lines open and functioning; and

(b) Cap and secure all other lines, pumps, entryways, and ancillary equipment.

(3) Any UST system temporarily closed for three months or more shall be tightness tested by a licensed tank services provider in accordance with WAC 173-360-345 (6)(d) and 173-360-350 (3)(b) prior to being put back into service unless the system is subject to and in compliance with the release detection requirements of WAC 173-360-330.

(4) When an UST system is temporarily closed for more than twelve months, owners and operators shall have a licensed tank services provider permanently close the UST system if it does not either meet the performance standards in WAC 173-360-305 for new UST systems or the upgrading requirements in WAC 173-360-310 (2) and (3). Such UST systems shall be permanently closed in accordance with WAC 173-360-385 through 173-360-398 at the end of the twelve-month period unless the department or delegated agency provides an extension before expiration of the twelve-month temporary closure period. Owners and operators shall have a site assessment completed in accordance with WAC 173-360-390 before such an extension is applied for.

(5) Tank services providers who perform any of the tank services described in this section, and persons who perform site assessments, shall certify that such services and site assessments, as applicable, comply with the requirements of this chapter by submitting the appropriate checklist(s) to the department in accordance with WAC 173-360-630(12).

(6) Any active permits for those systems being temporarily closed shall be returned to the department within thirty days of completion of the temporary closure activities.

[Statutory Authority: Chapter 90.76 RCW. 91-22-020 (Order 91-26), § 173-360-380, filed 10/29/91, effective 11/29/91; 90-24-017, § 173-360-380, filed 11/28/90, effective 12/29/90.]

WAC 173-360-385 Permanent closure and change-in-service. (1) At least thirty days before beginning either permanent closure or a change-in-service under subsections (2) and (3) of this section, or within another reasonable time period determined by the department or delegated agency, owners and operators shall notify the department or delegated agency in writing of their intent to permanently close or make the change-in-service, unless such action is in response to corrective action. The site assessment required under WAC 173-360-390 shall be performed after notifying the department or delegated agency but before completion of the permanent closure or a change-in-service.

(2) Permanent closure shall be completed by a licensed tank services provider within sixty days after expiration of the thirty-day notice, unless a written request for an extension, explaining the reason for the request, is approved by the department or delegated agency. Any UST system not permanently closed by a compliance date that the UST system is subject to, shall be in compliance with the requirement associated with the compliance date, including the payment of fees. Any UST system not in compliance with any such requirement will be subject to the penalties described in WAC 173-360-170.

(3) To permanently close an UST system, the tank services provider shall empty and clean the tank by removing all liquids and accumulated sludges.

Note: Any sludges removed must also be designated and disposed of in accordance with chapter 173-303 WAC.

(4) All tanks taken out of service permanently shall also be either removed from the ground or filled with an inert solid material. All piping shall either be capped (except any vent lines) or removed from the ground.

(5) Continued use of an UST system to store a non-regulated substance is considered a change-in-service. Before a change-in-service, owners and operators shall have a licensed tank services provider empty and clean the tank by removing all liquid and accumulated sludge, and shall have a site assessment conducted in accordance with WAC 173-360-390.

Note: The following cleaning and closure procedures may be used to comply with this section:

(A) American Petroleum Institute Recommended Practice 1604, "Removal and Disposal of Used Underground Petroleum Storage Tanks";

(B) American Petroleum Institute Publication 2015, "Cleaning Petroleum Storage Tanks";

(C) American Petroleum Institute Recommended Practice 1631, "Interior Lining of Underground Storage Tanks," may be used as guidance for compliance with this section; and

(D) The National Institute for Occupational Safety and Health "Criteria for a Recommended Standard...Working in Confined Space" may be used as guidance for conducting safe closure procedures at some hazardous substance tanks.

(5) Tank services providers who perform any of the tank services described in this section, and persons who perform site assessments, shall certify that such services or site assessments, as applicable, comply with the requirements of this section by submitting the appropriate checklist(s) to the department in accordance with WAC 173-360-630(12). Any active tank permits for the systems being closed shall be returned to the department within thirty days of closure activities.

[Statutory Authority: Chapter 90.76 RCW. 91-22-020 (Order 91-26), § 173-360-385, filed 10/29/91, effective 11/29/91; 90-24-017, § 173-360-385, filed 11/28/90, effective 12/29/90.]

WAC 173-360-390 Site assessment at closure or change-in-service. (1) Before permanent closure or a

change-in-service is completed, except as specified in subsections (2), (3), and (4) of this section, owners and operators shall have a person registered by the department to perform site assessments, as specified in WAC 173-360-610, sample for the presence of a release. Such samples shall be taken, analyzed, and the results reported to the department or delegated agency in accordance with the department's guidance document for site assessments, or as otherwise directed by the department or delegated agency, where contamination is most likely to be present at the UST site.

(2) The requirements of this section are satisfied if one of the external release detection methods allowed in WAC 173-360-345 (6)(f) and (g) is employed for the UST system being closed or undergoing a change-in-service, if the following conditions are met:

(a) The external release detection method is operating, at the time of closure or change-in-service, in accordance with the requirements of WAC 173-360-345 (6)(f) or (g), as applicable; and

(b) A report is provided to the department with sufficient information to clearly demonstrate that:

(i) The external release detection method employed was appropriately designed, installed, and operated to adequately detect any releases from the UST system; and

(ii) No release was detected from the UST system.

(3) If the department determines that the conditions specified in subsection (2)(a) and (b) of this section have not been satisfactorily met, the department may require that a site assessment be performed for the site.

(4) If contaminated soils, contaminated ground water, or free product is discovered under subsection (1) of this section, or by any other manner, owners and operators shall report to the department or delegated agency in accordance with WAC 173-360-372 and take appropriate action in accordance with WAC 173-360-399.

(5) Persons who perform site assessments shall certify that such site assessments comply with the requirements of this section by submitting the appropriate checklist to the department in accordance with WAC 173-360-630(12).

[Statutory Authority: Chapter 90.76 RCW. 91-22-020 (Order 91-26), § 173-360-390, filed 10/29/91, effective 11/29/91; 90-24-017, § 173-360-390, filed 11/28/90, effective 12/29/90.]

WAC 173-360-395 Applicability to previously closed UST systems. When directed by the department or delegated agency, the owner or operator of an UST system permanently closed or abandoned before December 22, 1988, shall have a person registered to perform site assessments assess the site and shall have a licensed tank services provider close the UST system in accordance with WAC 173-360-380 through 173-360-398 if releases from the UST may, in the judgment of the department or delegated agency, pose a current or potential threat to human health and the environment.

[Statutory Authority: Chapter 90.76 RCW. 91-22-020 (Order 91-26), § 173-360-395, filed 10/29/91, effective 11/29/91; 90-24-017, § 173-360-395, filed 11/28/90, effective 12/29/90.]

WAC 173-360-403 Compliance dates. Owners of petroleum underground storage tanks are required to comply with the requirements of WAC 173-360-400 through 173-360-499 by the following dates:

(1) All petroleum marketing firms owning 1,000 or more USTs and all other UST owners that report a tangible net worth of twenty million dollars or more to the United States Securities and Exchange Commission (SEC), Dun and Bradstreet, the Energy Information Administration, or the Rural Electrification Administration; January 24, 1989, except that compliance with WAC 173-360-410(2) is required by July 24, 1989.

(2) All petroleum marketing firms owning 100-999 USTs; October 26, 1989.

(3) All petroleum marketing firms owning a combined total of 13-99 USTs which are located at more than one facility; April 26, 1991.

(4) All petroleum UST owners not described in subsections (1), (2), or (3) of this section, including all local government entities; the same as the requirements and deadlines adopted under 40 C.F.R. 280.91.

[Statutory Authority: Chapter 90.76 RCW. 91-22-020 (Order 91-26), § 173-360-403, filed 10/29/91, effective 11/29/91; 90-24-017, § 173-360-403, filed 11/28/90, effective 12/29/90.]

WAC 173-360-473 Appendix B--Guarantee.

GUARANTEE

Guarantee made this [date] by name of guaranteeing entity, a business entity organized under the laws of (name of state), herein referred to as guarantor, to the Washington state department of ecology and to any and all third parties, and obligees, on behalf of [owner or operator] of [business address].

Recitals.

(1) Guarantor meets or exceeds the financial test criteria of WAC 173-360-413 (2) or (3) and (4) and agrees to comply with the requirements for guarantors as specified in WAC 173-360-416(2).

(2) [Owner or operator] owns or operates the following underground storage tank(s) covered by this guarantee: [List the number of tanks at each facility and the name(s) and address(es) of the facility(ies) where the tanks are located. If more than one instrument is used to assure different tanks at any one facility, for each tank covered by this instrument, list the tank identification number provided in the notification submitted pursuant to WAC 173-360-200, and the name and address of the facility.] This guarantee satisfies WAC 173-360-400 through 173-360-499 requirements for assuring funding for [insert: "Taking corrective action" and/or "compensating third parties for bodily injury and property damage caused by" either "sudden accidental releases" or "nonsudden accidental releases" or "accidental releases"; if coverage is different for different tanks or locations, indicate the type of coverage applicable to each tank or location] arising from operating the above-identified underground storage tank(s) in the amount of [insert dollar amount] per occurrence and [insert dollar amount] annual aggregate.

(3) [Insert appropriate phrase: "On behalf of our subsidiary" (if guarantor is corporate parent of the owner or

operator); "On behalf of our affiliate" (if guarantor is a related firm of the owner or operator); or "Incident to our business relationship with" (if guarantor is providing the guarantee as an incident to a substantial business relationship with owner or operator)] [owner or operator], guarantor guarantees to the Washington state department of ecology and to any and all third parties that:

In the event that [owner or operator] fails to provide alternate coverage within 60 days after receipt of a notice of cancellation of this guarantee and the director of the Washington state department of ecology has determined or suspects that a release has occurred at an underground storage tank covered by this guarantee, the guarantor, upon instructions from the director, shall fund a standby trust fund in accordance with the provisions of WAC 173-360-453, in an amount not to exceed the coverage limits specified above.

In the event that the director determines that [owner or operator] has failed to perform corrective action for releases arising out of the operation of the above-identified tank(s) in accordance with WAC 173-360-399, the guarantor, upon written instructions from the director, shall fund a standby trust in accordance with the provisions of WAC 173-360-453, in an amount not to exceed the coverage limits specified above.

If [owner or operator] fails to satisfy a judgment or award based on a determination of liability for bodily injury or property damage to third parties caused by ["sudden" and/or "nonsudden"] accidental releases arising from the operation of the above-identified tank(s), or fails to pay an amount agreed to in settlement of a claim arising from or alleged to arise from such injury or damage, the guarantor, upon written instructions from the director, shall fund a standby trust in accordance with the provisions of WAC 173-360-453 to satisfy such judgment(s), award(s), or settlement agreement(s) up to the limits of coverage specified above.

(4) Guarantor agrees that if, at the end of any fiscal year before cancellation of this guarantee, the guarantor fails to meet the financial test criteria of WAC 173-360-413 (2) or (3) and (4), guarantor shall send within 120 days of such failure, by certified mail, notice to [owner or operator]. The guarantee will terminate 120 days from the date of receipt of the notice by [owner or operator], as evidenced by the return receipt.

(5) Guarantor agrees to notify [owner or operator] by certified mail of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code, naming guarantor as debtor, within 10 days after commencement of the proceeding.

(6) Guarantor agrees to remain bound under this guarantee notwithstanding any modification or alteration of any obligation of [owner or operator] pursuant to chapter 173-360 WAC.

(7) Guarantor agrees to remain bound under this guarantee for so long as [owner or operator] shall comply with the applicable financial responsibility requirements of WAC 173-360-400 through 173-360-499 for

the above-identified tank(s), except that guarantor may cancel this guarantee by sending notice by certified mail to [owner or operator], such cancellation to become effective no earlier than 120 days after receipt of such notice by [owner or operator], as evidenced by the return receipt.

(8) The guarantor's obligation does not apply to any of the following:

(a) Any obligation of [insert owner or operator] under a workers' compensation, disability benefits, or unemployment compensation law or other similar law;

(b) Bodily injury to an employee of [insert owner or operator] arising from, and in the course of, employment by [insert owner or operator];

(c) Bodily injury or property damage arising from the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle, or watercraft;

(d) Property damage to any property owned, rented, loaned to, in the care, custody, or control of, or occupied by [insert owner or operator] that is not the direct result of a release from a petroleum underground storage tank;

(e) Bodily damage or property damage for which [insert owner or operator] is obligated to pay damages by reason of the assumption of liability in a contract or agreement other than a contract or agreement entered into to meet the requirements of WAC 173-360-406.

(9) Guarantor expressly waives notice of acceptance of this guarantee by the Washington state department of ecology, by any or all third parties, or by [owner or operator].

I hereby certify that the wording of this guarantee is identical to the wording specified in WAC 173-360-473 as such regulations were constituted on the effective date shown immediately below.

Effective date:

[Name of guarantor]

[Authorized signature for guarantor]

[Name of person signing]

[Title of person signing]

Signature of witness or notary:

[Statutory Authority: Chapter 90.76 RCW. 91-22-020 (Order 91-26), § 173-360-473, filed 10/29/91, effective 11/29/91; 90-24-017, § 173-360-473, filed 11/28/90, effective 12/29/90.]

Reviser's note: The brackets and enclosed material in the text of the above section occurred in the copy filed by the agency.

WAC 173-360-480 Appendix D--Certificate of insurance.

CERTIFICATE OF INSURANCE

Name: [Name of each covered location]

Address: [Address of each covered location]

Policy number:

Endorsement (if applicable):

Period of coverage: [Current policy period]

Name of [insurer or risk retention group]:

Address of [insurer or risk retention group]:

Name of insured:

Address of insured:

Certification:

1. [Name of insurer or risk retention group], [the "insurer" or "group"], as identified above, hereby certifies that it has issued liability insurance covering the following underground storage tank(s):

[List the number of tanks at each facility and the name(s) and address(es) of the facility(ies) where the tanks are located. If more than one instrument is used to assure different tanks at any one facility, for each tank covered by this instrument, list the tank identification number provided in the notification submitted pursuant to WAC 173-360-200, and the name and address of the facility].

for [insert: "Taking corrective action" and/or "compensating third parties for bodily injury and property damage caused by" either "sudden accidental releases" or "nonsudden accidental releases" or "accidental releases"]; in accordance with and subject to the limits of liability, exclusions, conditions, and other terms of the policy; if coverage is different for different tanks or locations, indicate the type of coverage applicable to each tank or location] arising from operating the underground storage tank(s) identified above.

The limits of liability are [insert the dollar amount of the "each occurrence" and "annual aggregate" limits of the insurer's or group's liability; if the amount of coverage is different for different types of coverage or for different underground storage tanks or locations, indicate the amount of coverage for each type of coverage and/or for each underground storage tank or location], exclusive of legal defense costs, which are subject to a separate limit under the policy. This coverage is provided under [policy number]. The effective date of said policy is [date].

2. The ["insurer" or "group"] further certifies the following with respect to the insurance described in Paragraph 1:

a. Bankruptcy or insolvency of the insured shall not relieve the ["insurer" or "group"] of its obligations under the policy to which this certificate applies.

b. The ["insurer" or "group"] is liable for the payment of amounts within any deductible applicable to the policy to the provider of corrective action or a damaged third-party, with a right of reimbursement by the insured for any such payment made by the ["insurer" or "group"]. This provision does not apply with respect to that amount of any deductible for which coverage is demonstrated under another mechanism or combination of mechanisms as specified in WAC 173-360-413 through 173-360-433.

c. Whenever requested by the director of the Washington state department of ecology, the ["insurer" or "group"] agrees to furnish the director a signed duplicate original of the policy and all endorsements.

d. Cancellation or any other termination of the insurance by the ["insurer" or "group"], except for nonpayment of premium or misrepresentation by the insured, will be effective only upon written notice and only after the expiration of 60 days after a copy of such written notice is received by the insured. Cancellation for nonpayment of premium or misrepresentation by the insured will be effective only upon written notice and only after

expiration of a minimum of 10 days after a copy of such notice is received by the insured.

[Insert for claims-made policies:

e. The insurance covers claims otherwise covered by the policy that are reported to the ["insurer" or "group"] within six months of the effective date of the cancellation or nonrenewal of the policy except where the new or renewed policy has the same retroactive date or a retroactive date earlier than that of the prior policy, and which arise out of any covered occurrence that commenced after the policy retroactive date, if applicable, and prior to such policy renewal or termination date. Claims reported during such extended reporting period are subject to the terms, conditions, limits, including limits of liability, and exclusions of the policy.]

I hereby certify that the wording of this instrument is identical to the wording in WAC 173-360-480 and that the ["insurer" or "group"] is ["licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more states"].

[Signature of authorized representative of insurer]

[Type name]

[Title], authorized representative of [name of insurer or risk

retention group]

[Address of representative]

[Statutory Authority: Chapter 90.76 RCW. 91-22-020 (Order 91-26), § 173-360-480, filed 10/29/91, effective 11/29/91; 90-24-017, § 173-360-480, filed 11/28/90, effective 12/29/90.]

Reviser's note: The brackets and enclosed material in the text of the above section occurred in the copy filed by the agency.

WAC 173-360-610 Scope. (1) WAC 173-360-610 through 173-360-690 establishes requirements for:

(a) Registration and licensing of firms that perform services on underground storage tank systems;

(b) Examination, qualification, and licensing of persons who supervise the performance of underground storage tank system service;

(c) Examination and licensing of persons conducting underground storage tank system inspections for determination of compliance with the state underground storage tank regulations; and

(d) Administration and enforcement of these rules by the department.

(2) Except as specified in WAC 173-360-655, 173-360-610 through 173-360-690 applies to any person or firm who performs the installation, retrofitting, decommissioning, testing, site check, site assessment, and inspection for compliance with state regulations, by any person, of underground storage tanks regulated by chapter 90.76 RCW.

(3) A site assessment or site check shall only be performed by a hydrogeologist, geologist, licensed professional engineer, professional soil scientist, certified ground water professional or other person whose experience, education, and/or training meet criteria established by the department. A person performing site

assessments and site checks must register with the department on a form provided by the department. No license is required for this activity.

(4) The requirements of this licensing program do not apply to persons performing the activities specified in subsection (2) of this section for tanks which are exempt or deferred from the UST rule, as provided in WAC 173-360-110 (1) and (2).

[Statutory Authority: Chapter 90.76 RCW. 91-22-020 (Order 91-26), § 173-360-610, filed 10/29/91, effective 11/29/91; 90-24-017, § 173-360-610, filed 11/28/90, effective 12/29/90.]

WAC 173-360-630 Registration and licensing of tank service providers. (1) Only firms that are licensed by the department shall perform tank services in the state of Washington.

(2) Application for a license shall be accomplished by:

(a) Completing an application form provided by the department, including submission of the following information to the department:

(i) The name, address, and telephone number of the firm;

(ii) The nature of the tank services to be offered;

(iii) A summary of the recent project history of the firm (the two-year period immediately preceding the application) including the number of projects completed by the firm in each tank services category and identification of any other industry or government licenses held by the firm related to specific tank services;

(iv) Identifying the names of employees or principals responsible for on-site project supervision; and

(b) Including a signed statement that certifies that:

"I (name), am the chief executive officer of (company) and do hereby certify that I will comply with the applicable laws, and rules, and procedures pertaining to the regulation of underground storage tanks in the state of Washington and will direct the employees and principals of this company to perform the tank services rendered by this company in a manner that is consistent with these requirements."

(3) Only tank services providers who have obtained a license from the department may install, retrofit, test, decommission, or inspect for the purpose of determining compliance with state regulations, an underground storage tank system in the state of Washington.

(4) An application for a tank services provider license must be submitted to the department and must include:

(a) The information required by subsection (2)(a) and (b) of this section;

(b) A list of employees licensed by the department to supervise tank services, and identification of the specific tank services for which they are licensed; the date the employee received a license from the department; and the license number of the employee.

(5) The department will review the license application for completeness. If the application is incomplete, the department shall notify the applicant of the deficiencies. The department shall deny, in writing, a license to an applicant who has not satisfied the license application requirements. The department shall issue a license to the applicant after approving the application.

(6) The department shall issue licenses for a period not to exceed two years.

(7) Renewals:

(a) License renewals must be applied for in the same manner as is required for an initial license, pursuant to subsection (4) of this section.

(b) The complete license renewal application shall be submitted to the department no later than thirty days prior to the expiration date of the current license.

(8) The department may suspend or revoke a license if the tank services provider:

(a) Fraudulently obtains or attempts to obtain a license;

(b) Fails at any time to satisfy the requirements for a license or comply with any rules or procedures adopted by the department;

(c) Fails to meet any applicable state or federal standard relating to the service performed under the license; or

(d) Fails to employ and designate a licensed supervisor for each underground storage tank project which is directly overseen by the tank services provider.

(9) A tank services provider who has a license suspended or revoked may reapply for a license after demonstrating to the department that the cause of the revocation has been resolved.

(10) In the event a tank services provider no longer employs a supervisor licensed to perform a particular tank service, the tank services provider must stop providing this service on any regulated underground storage tank system. Work involving this service shall not start until a supervisor licensed for the particular service is again employed by the provider and written notice of the hiring of a licensed supervisor is received by the department.

(11) Any tank services provider licensed by the department under the provisions of this chapter shall:

(a) Comply with WAC 173-360-600 through 173-360-690;

(b) Maintain a current address on file with the department; and

(c) Comply with all federal and state regulations and procedures when performing tank services.

(12)(a) A checklist must be completed for each regulated activity performed. The service provider shall submit the checklist to the department within thirty days following the completion of an underground storage tank installation, retrofit, decommissioning, or test, using the appropriate form provided by the department. The checklist must be signed by the owner or operator, by an executive officer of the service provider firm, or his or her designee, and by the licensed tank services supervisor.

(b) A checklist must be completed for each site check or site assessment performed. The person performing the site check or site assessment shall submit the checklist to the department within thirty days following the completion of the site check or site assessment. A checklist for a site check or site assessment must be signed by the person registered to perform site assessments (rather than a licensed supervisor) and an executive officer of

the firm or his or her designee, and the tank owner or operator.

(c) The firm shall submit an as-built site plan, showing the location of completed tank system installations or retrofitted tank system, including adjacent structures, if present. The as-built site plan shall be submitted on the appropriate form provided by the department, or shall be an 8 1/2 inch by 11 inch single page drawing.

(13) A licensed tank services provider, or person qualified to conduct a site assessment or site check shall report to the department and the tank owner or operator the existence of any confirmed release from an underground tank system that poses a threat to human health and the environment. This report shall be provided to the tank owner or operator immediately, and to the department within seventy-two hours of the discovery of the condition. If the owner or operator are not immediately available, the report should be made immediately to the department.

[Statutory Authority: Chapter 90.76 RCW. 91-22-020 (Order 91-26), § 173-360-630, filed 10/29/91, effective 11/29/91; 90-24-017, § 173-360-630, filed 11/28/90, effective 12/29/90.]

WAC 173-360-650 Examination and licensing of tank services supervisors. (1) A licensed tank services supervisor shall be present on site at all times tank service activities are being carried out at a tank installation, retrofit, testing, or decommissioning project unless otherwise determined by the department. These tasks may include but may not be limited to:

(a) Preparing the excavation immediately prior to receiving backfill and placement of the tank into the excavation;

(b) Any movement of the tank vessel, including but not limited to transferring the vessel from the vehicle used to transport it to the project site;

(c) Setting the tank and its associated piping into the excavation, including placing any anchoring devices and strapping, if any, and backfilling to the level of the tank;

(d) Placing and connecting the piping system to the tank vessel;

(e) Installing cathodic protection systems;

(f) All pressure testing of the underground storage tank system, including associated piping, performed during the installation or retrofitting;

(g) Completing the backfill and filling of the installation;

(h) Evaluating preparation for and installing any tank lining system;

(i) Tank purging or inerting;

(j) Removal of the tank, removal of sludge from the tank, and cleaning of the tank;

(k) Removing flammable vapors from tanks;

(l) Excavating around tanks for removal;

(m) Field installation and operational testing of cathodic protection systems;

(n) Inspecting of existing tank and piping systems for corrosion;

(o) Tank or line tightness testing;

(p) Inspection of existing tanks for structural integrity; and

(q) Inspection of existing tank and piping systems for the purpose of determining compliance with the Washington state underground storage tank regulations; and

(r) Installation of release detection equipment.

(2) If a licensed supervisor, or person registered as a site assessor, obtains knowledge, in the course of performing regulated activities, that a regulated underground storage tank has not been registered with the department, or is otherwise out of compliance with the requirements of this chapter, the individual shall inform the tank owner or operator of the notification requirement and any other applicable requirements.

(3) Only persons licensed by the department under this section may perform the duties of a tank services supervisor.

(4) To obtain a license from the department as a tank services supervisor, a person shall take and pass a qualifying examination approved by the department.

(5) Twice each year the department shall offer a qualifying examination for any person who wishes to become licensed to install, remove, test, or retrofit underground storage tank systems. Not less than thirty days prior to offering an examination, the department shall prepare and make available to interested persons, a study guide which may include sample examination questions. The department shall develop and administer the qualifying examinations in a manner consistent with the objectives of this section.

(6) An application for a supervisor examination and license shall be submitted to the department on a form provided at least forty-five days prior to the date of the qualifying examination.

(7) A tank services supervisor license is valid for a period not to exceed two years after the date of issue. Upon issuance of a supervisor's license, the department shall issue an identification card showing the license number and license expiration date to the successful applicant.

The supervisor's license identification card shall be available for inspection at any project site supervised by the licensee.

(8) License renewals shall be applied for in the same manner as the original license, including taking a qualifying examination.

(9) The department may suspend or revoke a supervisor's license for failure to comply with any state or federal law, regulation, or procedure pertaining to underground storage tanks.

(10) If a supervisor's license is revoked, that person may not apply for another supervisor license prior to ninety days after the revocation date.

(11) The requirements of this section are in addition to and not in lieu of any other licensing and registration requirement imposed by other laws or regulations.

[Statutory Authority: Chapter 90.76 RCW. 91-22-020 (Order 91-26), § 173-360-650, filed 10/29/91, effective 11/29/91; 90-24-017, § 173-360-650, filed 11/28/90, effective 12/29/90.]

WAC 173-360-655 Examination and licensing of persons who perform inspections. Only persons who have

the appropriate supervisor license shall conduct underground storage tank system inspections for the purpose of determining compliance with the Washington state underground storage tank regulations. Persons wishing to obtain such a license shall comply with the requirements of WAC 173-360-650. This requirement applies only to inspectors who are employed by the department or by an agency which has received delegation of regulatory authority from the department.

[Statutory Authority: Chapter 90.76 RCW. 91-22-020 (Order 91-26), § 173-360-655, filed 10/29/91, effective 11/29/91; 90-24-017, § 173-360-655, filed 11/28/90, effective 12/29/90.]

WAC 173-360-695 Inactive license. An individual or firm may voluntarily deactivate their license by notifying the department in writing and requesting that the license be made inactive.

[Statutory Authority: Chapter 90.76 RCW. 91-22-020 (Order 91-26), § 173-360-695, filed 10/29/91, effective 11/29/91.]

Chapter 173-400 WAC GENERAL REGULATIONS FOR AIR POLLUTION SOURCES

WAC

173-400-010	Policy and purpose.
173-400-020	Applicability.
173-400-030	Definitions.
173-400-040	General standards for maximum emissions.
173-400-050	Emission standards for combustion and incineration units.
173-400-060	Emission standards for general process units.
173-400-070	Emission standards for certain source categories.
173-400-075	Emission standards for sources emitting hazardous air pollutants.
173-400-100	Registration.
173-400-105	Records, monitoring, and reporting.
173-400-110	New source review (NSR).
173-400-115	Standards of performance for new sources.
173-400-120	Bubble rules.
173-400-131	Issuance of emission reduction credits.
173-400-136	Use of emission reduction credits.
173-400-141	Prevention of significant deterioration (PSD).
173-400-151	Retrofit requirements for visibility protection.
173-400-161	Compliance schedules.
173-400-171	Public involvement.
173-400-180	Variance.
173-400-190	Requirements for nonattainment areas.
173-400-200	Creditable stack height and dispersion techniques.
173-400-205	Adjustment for atmospheric conditions.
173-400-210	Emission requirements of prior jurisdictions.
173-400-220	Requirements for board members.
173-400-230	Regulatory actions.
173-400-240	Criminal penalties.
173-400-250	Appeals.
173-400-260	Conflict of interest.

WAC 173-400-010 Policy and purpose. (1) It is the policy of the department of ecology (ecology) under the authority vested in it by chapter 43.21A RCW to provide for the systematic control of air pollution from air contaminant sources and for the proper development of the state's natural resources.

(2) It is the purpose of this chapter to establish technically feasible and reasonably attainable standards and

to establish rules generally applicable to the control and/or prevention of the emission of air contaminants.

[Statutory Authority: Chapter 70.94 RCW. 91-05-064 (Order 90-06), § 173-400-010, filed 2/19/91, effective 3/22/91. Statutory Authority: Chapters 43.21A and 70.94 RCW. 83-09-036 (Order DE 83-13), § 173-400-010, filed 4/15/83; Order DE 76-38, § 173-400-010, filed 12/21/76. Formerly WAC 18-04-010.]

WAC 173-400-020 Applicability. (1) The provisions of this chapter shall apply state-wide.

(2) An authority may enforce this chapter and may also adopt standards or requirements. These standards or requirements may not be less stringent than the current state air quality rules and may be more stringent than the current regulations. Unless properly delegated by ecology, authorities do not have jurisdiction over the following sources:

(a) Specific source categories over which the state, by separate regulation, has assumed or hereafter does assume jurisdiction.

(b) Automobiles, trucks, aircraft.

(c) Those sources under the jurisdiction of the energy facility site evaluation council.

[Statutory Authority: Chapter 70.94 RCW. 91-05-064 (Order 90-06), § 173-400-020, filed 2/19/91, effective 3/22/91. Statutory Authority: Chapters 43.21A and 70.94 RCW. 83-09-036 (Order DE 83-13), § 173-400-020, filed 4/15/83. Statutory Authority: RCW 70.94.331. 80-11-059 (Order DE 80-14), § 173-400-020, filed 8/20/80. Statutory Authority: RCW 43.21A.080 and 70.94.331. 79-06-012 (Order DE 78-21), § 173-400-020, filed 5/8/79; Order DE 76-38, § 173-400-020, filed 12/21/76. Formerly WAC 18-04-020.]

WAC 173-400-030 Definitions. The following definitions will apply unless a different meaning is clearly required by context:

(1) "Actual emissions" relating to a particular date means the average rate, in weight per unit time of emitted pollutant during the immediately preceding two-year period of normal operation. Ecology or the authority may allow or require the use of an alternative time period if it is more representative of normal operation. Actual emissions shall be calculated using the unit's actual operating hours, production rates, and types of materials processed, stored, or burned during the selected time period.

Ecology or the authority may presume that unit-specific allowable emissions, which incorporate limits on hours of operation or production rate, are equivalent to the actual emissions of the unit.

(2) "Administrator" shall refer to ecology or the authority unless specifically defined otherwise.

(3) "Adverse impact on visibility" means visibility impairment which interferes with the management, protection, preservation, or enjoyment of the visitor's visual experience of the Federal Class I area. This determination must be made on a case-by-case basis taking into account the geographic extent, intensity, duration, frequency, and time of visibility impairment, and how these factors correlate with (a) times of visitor use of the Federal Class I area, and (b) the frequency and timing of natural conditions that reduce visibility. This term does not include effects on integral vistas.

(4) "Air contaminant" means dust, fumes, mist, smoke, other particulate matter, vapor, gas, odorless substance, or any combination thereof. "Air pollutant" means the same as "air contaminant."

(5) "Air pollution" means the presence in the outdoor atmosphere of one or more air contaminants in sufficient quantities, and of such characteristics and duration as is, or is likely to be, injurious to human health, plant or animal life, or property, or which unreasonably interferes with enjoyment of life and property.

(6) "Allowable emissions" means the emission rate calculated using the maximum rated capacity of the source (unless the source is limited in production rate or hours of operation, or both, by an applicable federally enforceable regulatory order) and the most stringent of (a), (b), or (c) of this subsection. Physical and process limitations must be considered in determining maximum rated capacity.

(a) Standards as set forth in 40 CFR Part 60 and Part 61, if applicable to the source; or

(b) The applicable state implementation plan emission limitation; or

(c) The emission rate specified by an applicable federally enforceable regulatory order.

(7) "Ambient air" means the surrounding outside air.

(8) "Ambient air quality standard" means an established concentration, exposure time, and frequency of occurrence of air contaminant(s) in the ambient air which shall not be exceeded.

(9) "Authority" means an air pollution control authority activated pursuant to chapter 70.94 RCW that has jurisdiction over the subject source. (This may be delegated by ecology.)

(10) "Best available control technology (BACT)" means an emission limitation (including a visible emission standard) based on the maximum degree of reduction for each air pollutant subject to this regulation which would be emitted from any proposed new or modified source which the permitting authority, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such sources or modification through application of production processes, available methods, systems, and techniques, including fuel cleaning or treatment or innovative fuel combustion techniques for control of such air pollutant. In no event shall application of the best available technology result in emissions of any air pollutant which would exceed the emissions allowed by any applicable standard under 40 CFR Part 60 and Part 61. If the reviewing authority determines that technological or economic limitations on the application of measurement methodology to a particular class of sources would make the imposition of an emission standard infeasible, it may instead prescribe a design, equipment, work practice or operational standard, or combination thereof, to meet the requirement of BACT. Such standard shall, to the degree possible, set forth the emission reduction achievable by implementation of such design, equipment, work practice or operation and shall provide for compliance by means which achieve equivalent results. The requirement of RCW 70.94.152 that a

new source will provide "all known available and reasonable methods of emission control" is interpreted to mean the same as best available control technology.

(11) "Best available retrofit technology (BART)" means any emission limitation based on the degree of reduction achievable through the application of the best system of continuous emission reduction for each pollutant which is emitted by source. The emission limitation must be established, on a case-by-case basis, taking into consideration the technology available, the costs of compliance, the energy and nonair quality environmental impacts of compliance, any pollution control equipment in use or in existence at the source, the remaining useful life of the source, and the degree of improvement in visibility which may reasonably be anticipated to result from the use of such technology. If an emission limitation is not feasible, a design, equipment, work practice, operational standard, or combination thereof, may be required. Such standards shall, to the degree possible, set forth the emission reductions achieved and provide for compliance by prescribing appropriate conditions in a regulatory order.

(12) "Bubble" means a set of emission limits which allows an increase in emissions from a given emissions unit(s) in exchange for a decrease in emissions from another emissions unit(s), pursuant to RCW 70.94.155 and WAC 173-400-120.

(13) "Capacity factor" means the ratio of the average load on equipment or a machine for the period of time considered, to the manufacturer's capacity rating of the machine or equipment.

(14) "Class I area" means any federal, state, or Indian land which is classified Class I.

(15) "Combustion and incineration sources" means sources using combustion for waste disposal, steam production, chemical recovery or other process requirements; but excludes open burning.

(16) "Commenced construction" means that the owner or operator has all the necessary preconstruction approvals or permits and either has:

(a) Begun, or caused to begin, a continuous program of actual on-site construction of the source, to be completed within a reasonable time; or

(b) Entered into binding agreements or contractual obligations, which cannot be cancelled or modified without substantial loss to the owner or operator, to undertake a program of actual construction of the source to be completed within a reasonable time.

(17) "Concealment" means any action taken to reduce the observed or measured concentrations of a pollutant in a gaseous effluent while, in fact, not reducing the total amount of pollutant discharged.

(18) "Director" means director of the Washington state department of ecology or duly authorized representative.

(19) "Dispersion technique" means a method which attempts to affect the concentration of a pollutant in the ambient air other than by the use of pollution abatement equipment or integral process pollution controls.

(20) "Ecology" means the Washington state department of ecology.

(21) "Emission" means a release of air contaminants into the ambient air.

(22) "Emission reduction credit (ERC)" means a credit granted pursuant to WAC 173-400-131. This is a voluntary reduction in emissions.

(23) "Emission standard" means an allowable rate of emissions, level of opacity, or prescribing equipment or operating conditions as set forth in a regulation or regulatory order to assure continuous emission control.

(24) "Emissions unit" means any part of a source which emits or would have the potential to emit any pollutant subject to regulation.

(25) "Excess stack height" means that portion of a stack which exceeds the greater of sixty-five meters or the calculated stack height described in WAC 173-400-200(2).

(26) "Fossil fuel-fired steam generator" means a device, furnace, or boiler used in the process of burning fossil fuel for the primary purpose of producing steam by heat transfer.

(27) "Fugitive dust" means a particulate emission made airborne by forces of wind, man's activity, or both. Unpaved roads, construction sites, and tilled land are examples of areas that originate fugitive dust. Fugitive dust is a type of fugitive emission.

(28) "Fugitive emissions" means emissions which do not pass and which could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening.

(29) "General process unit" means an emissions unit using a procedure or a combination of procedures for the purpose of causing a change in material by either chemical or physical means, excluding combustion.

(30) "Good engineering practice (GEP)" refers to a calculated stack height based on the equation specified in WAC 173-400-200 (2)(a)(ii).

(31) "Incinerator" means a furnace used primarily for the thermal destruction of waste.

(32) "In operation" means engaged in activity related to the primary design function of the source.

(33) "Integral vista" means a view perceived from within the Class I area of a specific landmark or panorama located outside the boundary of the Class I area.

(34) "Land manager" means the secretary of the federal department or head of the state department or Indian governing body with authority over the Class I area.

(35) "Lowest achievable emission rate (LAER)" means for any source that rate of emissions which reflects:

(a) The most stringent emission limitation which is contained in the implementation plan of any state for such class or category of source, unless the owner or operator of the proposed new or modified source demonstrates that such limitations are not achievable; or

(b) The most stringent emission limitation which is achieved in practice by such class or category of source, whichever is more stringent.

In no event shall the application of this term permit a proposed new or modified source to emit any pollutant

in excess of the amount allowable under applicable new source performance standards.

(36) "Major modification" means any physical change or change in the method of operation as defined in WAC 173-400-141.

(37) "Major source" means: Any source which emits or has the potential to emit one hundred tons per year or more of any pollutant regulated by state or federal law.

(38) "Masking" means the mixing of a chemically nonreactive control agent with a malodorous gaseous effluent to change the perceived odor.

(39) "Materials handling" means the handling, transporting, loading, unloading, storage, and transfer of materials with no significant chemical or physical alteration.

(40) "National Emission Standards for Hazardous Air Pollutants (NESHAPS)" means the federal regulations set forth in 40 CFR Part 61.

(41) "Natural conditions" means naturally occurring phenomena that reduce visibility as measured in terms of visual range, contrast, or coloration.

(42) "Net emissions increase" means any emissions increase as defined in WAC 173-400-141.

(43) "New source" means a source which commences construction after the effective date of this chapter. Any addition to, enlargement, modification, replacement, restart after a period of five years of nonoperation, or any alteration of any process or source which may increase emissions or ambient air concentrations of any contaminant for which federal or state ambient or emission standards have been established shall be construed as construction or installation or establishment of a new source.

(44) "New source performance standards (NSPS)" means the federal regulations set forth in 40 CFR Part 60.

(45) "Nonattainment area" means a clearly delineated geographic area which has been designated by EPA promulgation as exceeding a national ambient air quality standard or standards for one or more of the criteria pollutants.

(46) "Notice of construction" means a written application to permit construction of a new source or modification of an existing source.

(47) "Opacity" means the degree to which an object seen through a plume is obscured, stated as a percentage.

(48) "Open burning" means the combustion of material in an open fire or in an outdoor container, without providing for the control of combustion or the control of the emissions from the combustion. Wood waste disposal in wigwam burners is not considered open burning.

(49) "Particulate matter" or "particulates" means any airborne finely divided solid or liquid material with an aerodynamic diameter smaller than 100 micrometers.

(50) "Particulate matter emissions" means all finely divided solid or liquid material, other than uncombined water, emitted to the ambient air as measured by applicable reference methods, or an equivalent or alternative method specified in 40 CFR Part 60 or by a test method specified in the Washington state implementation plan.

(51) "Parts per million (ppm)" means parts of a contaminant per million parts of gas, by volume, exclusive of water or particulates.

(52) "Person" means an individual, firm, public or private corporation, association, partnership, political subdivision, municipality, or government agency.

(53) "PM-10" means particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers as measured by a reference method based on 40 CFR Part 50 Appendix J and designated in accordance with 40 CFR Part 53 or by an equivalent method designated in accordance with 40 CFR Part 53.

(54) "PM-10 emissions" means finely divided solid or liquid material, with an aerodynamic diameter less than or equal to a nominal 10 micrometers emitted to the ambient air as measured by an applicable reference method, or an equivalent or alternate method, specified in 40 CFR Part 60 or by a test method specified in the Washington state implementation plan.

(55) "Potential to emit" means the maximum capacity of a source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is federally enforceable. Secondary emissions do not count in determining the potential to emit of a stationary source.

(56) "Prevention of significant deterioration (PSD)" means the program set forth in WAC 173-400-141.

(57) "Projected width" means that dimension of a structure determined from the frontal area of the structure, projected onto a plane perpendicular to a line between the center of the stack and the center of the building.

(58) "Reasonably attributable" means attributable by visual observation or any other technique the state deems appropriate.

(59) "Reasonably available control technology (RACT)" means the lowest emission limit that a particular source or source category is capable of meeting by the application of control technology that is reasonably available considering technological and economic feasibility. RACT is determined on a case-by-case basis for an individual source or source category taking into account the impact of the source upon air quality, the availability of additional controls, the emission reduction to be achieved by additional controls, the impact of additional controls on air quality, and the capital and operating costs of the additional controls.

RACT requirements for any source or source category may be adopted as an order or regulation after public involvement per WAC 173-400-171.

(60) "Regulatory order" means an order issued by ecology or an authority to an air contaminant source which approves a notice of construction and/or limits emissions and/or establishes other air pollution control requirements.

(61) "Significant emission" means a rate of emission equal to or greater than any one of the following rates:

Pollutant	Tons/Year	Pounds/Day	Pounds/Hour
Carbon monoxide	100		
Nitrogen oxides	40		
Sulfur dioxide	40	800	80
Volatile organic compounds	40		
Particulate matter	25	500	50
PM-10	15		
Lead	.6		
Total reduced sulfur (as H ₂ S)	10		
Total fluoride	3		

(62) "Significant visibility impairment" means visibility impairment which interferes with the management, protection, preservation, or enjoyment of visitor visual experience of the Class I area. The determination must be made on a case-by-case basis, taking into account the geographic extent, intensity, duration, frequency, and time of the visibility impairment, and how these factors correlate with the time of visitor use of the Class I area and frequency and timing of natural conditions that reduce visibility.

(63) "Source" means all of the emissions unit(s) including quantifiable fugitive emissions, which are located on one or more contiguous or adjacent properties under the control of the same person(s) and those activities that are secondary to the production of a single product or functionally related group of products.

(64) "Source category" means all sources of the same type or classification.

(65) "Stack" means any point in a source designed to emit solids, liquids, or gases into the air, including a pipe or duct.

(66) "Stack height" means the height of an emission point measured from the ground-level elevation at the base of the stack.

(67) "Standard conditions" means a temperature of 20°C (68°F) and a pressure of 760mm (29.92 inches) of mercury.

(68) "Sulfuric acid plant" means any facility producing sulfuric acid by the contact process by burning elemental sulfur, alkylation acid, hydrogen sulfide, or acid sludge.

(69) "Total reduced sulfur, (TRS)" means the sum of the sulfur compounds hydrogen sulfide, mercaptans, dimethyl sulfide, dimethyl disulfide, and any other organic sulfides emitted and measured by EPA method 16 or an approved equivalent method and expressed as hydrogen sulfide.

(70) "Total suspended particulate" means particulate matter as measured by the method described in 40 CFR Part 50 Appendix B as in effect on July 1, 1988.

(71) "United States Environmental Protection Agency, (USEPA)" shall be referred to as EPA.

(72) "Visibility impairment" means any perceptible degradation in visibility (visual range, contrast, coloration) not caused by natural conditions.

(73) "Visibility impairment of Class I areas" means visibility impairment within the area and visibility impairment of any formally designated integral vista associated with the area.

(74) "Volatile organic compound, (VOC)" means any organic compound which participates in atmospheric photochemical reactions; that is, any organic compound other than those which the USEPA administrator designates as having negligible photochemical reactivity. VOC may be measured by a reference method, an equivalent method, an alternative method or by procedures specified under 40 CFR Part 60. A reference method, an equivalent method, or an alternative method, however, may also measure nonreactive organic compounds. In such cases, an owner or operator may exclude the nonreactive organic compounds when determining compliance with a standard. This reactivity policy exempts the following compounds per the Federal Register: Methane, ethane, trichlorofluoromethane, dichlorodifluoromethane, chlorodifluoromethane, trifluoromethane, trichlorotrifluoroethane, dichlorotetrafluoroethane, chloropentafluoroethane, methylene chloride, and 1,1,1-trichloroethane (methyl chloroform).

[Statutory Authority: Chapter 70.94 RCW. 91-05-064 (Order 90-06), § 173-400-030, filed 2/19/91, effective 3/22/91. Statutory Authority: RCW 70.94.331, 70.94.395 and 70.94.510. 85-06-046 (Order 84-48), § 173-400-030, filed 3/6/85. Statutory Authority: Chapters 43.21A and 70.94 RCW. 83-09-036 (Order DE 83-13), § 173-400-030, filed 4/15/83. Statutory Authority: RCW 70.94.331. 80-11-059 (Order DE 80-14), § 173-400-030, filed 8/20/80. Statutory Authority: RCW 43.21A.080 and 70.94.331. 79-06-012 (Order DE 78-21), § 173-400-030, filed 5/8/79; Order DE 76-38, § 173-400-030, filed 12/21/76. Formerly WAC 18-04-030.]

WAC 173-400-040 General standards for maximum emissions. All sources and emissions units are required to meet the emission standards of this chapter. Where an emission standard listed in another chapter is applicable to a specific emissions unit, such standard will take precedent over a general emission standard listed in this chapter. When two or more emissions units are connected to a common stack and the operator elects not to provide the means or facilities to sample emissions from the individual emissions units, and the relative contributions of the individual emissions units to the common discharge are not readily distinguishable, then the emissions of the common stack must meet the most restrictive standard of any of the connected emissions units. Further, all emissions units are required to use reasonably available control technology (RACT) which may be determined for some sources or source categories to be more stringent than the applicable emission limitations of any chapter of Title 173 WAC. Where current controls are determined to be less than determined to be less than RACT, ecology or the authority shall, on a case-by-case basis, define RACT for each source or source category and issue a regulatory order to the source or sources for installation of RACT.

(1) Visible emissions. No person shall cause or permit the emission for more than three minutes, in any one hour, of an air contaminant from any emissions unit which at the emission point, or within a reasonable distance of the emission point, exceeds twenty percent opacity except:

(a) When the emissions occur due to soot blowing/grate cleaning and the operator can demonstrate that the emissions will not exceed twenty percent

opacity for more than fifteen minutes in any eight consecutive hours. The intent of this provision is to permit the soot blowing and grate cleaning necessary to the operation of boiler facilities. This practice, except for testing and trouble shooting, is to be scheduled for the same approximate times each day and ecology or the authority be advised of the schedule.

(b) When the owner or operator of a source supplies valid data to show that the presence of uncombined water is the only reason for the opacity to exceed twenty percent.

(c) When two or more sources are connected to a common stack, ecology or the authority may allow or require the use of an alternate time period if it is more representative of normal operations.

(d) When an alternate opacity limit has been established per RCW 70.94.331 (2)(c).

(2) **Fallout.** No person shall cause or permit the emission of particulate matter from any source to be deposited beyond the property under direct control of the owner(s) or operator(s) of the source in sufficient quantity to interfere unreasonably with the use and enjoyment of the property upon which the material is deposited.

(3) **Fugitive emissions.** The owner or operator of any emissions unit engaging in materials handling, construction, demolition or any other operation which is a source of fugitive emission:

(a) If located in an attainment area and not impacting any nonattainment area, shall take reasonable precautions to prevent the release of air contaminants from the operation.

(b) If the emissions unit has been identified as a significant contributor to the nonattainment status of a designated nonattainment area, shall be required to use best available control technology (BACT) to control emissions of the contaminants for which nonattainment has been designated. Significance will be determined by EPA interpretive ruling for PSD and offsets on file with ecology.

(4) **Odors.** Any person who shall cause or allow the generation of any odor from any source which may unreasonably interfere with any other property owner's use and enjoyment of his property must use recognized good practice and procedures to reduce these odors to a reasonable minimum.

(5) **Emissions detrimental to persons or property.** No person shall cause or permit the emission of any air contaminant from any source if it is detrimental to the health, safety, or welfare of any person, or causes damage to property or business.

(6) **Sulfur dioxide.**

No person shall cause or permit the emission of a gas containing sulfur dioxide from any emissions unit in excess of one thousand ppm of sulfur dioxide on a dry basis, corrected to seven percent oxygen for combustion sources, and based on the average of any period of sixty consecutive minutes, except:

When the owner or operator of an emissions unit supplies emission data and can demonstrate to ecology or

the authority that there is no feasible method of reducing the concentration to less than one thousand ppm (on a dry basis, corrected to seven percent oxygen for combustion sources) and that the state and federal ambient air quality standards for sulfur dioxide will not be exceeded. In such cases, ecology or the authority may require specific ambient air monitoring stations, be established, operated, and maintained by the owner or operator at mutually approved locations. All sampling results will be made available upon request and a monthly summary will be submitted to ecology or the authority.

(7) **Concealment and masking.** No person shall cause or permit the installation or use of any means which conceals or masks an emission of an air contaminant which would otherwise violate any provisions of this chapter.

(8) **Fugitive dust sources.**

(a) The owner or operator of a source of fugitive dust shall take reasonable precautions to prevent fugitive dust from becoming airborne and shall maintain and operate the source to minimize emissions.

(b) The owner(s) or operator(s) of any existing source(s) of fugitive dust that has been identified as a significant contributor to a Category I PM-10 area shall be required to use reasonably available control technology to control emissions. Significance will be determined by the definition found in 40 CFR Part 51, Appendix S, as amended through July 1, 1990.

[Statutory Authority: Chapter 70.94 RCW, 91-05-064 (Order 90-06), § 173-400-040, filed 2/19/91, effective 3/22/91. Statutory Authority: Chapters 43.21A and 70.94 RCW, 83-09-036 (Order DE 83-13), § 173-400-040, filed 4/15/83. Statutory Authority: RCW 70.94-331, 80-11-059 (Order DE 80-14), § 173-400-040, filed 8/20/80. Statutory Authority: RCW 43.21A.080 and 70.94.331, 79-06-012 (Order DE 78-21), § 173-400-040, filed 5/8/79; Order DE 76-38, § 173-400-040, filed 12/21/76. Formerly WAC 18-04-040.]

WAC 173-400-050 Emission standards for combustion and incineration units. (1) Combustion and incineration emissions units must meet all requirements of WAC 173-400-040 and, in addition, no person shall cause or permit emissions of particulate matter in excess of 0.23 gram per dry cubic meter at standard conditions (0.1 grain/dscf), except, for an emissions unit combusting wood derived fuels for the production of steam. No person shall allow or permit the emission of particulate matter in excess of 0.46 gram per dry cubic meter at standard conditions (0.2 grain/dscf), as measured by EPA method 5 or approved procedures contained in "*Source Test Manual - Procedures For Compliance Testing*," state of Washington, department of ecology, as of July 12, 1990, on file at ecology.

(2) For any incinerator, no person shall cause or permit emissions in excess of one hundred ppm of total carbonyls as measured by applicable EPA methods or acceptable procedures contained in "*Source Test Manual - Procedures for Compliance Testing*," state of Washington, department of ecology, on file at ecology. Incinerators shall be operated only during daylight hours unless written permission to operate at other times is received from ecology or the authority.

(3) Measured concentrations for combustion and incineration sources shall be adjusted for volumes corrected to seven percent oxygen, except when ecology or the authority determines that an alternate oxygen correction factor is more representative of normal operations.

[Statutory Authority: Chapter 70.94 RCW. 91-05-064 (Order 90-06), § 173-400-050, filed 2/19/91, effective 3/22/91. Statutory Authority: Chapters 43.21A and 70.94 RCW. 83-09-036 (Order DE 83-13), § 173-400-050, filed 4/15/83. Statutory Authority: RCW 70.94-.331. 80-11-059 (Order DE 80-14), § 173-400-050, filed 8/20/80. Statutory Authority: RCW 43.21A.080 and 70.94.331. 79-06-012 (Order DE 78-21), § 173-400-050, filed 5/8/79; Order DE 76-38, § 173-400-050, filed 12/21/76. Formerly WAC 18-04-050.]

WAC 173-400-060 Emission standards for general process units. General process units are required to meet all applicable provisions of WAC 173-400-040 and, no person shall cause or permit the emission of particulate material from any general process operation in excess of 0.23 grams per dry cubic meter at standard conditions (0.1 grain/dscf) of exhaust gas. EPA test methods from 40 CFR Appendix A which are adopted by reference and any other approved test procedures which are contained in ecology's "Source Test Manual - Procedures For Compliance Testing" as of July 12, 1990, will be used to determine compliance.

[Statutory Authority: Chapter 70.94 RCW. 91-05-064 (Order 90-06), § 173-400-060, filed 2/19/91, effective 3/22/91. Statutory Authority: Chapters 43.21A and 70.94 RCW. 83-09-036 (Order DE 83-13), § 173-400-060, filed 4/15/83. Statutory Authority: RCW 70.94-.331. 80-11-059 (Order DE 80-14), § 173-400-060, filed 8/20/80; Order DE 76-38, § 173-400-060, filed 12/21/76. Formerly WAC 18-04-060.]

WAC 173-400-070 Emission standards for certain source categories. Ecology finds that the reasonable regulation of sources within certain categories requires separate standards applicable to such categories. The standards set forth in this section shall be the maximum allowable standards for emissions units within the categories listed. Except as specifically provided in this section, such emissions units shall not be required to meet the provisions of WAC 173-400-040, 173-400-050 and 173-400-060.

(1) Wigwam burners.

(a) All wigwam burners shall meet all provisions of WAC 173-400-040 (2), (3), (4), (5), (6), and (7).

(b) All wigwam burners shall use RACT. All emissions units shall be operated and maintained to minimize emissions. These requirements may include a controlled tangential vent overfire air system, an adequate underfire system, elimination of all unnecessary openings, a controlled feed and other modifications determined necessary by ecology or the authority.

(c) It shall be unlawful to install or increase the existing use of any burner that does not meet all requirements for new sources including those requirements specified in WAC 173-400-040 and 173-400-050, except operating hours.

(d) Ecology may establish additional requirements for wigwam burners located in sensitive areas as defined by

chapter 173-440 WAC. These requirements may include but shall not be limited to:

(i) A requirement to meet all provisions of WAC 173-400-040 and 173-400-050. Wigwam burners will be considered to be in compliance if they meet the requirements contained in WAC 173-400-040(1). An exception is made for a startup period not to exceed thirty minutes in any eight consecutive hours.

(ii) A requirement to apply BACT.

(iii) A requirement to reduce or eliminate emissions if ecology establishes that such emissions unreasonably interfere with the use and enjoyment of the property of others or are a cause of violation of ambient air standards.

(2) Hog fuel boilers.

(a) Hog fuel boilers shall meet all provisions of WAC 173-400-040 and 173-400-050(1), except that emissions may exceed twenty percent opacity for up to fifteen consecutive minutes once in any eight hours. The intent of this provision is to permit the soot blowing and grate cleaning necessary to the operation of these units. This practice is to be scheduled for the same specific times each day and ecology or the authority shall be notified of the schedule or any changes.

(b) All hog fuel boilers shall utilize RACT and shall be operated and maintained to minimize emissions.

(3) Orchard heating.

(a) Burning of rubber materials, asphaltic products, crankcase oil or petroleum wastes, plastic, or garbage is prohibited.

(b) It is unlawful to burn any material or operate any orchard-heating device that causes a visible emission exceeding twenty percent opacity, except during the first thirty minutes after such device or material is ignited.

(4) Grain elevators.

Any grain elevator which is primarily classified as a materials handling operation shall meet all the provisions of WAC 173-400-040 (2), (3), (4), and (5).

(5) Catalytic cracking units.

(a) All existing catalytic cracking units shall meet all provisions of WAC 173-400-040 (2), (3), (4), (5), (6), and (7) and:

(i) No person shall cause or permit the emission for more than three minutes, in any one hour, of an air contaminant from any catalytic cracking unit which at the emission point, or within a reasonable distance of the emission point, exceeds forty percent opacity.

(ii) No person shall cause or permit the emission of particulate material in excess of 0.46 grams per dry cubic meter at standard conditions (0.20 grains/dscf) of exhaust gas.

(b) All new catalytic cracking units shall meet all provisions of WAC 173-400-115.

(6) Other wood waste burners.

(a) Wood waste burners not specifically provided for in this section shall meet all provisions of WAC 173-400-040.

(b) Such wood waste burners shall utilize RACT and shall be operated and maintained to minimize emissions.

(7) Sulfuric acid plants.

No person shall cause to be discharged into the atmosphere from a sulfuric acid plant, any gases which contain acid mist, expressed as H₂SO₄, in excess of 0.15 pounds per ton of acid produced. Sulfuric acid production shall be expressed as one hundred percent H₂SO₄.

[Statutory Authority: Chapter 70.94 RCW. 91-05-064 (Order 90-06), § 173-400-070, filed 2/19/91, effective 3/22/91. Statutory Authority: Chapters 43.21A and 70.94 RCW. 83-09-036 (Order DE 83-13), § 173-400-070, filed 4/15/83. Statutory Authority: RCW 70.94-331. 80-11-059 (Order DE 80-14), § 173-400-070, filed 8/20/80. Statutory Authority: RCW 43.21A.080 and 70.94.331. 79-06-012 (Order DE 78-21), § 173-400-070, filed 5/8/79; Order DE 76-38, § 173-400-070, filed 12/21/76. Formerly WAC 18-04-070.]

WAC 173-400-075 Emission standards for sources emitting hazardous air pollutants. (1) The emission standards for hazardous air pollutants promulgated by the United States Environmental Protection Agency (EPA) prior to July 1, 1989, as contained in Title 40, Code of Federal Regulations, Part 61, are adopted by reference.

(2) Ecology or the authority may conduct source tests and require access to records, books, files and other information specific to the control, recovery or release of those pollutants registered under 40 CFR Part 61 in order to determine the status of compliance of sources of these contaminants and to carry out its enforcement responsibilities.

(3) Source testing, monitoring and analytical methods for sources of hazardous air pollutants such as: Asbestos, benzene from fugitive emission sources, beryllium, mercury, or vinyl chloride shall conform with the requirements of Title 40, Code of Federal Regulations, Part 61, as promulgated prior to July 1, 1989.

(4) This section shall not apply to any source operating pursuant to a waiver granted by EPA or an exemption granted by the president of the United States during the effective life of such waiver or exemption.

[Statutory Authority: Chapter 70.94 RCW. 91-05-064 (Order 90-06), § 173-400-075, filed 2/19/91, effective 3/22/91. Statutory Authority: RCW 70.94.331, 70.94.395 and 70.94.510. 85-06-046 (Order 84-48), § 173-400-075, filed 3/6/85. Statutory Authority: Chapter 70.94 RCW. 84-10-019 (Order DE 84-8), § 173-400-075, filed 4/26/84. Statutory Authority: Chapters 43.21A and 70.94 RCW. 83-09-036 (Order DE 83-13), § 173-400-075, filed 4/15/83. Statutory Authority: RCW 70.94.331. 80-11-059 (Order DE 80-14), § 173-400-075, filed 8/20/80. Statutory Authority: RCW 43.21A.080 and 70.94.331. 79-06-012 (Order DE 78-21), § 173-400-075, filed 5/8/79; Order DE 76-38, § 173-400-075, filed 12/21/76. Formerly WAC 18-04-075.]

WAC 173-400-100 Registration. The owner or operator of each source within the following source categories shall register the source with ecology or an authority:

- (1) Agricultural drying and dehydrating operations;
- (2) Asphalt plants;
- (3) Beverage can surface coating operations;
- (4) Bulk gasoline terminals;
- (5) Cattle feedlots with facilities for one thousand or more cattle;
- (6) Chemical plants;
- (7) Ferrous foundries;
- (8) Fertilizer plants;

(9) Flexible vinyl and urethane coating and printing operations;

(10) Grain handling, seed processing, pea and lentil processing facilities;

(11) Metallic mineral processing plants;

(12) Mineralogical processing plants;

(13) Nonferrous foundries;

(14) Other metallurgical processing plants;

(15) Petroleum refineries;

(16) Power boilers using coal, hog fuel, oil, or other solid or liquid fuel;

(17) Pressure sensitive tape and label surface coating operations;

(18) Rendering plants;

(19) Scrap metal operations;

(20) Synthetic organic chemical manufacturing industries;

(21) Sulfuric acid plants;

(22) Synthetic fiber production facilities;

(23) Veneer dryers;

(24) Wood waste incinerators including wigwam burners;

(25) Other incinerators designed for a capacity of one hundred pounds per hour or more;

(26) Stationary internal combustion engines rated at five hundred horse power or more;

(27) Sawmills, including processing for lumber, plywood, shake, shingle, pulpwood insulating board, or any combination thereof;

(28) Any category of stationary sources to which a federal standard of performance (NSPS) applies;

(29) Any source which emits a contaminant subject to a National Emission Standard for Hazardous Air Pollutants (NESHAPS);

(30) Any major source.

Registration shall be on forms to be supplied by ecology or the authority within the time specified on the form.

A report of closure shall be filed within ninety days with ecology or an authority if under their jurisdiction when operations producing emissions permanently cease at any source within the above categories.

[Statutory Authority: Chapter 70.94 RCW. 91-05-064 (Order 90-06), § 173-400-100, filed 2/19/91, effective 3/22/91. Statutory Authority: RCW 70.94.331, 70.94.395 and 70.94.510. 85-06-046 (Order 84-48), § 173-400-100, filed 3/6/85. Statutory Authority: Chapters 43.21A and 70.94 RCW. 83-09-036 (Order DE 83-13), § 173-400-100, filed 4/15/83. Statutory Authority: RCW 70.94.331. 80-11-059 (Order DE 80-14), § 173-400-100, filed 8/20/80. Statutory Authority: RCW 43.21A.080 and 70.94.331. 79-06-012 (Order DE 78-21), § 173-400-100, filed 5/8/79; Order DE 76-38, § 173-400-100, filed 12/21/76. Formerly WAC 18-04-100.]

WAC 173-400-105 Records, monitoring, and reporting. The owner or operator of a source shall upon notification by the director of ecology, maintain records on the type and quantity of emissions from the source and other information deemed necessary to determine whether the source is in compliance with applicable emission limitations and control measures.

(1) Emission inventory. The owner(s) or operator(s) of any air contaminant source shall submit an inventory of emissions from the source each year. The inventory

may include stack and fugitive emissions of particulate matter, PM-10, sulfur dioxide, carbon monoxide, total reduced sulfur compounds (TRS), fluorides, lead, VOCs, and other contaminants, and shall be submitted (when required) no later than one hundred five days after the end of the calendar year. The owner(s) or operator(s) shall maintain records of information necessary to substantiate any reported emissions, consistent with the averaging times for the applicable standards.

(2) Monitoring. Ecology shall conduct a continuous surveillance program to monitor the quality of the ambient atmosphere as to concentrations and movements of air contaminants.

As a part of this program, the director of ecology or an authorized representative may require any source under the jurisdiction of ecology to conduct stack and/or ambient air monitoring and to report the results to ecology.

(3) Investigation of conditions. Upon presentation of appropriate credentials, for the purpose of investigating conditions specific to the control, recovery, or release of air contaminants into the atmosphere, personnel from ecology or an authority shall have the power to enter at reasonable times upon any private or public property, excepting nonmultiple unit private dwellings housing one or two families.

(4) Source testing. To demonstrate compliance, ecology may conduct or require that a test be conducted of the source using approved EPA methods from 40 C.F.R. 60 Appendix A which are adopted by reference, or approved procedures contained in "Source Test Manual - Procedures for Compliance Testing," state of Washington, department of ecology, as of July 12, 1990, on file at ecology. The operator of a source may be required to provide the necessary platform and sampling ports for ecology personnel or others to perform a test of an emissions unit. Ecology shall be allowed to obtain a sample from any emissions unit. The operator of the source shall be given an opportunity to observe the sampling and to obtain a sample at the same time.

(5) Report of startup, shutdown, breakdown or upset condition(s). If a startup, shutdown, breakdown or upset condition occurs which could result in an emissions violation or a violation of an ambient air quality standard, the owner(s) or operator(s) of the source(s) shall take the following actions as applicable:

(a) For a planned condition, such as a startup or shutdown, the condition shall be reported to ecology or the authority in advance of its occurrence.

(b) For an unplanned condition, such as a breakdown or upset, the condition shall be reported to ecology or the authority as soon as possible.

Upon request by ecology or the authority, the owner(s) or operator(s) of the source(s) shall submit a full written report including the known causes, the corrective actions taken, and the preventive measures to be taken to minimize or eliminate the chance of recurrence.

Compliance with the requirements of WAC 173-400-105(5) does not relieve the owner or operator of the source from the responsibility to maintain continuous compliance with all the requirements of this chapter or

an applicable chapter nor from the resulting liabilities for failure to comply.

(6) Continuous monitoring and recording. Owners and operators of the following categories of sources shall install, calibrate, maintain and operate equipment for continuously monitoring and recording those emissions specified.

(a) Fossil fuel-fired steam generators.

(i) Opacity, except where:

(A) Steam generator capacity is less than two hundred fifty million BTU per hour heat input; or

(B) Only gaseous fuel is burned.

(ii) Sulfur dioxide, except where steam generator capacity is less than two hundred fifty million BTU per hour heat input or if sulfur dioxide control equipment is not required.

(iii) Percent oxygen or carbon dioxide where such measurements are necessary for the conversion of sulfur dioxide continuous emission monitoring data.

(iv) General exception. These requirements do not apply to a fossil fuel-fired steam generator with an annual average capacity factor of less than thirty percent, as reported to the Federal Power Commission for calendar year 1974, or as otherwise demonstrated to ecology or the authority by the owner(s) or operator(s).

(b) Sulfuric acid plants.

Sulfur dioxide where production capacity is more than three hundred tons per day, expressed as one hundred percent acid, except for those facilities where conversion to sulfuric acid is utilized primarily as a means of preventing emissions to the atmosphere of sulfur dioxide or other sulfur compounds.

(c) Fluid bed catalytic cracking units catalyst regenerators at petroleum refineries.

Opacity where fresh feed capacity is more than twenty thousand barrels per day.

(d) Wood residue fuel-fired steam generators.

(i) Opacity, except where steam generator capacity is less than one hundred million BTU per hour heat input.

(ii) Continuous monitoring equipment. The requirements of WAC 173-400-105 (6)(e) do not apply to wood residue fuel-fired steam generators, but continuous monitoring equipment required by WAC 173-400-105 (6)(d) shall be subject to approval by ecology.

(e) Owners and operators of those sources required to install continuous monitoring equipment under this chapter shall demonstrate to ecology or the authority, compliance with the equipment and performance specifications and observe the reporting requirements contained in 40 CFR Part 51, Appendix P, Sections 3, 4 and 5, promulgated October 6, 1975, and amended November 7, 1986, which is adopted by reference.

(f) Special considerations. If for reason of physical plant limitations or extreme economic situations, ecology determines that continuous monitoring is not a reasonable requirement, alternative monitoring and reporting procedures will be established on an individual basis. These will generally take the form of stack tests conducted at a frequency sufficient to establish the emission levels over time and to monitor deviations in these levels.

(g) Exemptions. This subsection (6) does not apply to any source which is:

(i) Subject to a new source performance standard. These sources will be governed by WAC 173-400-115.

(ii) Not subject to an applicable emission standard.

(h) Monitoring system malfunctions. A source may be temporarily exempted from the monitoring and reporting requirements of this chapter during periods of monitoring system malfunctions provided that the source owner(s) or operator(s) shows to the satisfaction of ecology or the authority that the malfunction was unavoidable and is being repaired as expeditiously as practicable.

(7) Change in raw materials or fuels. Any change or series of changes in raw material or fuel which will result in a cumulative increase in emissions of sulfur dioxide of forty tons per year or more over that stated in the initial inventory required by WAC 173-400-105(1) shall require the submittal of sufficient information to ecology or the authority to determine the effect of the increase upon ambient concentrations of sulfur dioxide. Ecology or the authority may issue regulatory orders requiring controls to reduce the effect of such increases. Cumulative changes in raw material or fuel of less than 0.5 percent increase in average annual sulfur content over the initial inventory shall not require such notice.

[Statutory Authority: Chapter 70.94 RCW. 91-05-064 (Order 90-06), § 173-400-105, filed 2/19/91, effective 3/22/91; 87-20-019 (Order 87-12), § 173-400-105, filed 9/30/87.]

WAC 173-400-110 New source review (NSR). (1) Applicability.

(a) A notice of construction must be approved by ecology or the authority prior to the construction, installation, or establishment of a new source or emissions unit which is required to register per WAC 173-400-100.

(b) Ecology or the authority may require a notice of construction prior to the construction, installation, or establishment of any other new source, other than a single family or duplex dwelling.

(c) The notice of construction and new source review shall apply only to the emission unit(s) affected and the contaminants involved.

(d) The owner(s) or operator(s) of any source that is required to register per WAC 173-400-100 shall notify ecology or the authority prior to replacement of air pollution control equipment or process equipment other than equivalent replacement for routine maintenance and repair. Ecology or the authority may determine that a notice of construction is required.

(2) **Additional information.** Within thirty days of receipt of a notice of construction, ecology or the authority may require the submission of additional plans, specifications, and other information necessary for the review of the proposed new or modified source.

(3) **Requirements for new sources.** Ecology or the authority shall review notice(s) of construction, plans, specifications, and other associated information to determine that:

(a) The new source will be in accord with applicable federal and state rules and regulations, including NSPS and NESHAPS and the new source will use BACT for emissions control; and

(b) Requirements for nonattainment areas;

(i) If the new source is a major source or the proposed change is a major modification, it will comply with LAER for emissions of the contaminants for which nonattainment has been designated; and

(ii) If the new source is a major source or the proposed change is a major modification and is located in an area that is not in attainment for carbon monoxide or ozone and the source will emit carbon monoxide or VOCs, it is required that there be an analysis of alternative sites, sizes, and production processes and environmental control techniques for the proposed new source which demonstrates that benefits of the proposed new source significantly outweigh the environmental and social costs imposed as a result of its location, construction, and modification. This analysis is the responsibility of the applicant, who may use an environmental impact statement prepared under the State Environmental Policy Act (SEPA) or the National Environmental Policy Act (NEPA) as a source of information; and

(iii) The proposed new source will not violate the requirements for reasonable further progress established by the state implementation plan. If the new source is a major source or the proposed change is a major modification, the total new allowable emissions from all sources existing at the time of application for notice of construction plus proposed allowable emissions for the new source, of the contaminants for which nonattainment has been designated, shall be no greater than the total allowable emissions from existing sources, except that: (A) Ecology or the authority may require that new total allowable emissions be reduced to less than existing total allowable emissions, as necessary to achieve air quality attainment goals stated in an approved plan of attainment, and (B) the emissions from the proposed new source may be approved without an offsetting reduction from existing sources if an adequate emissions growth allowance is included in an approved plan of attainment. The above requirements must be met by reducing emissions from existing source(s). Arrangements for such offsetting reduction(s) of actual emissions must be made by the owner(s) or operator(s) of the proposed new source. The proposed new source may be constructed only after the issuance of a regulatory order(s) to the proposed new source and to all the source(s) that provided the offset. The said orders shall include new allowable emissions limits for all the affected sources; and

(iv) If the new source is a major source or the proposed change is a major modification, the owner(s) or operator(s) shall demonstrate that all major sources owned or operated by such person (or persons under common control with such person) in the state which are subject to emission limitations are in compliance or on a schedule for compliance with applicable emission limitations and standards under the Federal Clean Air Act; and

(v) In a locality that does not meet national ambient air quality standards and has not been designated a nonattainment area, a proposed new major source or major modification must reduce the impact of its emissions upon air quality by obtaining sufficient emissions reductions to, at a minimum, compensate for its adverse ambient impact. An ecology approved air quality model shall be used to demonstrate a net air quality benefit where the source would otherwise cause or contribute to a violation of any national ambient air quality standard.

(c) **Requirements for attainment areas.** If the proposed new source is located in an area that is in attainment for contaminants that would be emitted by the source and the source is located in an ozone attainment area if the source would emit VOCs;

(i) The allowable emissions from the proposed new source will not delay the attainment date for an area not in attainment nor cause or contribute to a violation of any national ambient air quality standard. This requirement will be considered to be met if the impact at any location within a nonattainment area or a locality exceeding the applicable standard does not exceed the following levels:

Pollutant	Annual Average	24-Hour Average	8-Hour Average	3-Hour Average	1-Hour Average
CO	-	-	0.5 mg/m ³	-	2 mg/m ³
TSP	1.0 ug/m ³	5 ug/m ³	-	-	-
SO ₂	1.0 ug/m ³	5 ug/m ³	-	25 ug/m ³	30 ug/m ³
PM-10	1.0 ug/m ³	5 ug/m ³	-	-	-
NO ₂	1.0 ug/m ³	-	-	-	-

(ii) The proposed new source will not cause a violation of any ambient air quality standard.

(iii) An offsetting emissions reduction that satisfies the requirements of WAC 173-400-110 (3)(b) may be used to satisfy the requirements of WAC 173-400-110 (3)(c) and (d) if required.

(d) **Visibility requirements.** Any new major source or new major modification shall evaluate the visibility impairment per 40 CFR 52.21(e) for all Class I areas in Washington and neighboring states. The evaluation shall comply with the following:

(i) When the land manager has officially designated visibility to be an important attribute, the owner(s) or operator(s) of the new source shall demonstrate that the potential emissions in combination with emissions from all other sources permitted after January 1, 1982, shall not cause or contribute to a significant visibility impairment.

(ii) Ecology shall upon receipt of an application for a notice of construction notify the land managers of potentially affected areas. Notification shall be in writing and include a copy of all information relevant to the application including the information developed for this section. This information shall be transmitted to the land manager within thirty days of receipt of the application and at least sixty days prior to public hearing on the application for permit to construct.

(iii) All evaluations of visibility impairment required under this section shall use the models on file with ecology or equivalent models approved by ecology or EPA.

(iv) The results of the evaluation shall be sent to the land manager of the affected areas for review and recommendation. The review shall consider the degree of visibility impairment, duration, geographic extent, frequency, and time. The recommendation of the land managers concerning adverse impact on visibility shall be sent to ecology within thirty days of receipt of the evaluation results.

(v) Should ecology concur with the recommendation of the land manager, the notice of construction shall be approved or disapproved according to the recommendation. Ecology may find the review of a land manager inadequate and make its own determination. A finding of significant visibility impairment shall require a disapproval of the notice of construction, unless sufficient mitigating measures are developed.

(vi) Ecology or land managers may demonstrate that the new source would cause impairment of an integral vista officially designated at least six months before the new source submitted a complete application. The protection of an integral vista by controls on the source shall consider the time necessary for compliance, the energy and nonair quality environmental effects of compliance and the productive life of the source.

(vii) Ecology may require visibility monitoring at the site of the new source or potentially affected areas as a part of the applicable regulatory order. The monitoring period may be before or after construction or both.

(4) **Preliminary determination.** Within thirty days after receipt of all information required, ecology or the authority shall:

(a) Make preliminary determinations on the matters set forth in subsection (3)(b), (c), and (d) of this section if applicable; and

(b) Initiate compliance with the provisions of WAC 173-400-171 relating to public notice and public comment, as applicable.

(5) **Final determination.** If, after review of all information received including public comment, ecology or the authority finds that all the conditions in subsection (3) of this section are satisfied, whichever is applicable, the authority will issue a regulatory order to approve the notice of construction for the proposed new source or modification.

(6) **Appeal of approval.** A notice of construction approval can be appealed to the state pollution control hearings board per RCW 70.94.025.

(7) **Portable sources.** For portable sources which locate temporarily at particular sites, the owner(s) or operator(s) shall be allowed to operate at the temporary location without filing a notice of construction, providing that the owner(s) or operator(s) notifies ecology or the authority of intent to operate at the new location at least thirty days prior to starting the operation, and supplies sufficient information to enable ecology or the authority to determine that the operation will comply with the emission standards for a new source, and will not cause a violation of applicable ambient air quality standards and, if in a nonattainment area, will not interfere with scheduled attainment of ambient standards. The permission to operate shall be for a limited period of time (one

year or less) and ecology or the authority may set specific conditions for operation during that period. A temporary source shall be required to comply with all applicable emission standards.

(8) **Commencement of construction.** The owner(s) or operator(s) of the new source shall not commence construction until the applicable notice of construction has been approved.

[Statutory Authority: Chapter 70.94 RCW. 91-05-064 (Order 90-06), § 173-400-110, filed 2/19/91, effective 3/22/91. Statutory Authority: Chapters 43.21A and 70.94 RCW. 83-09-036 (Order DE 83-13), § 173-400-110, filed 4/15/83. Statutory Authority: RCW 70.94.331, 70.94.510, and 70.94.785. 81-03-002 (Order DE 80-53), § 173-400-110, filed 1/8/81. Statutory Authority: RCW 70.94.331. 80-11-059 (Order DE 80-14), § 173-400-110, filed 8/20/80. Statutory Authority: RCW 43.21A.080 and 70.94.331. 79-06-012 (Order DE 78-21), § 173-400-110, filed 5/8/79; Order DE 76-38, § 173-400-110, filed 12/21/76. Formerly WAC 18-04-110.]

WAC 173-400-115 Standards of performance for new sources. Title 40, Code of Federal Regulations, Part 60 (standards of performance for new sources), as promulgated prior to July 1, 1989, is adopted by reference except for sections 60.5 (determination of construction or modification) and 60.6 (review of plans).

(1) Sections 60.5 and 60.6 of Title 40, Code of Federal Regulations, are not incorporated herein because they provide for preconstruction review of new sources only on request. Such review under the state program is mandatory and an order of approval is required prior to construction, installation or establishment of a new source.

(2) As of July 1, 1989, the federal regulations adopted by reference hereby set standards of performance affecting facilities for the following described subparts of 40 CFR Part 60:

- Subpart D Fossil fuel fired steam generators for which construction commenced after August 17, 1971, and prior to September 19, 1978, which have a heat input greater than 73 megawatts but not greater than 250 megawatts
- Subpart Da Electric utility steam generating units for which construction commenced after September 18, 1978, which have a heat input greater than 73 megawatts but not greater than 250 megawatts
- Subpart Db Industrial-commercial-institutional steam generating units for which construction commenced after June 19, 1984, and prior to June 19, 1986, which have a heat input greater than 29 megawatts but less than 73 megawatts
- Subpart E Incinerators
- Subpart F Portland cement plants
- Subpart G Nitric acid plants
- Subpart H Sulfuric acid plants
- Subpart I Asphalt concrete plants

- Subpart J Petroleum refineries which produce less than 25,000 barrels per day of refined products
- Subpart K Storage vessels for petroleum liquid constructed after June 11, 1973, and prior to May 19, 1978, which have a capacity greater than 40,000 gallons
- Subpart Ka Storage vessels for petroleum liquids constructed after May 18, 1978, which have a capacity greater than 40,000 gallons
- Subpart Kb Volatile organic liquid storage vessels (including petroleum liquid storage vessels) constructed, reconstructed, or modified after July 23, 1984
- Subpart L Secondary lead smelters
- Subpart M Brass and bronze ingot production plants
- Subpart N Iron and steel plants
- Subpart O Sewage treatment plants
- Subpart S Primary aluminum reduction plants
- Subpart T Phosphate fertilizer industry: Wet process phosphoric acid plants
- Subpart U Phosphate fertilizer industry: Superphosphoric acid plants
- Subpart V Phosphate fertilizer industry: Diammonium phosphate plants
- Subpart W Phosphate fertilizer industry: Triple superphosphate plants
- Subpart X Phosphate fertilizer industry: Granular triple superphosphate storage facilities
- Subpart Y Coal preparation plants
- Subpart Z Ferroalloy production facilities
- Subpart AA Steel plants: Electric arc furnaces
- Subpart BB Kraft pulp mills
- Subpart CC Glass manufacturing plants
- Subpart DD Grain elevators
- Subpart EE Industrial surface coating: Metal furniture
- Subpart GG Stationary gas turbines
- Subpart HH Lime manufacturing plants
- Subpart KK Lead acid batteries
- Subpart LL Metallic mineral processing plants
- Subpart MM Automobile and light duty truck surface coating operations
- Subpart NN Phosphate rock plants
- Subpart PP Ammonium sulfate manufacture
- Subpart QQ Publication rotogravure printing
- Subpart RR Pressure sensitive tape and label surface coating operations
- Subpart SS Industrial surface coating: Large appliances
- Subpart TT Industrial surface coating: Metal coils
- Subpart UU Asphalt processing and asphalt roofing manufacture
- Subpart VV SOCM I equipment leaks (VOC)
- Subpart WW Beverage can surface coating operations
- Subpart XX Bulk gasoline terminals

Subpart AAA	New residential wood heaters
Subpart FFF	Flexible vinyl and urethane coating and printing
Subpart GGG	Petroleum refineries – compressors and fugitive emission sources
Subpart HHH	Synthetic fiber production facilities
Subpart JJJ	Petroleum dry cleaners
Subpart PPP	Wool fiberglass insulation manufacturing plants

Compliance with the standards for affected facilities within these source categories shall be determined by performance tests and visual observations of opacity as set forth in the regulations adopted by reference.

Note: For fossil fuel fired steam generators referenced by Subpart D and Da above, units greater than 250 megawatts are governed by the energy facility site evaluation council (EFSEC) in Title 463 WAC.

[Statutory Authority: Chapter 70.94 RCW. 91-05-064 (Order 90-06), § 173-400-115, filed 2/19/91, effective 3/22/91. Statutory Authority: RCW 70.94.331, 70.94.395 and 70.94.510. 85-06-046 (Order 84-48), § 173-400-115, filed 3/6/85. Statutory Authority: Chapters 43.21A and 70.94 RCW. 83-09-036 (Order DE 83-13), § 173-400-115, filed 4/15/83; 82-16-019 (Order DE 82-20), § 173-400-115, filed 7/27/82. Statutory Authority: RCW 70.94.331. 80-11-059 (Order DE 80-14), § 173-400-115, filed 8/20/80. Statutory Authority: RCW 43.21A.080 and 70.94.331. 79-06-012 (Order DE 78-21), § 173-400-115, filed 5/8/79; Order DE 76-38, § 173-400-115, filed 12/21/76. Formerly WAC 18-04-115.]

WAC 173-400-120 Bubble rules. (1) Applicability. The owner(s) or operator(s) of any source(s) may apply for a bubble for any contaminant regulated by state or federal law for which the emission requirement may be stated as an allowable limit in weight of contaminant per unit time for the emissions units involved.

(2) Conditions. A bubble may be authorized provided the following conditions have been demonstrated to the satisfaction of ecology or the authority.

(a) The contaminants exchanged must be of the same type, that is, particulates for particulates, sulfur dioxide for sulfur dioxide, etc.

(b) The bubble will not interfere with the attainment and maintenance of air quality standards.

(c) The bubble will not result in a delay in compliance by any source, nor a delay in any existing enforcement action.

(d) The bubble will not supersede NSPS, NESHAPS, BACT, or LAER. The emissions of hazardous (NESHAPS) contaminants shall not be increased.

(e) The bubble will not result in an increase in the sum of actual emission rates of the contaminant involved from the emissions units involved.

(f) A bubble may not be authorized only for opacity limits. However, if the emission limit for particulates for a given emissions unit is increased as part of a bubble, the opacity limit for the given emissions unit may be increased subject to the following limitations:

(i) The new opacity limit shall be specific for the given emissions unit;

(ii) The new opacity limit shall be consistent with the new particulates limit;

(iii) An opacity greater than sixty percent shall never be authorized;

(iv) If the given emissions unit emits or has the potential to emit 100 tons per year or more of particulate matter, the opacity shall be monitored continuously.

(g) The emission limits of the bubble are equivalent to existing limits in enforceability.

(h) Concurrently with or prior to the authorization of a bubble, each affected source shall receive or have received a regulatory order that establishes total allowable emissions from the source of the contaminant being bubbled, expressed as weight of the contaminant per unit time. The new total allowable emissions shall be considered RACT.

(i) There will be no net adverse impact upon air quality from the establishment of new emission requirements for a specific source or emissions unit. Determination of net adverse impact shall include but not be limited to public perception of opacity and public perception of odorous contaminants.

(j) Specific situations may require additional demonstration as requested by ecology or the authority.

(3) Jurisdiction. Whenever a bubble application involves emissions units, some of which are under the jurisdiction of ecology and some of which are under the jurisdiction of an authority, approval will require concurrence by both authorities. The new emission limits for each emissions unit will be enforced by the authority of original jurisdiction.

(4) Additional information. Within thirty days, after the receipt of a bubble application and all supporting data and documentation, ecology or the authority may require the submission of additional information needed to review the application.

(5) Approval. Within thirty days after all the required information has been received, ecology or the authority shall approve or deny the application, based on a finding that conditions in subsection (2)(a) through (j) of this section have been satisfied or not. If the application is approved, a regulatory order or equivalent document shall be issued which includes new allowable emissions expressed in weight of pollutant per unit time for each emissions unit involved in the application. The order or equivalent document must include all requirements necessary to assure that conditions in subsection (2)(a) through (j) of this section will be satisfied. If the bubble depends in whole or in part upon the shutdown of equipment, the regulatory order or equivalent document must prohibit the operation of the affected equipment.

[Statutory Authority: Chapter 70.94 RCW. 91-05-064 (Order 90-06), § 173-400-120, filed 2/19/91, effective 3/22/91. Statutory Authority: Chapters 43.21A and 70.94 RCW. 89-02-055 (Order 88-39), § 173-400-120, filed 1/3/89; 83-09-036 (Order DE 83-13), § 173-400-120, filed 4/15/83. Statutory Authority: RCW 70.94.331. 80-11-059 (Order DE 80-14), § 173-400-120, filed 8/20/80. Statutory Authority: RCW 43.21A.080 and 70.94.331. 79-06-012 (Order DE 78-21), § 173-400-120, filed 5/8/79; Order DE 76-38, § 173-400-120, filed 12/21/76. Formerly WAC 18-04-120.]

WAC 173-400-131 Issuance of emission reduction credits. (1) Applicability. The owner(s) or operator(s) of any source(s) may apply to ecology or the authority for

an emission reduction credit (ERC) if the source proposes to reduce its actual emissions rate for any contaminant regulated by state or federal law for which the emission requirement may be stated as an allowable limit in weight of contaminant per unit time for the emissions unit(s) involved.

(2) Time of application. The application for an ERC must be made prior to or within one hundred eighty days after the emission reduction has been accomplished.

(3) Conditions. An ERC may be authorized provided the following conditions have been demonstrated to the satisfaction of ecology or the authority.

(a) The quantity of emissions in the ERC shall be less than or equal to the old allowable emissions rate or the old actual emissions rate, whichever is the lesser, minus the new allowable emissions rate.

(b) The ERC application must include a description of all the changes that are required to accomplish the claimed emissions reduction, such as, new control equipment, process modifications, limitation of hours of operation, permanent shutdown of equipment, specified control practices, etc.

(c) The ERC must be large enough to be readily quantifiable relative to the source strength of the emissions unit(s) involved, but in no case shall the ERC be for less than one ton per year.

(d) No part of the emission reductions claimed for credit shall have been used as part of a determination of net emission increase, nor as part of an offsetting transaction under WAC 173-400-110 (3)(e), nor as part of a bubble transaction under WAC 173-400-120, nor to satisfy NSPS, BACT, or LAER.

(e) Concurrently with or prior to the authorization of an ERC, the applicant shall receive (have received) a regulatory order that establishes total allowable emissions from the source of the contaminant for which the ERC is requested, expressed as weight of contaminant per unit time. The new allowable emissions shall be considered RACT.

(f) The use of any ERC shall be consistent with all other federal, state, and local requirements of the program in which it is used.

(4) Additional information. Within thirty days after the receipt of an ERC application and all supporting data and documentation, ecology or the authority may require the submission of additional information needed to review the application.

(5) Approval. Within thirty days after all the required information has been received, ecology or the authority shall approve or deny the application, based on a finding that conditions in subsection (3)(a) through (e) of this section have been satisfied or not. If the ERC application has not been approved or denied within thirty days, the ERC will be automatically approved. If the application is approved, ecology or the authority shall:

(a) Issue a regulatory order or equivalent document to assure that the emissions from the source will not exceed the proposed new allowable emission rate(s) claimed in the ERC application, expressed as weight of pollutant per unit time. The regulatory order or equivalent document must include all requirements that are necessary to

provide such assurance. If the ERC depends in whole or in part upon the shutdown of equipment, the regulatory order or equivalent document must prohibit the startup of the affected equipment; and,

(b) Issue a certificate of emission reduction credit. The certificate shall specify the issue date, the contaminant(s) involved, the nonattainment area involved, if applicable, and the person to whom the certificate is issued.

[Statutory Authority: Chapter 70.94 RCW. 91-05-064 (Order 90-06), § 173-400-131, filed 2/19/91, effective 3/22/91.]

WAC 173-400-136 Use of emission reduction credits. (1) Permissible use. An ERC may be used to satisfy the requirements for authorization of a bubble under WAC 173-400-120, as a part of a determination of "net emissions increase," as an offsetting reduction to satisfy the requirements for new source review per WAC 173-400-110 (3)(e), to satisfy requirements for PSD review per WAC 173-400-110 (4)(c), or to satisfy requirements for visibility review per WAC 173-400-110 (4)(e).

(2) Surrender of ERC certificate. When an ERC is used under subsection (1) of this section, the certificate for the ERC must be surrendered to the issuing authority. If only a portion of the ERC is used, the amended certificate will be returned to the owner.

(3) Conditions of use. An ERC may be used only for the contaminant(s) for which it was issued. Ecology or the authority may impose additional conditions of use to account for temporal and spatial differences between the emissions unit(s) that generated the ERC and the emissions unit(s) that use the ERC.

(4) Sale of an ERC. An ERC may be sold or otherwise transferred to a person other than the person to whom it was originally issued. Within thirty days after the transfer of ownership, the certificate must be surrendered to the issuing authority. After receiving the certificate, the issuing authority shall reissue the certificate to the new owner.

(5) Time of use. An unused ERC and any unused portion thereof shall expire ten years after date of original issue.

(6) Discount due to change in SIP. If reductions in emissions beyond those identified in the state implementation plan are required to meet an ambient air quality standard, if the standard cannot be met through controls on operating sources, and if the plan must be revised, an ERC may be discounted by ecology or the authority after public involvement per WAC 173-400-171. Any such discount shall not exceed the percentage of additional emission reduction needed to reach attainment.

[Statutory Authority: Chapter 70.94 RCW. 91-05-064 (Order 90-06), § 173-400-136, filed 2/19/91, effective 3/22/91.]

WAC 173-400-141 Prevention of significant deterioration (PSD). Section 40 CFR 52.21, Subparts (b), (c), (d), (e), (f), (g), (h), (i), (j), (k), (l), (m), (n), (o), (p), (r), (t), (v), and (w), Prevention of Significant Deterioration of Air Quality, as in effect on July 1, 1989, are

incorporated by reference with the following additions and modifications:

(1) Construction of "administrator." In 40 CFR 52.21 (b)(17), federally enforceable, (f)(1)(v), (f)(3), and (f)(4)(i), exclusions from increment consumption, (g), redesignation, (l) and (2), air quality models, (p)(2), federal land manager, and (t), disputed permits or redesignations, the word "administrator" shall be construed in its original meaning. In 40 CFR 52.21 (b)(3)(iii) administrator shall mean both the administrator of EPA and the director of ecology.

(2) Contemporaneous. Subpart 40 CFR 52.21 (b)(3)(ii) is changed to read: "An increase or decrease in actual emissions is contemporaneous with the increase from the particular change only if it occurs at the same time or within ten years prior to the change. If a decrease occurred more than one year prior to the change it can only be credited if the decrease has been documented by an emission reduction credit."

(3) Public participation. Subpart 40 CFR 51.166(q) public participation, as in effect July 1, 1989, is hereby incorporated by reference, with the following modifications:

(a) In 40 CFR 51.166 (q)(2)(iv), the word "administrator" shall be construed in its original meaning.

(b) In 40 CFR 51.166 (q)(2)(iv), the phrase "specified time period" shall mean thirty days.

(4) Section 40 CFR 51.166 Subpart (p)(1) Sources Impacting Federal Class I areas - additional requirements - Notice to EPA, as in effect on July 1, 1989, is herein incorporated by reference.

(5) Secondary emissions. Subpart 40 CFR 52.21 (b)(18) is changed to read:

Emissions which would occur as a result of the construction or operation of a major stationary source or major modification, but do not come from the major stationary source or major modification itself. For the purpose of this section, secondary emissions must be specific, well defined, quantifiable, and impact the same general area as the stationary source or modification which causes the secondary emissions. Secondary emissions may include, but are not limited to:

(a) Emissions from ships or trains coming to or from the new or modified stationary source; and

(b) Emissions from any offsite support facility which would not otherwise be constructed or increase its emissions as a result of the construction or operation of the major stationary source or major modification.

(6) List of Class I areas. The following areas are the Class I areas in Washington state as of January 1, 1989:

Mount Rainier National Park
North Cascade National Park
Olympic National Park
Alpine Lakes Wilderness Area
Glacier Peak Wilderness Area
Goat Rocks Wilderness Area
Mount Adams Wilderness Area
Pasayten Wilderness Area.

[Statutory Authority: Chapter 70.94 RCW. 91-05-064 (Order 90-06), § 173-400-141, filed 2/19/91, effective 3/22/91.]

WAC 173-400-151 Retrofit requirements for visibility protection. (1) Determination of best available retrofit technology (BART). Ecology shall identify and analyze each source which may reasonably be anticipated to cause or contribute to impairment of visibility in any mandatory Class I area in Washington and any adjacent state and to determine BART for the contaminant of concern and those additional air pollution control technologies that are to be required to reduce impairment from the source.

(2) Initially defined BART. The owner(s) or operator(s) of any source(s) to which significant visibility impairment of a mandatory Class I area is reasonably attributable shall apply BART for each contaminant contributing to visibility impairment that is emitted at more than 250 tons per year. Each source for which BART is required must install and operate BART as expeditiously as possible, but in no case later than five years after the conditions are included in a regulatory order.

(3) Future definitions of BART. The owner(s) or operator(s) of any source(s) to which significant visibility impairment of a mandatory Class I area is reasonably attributable shall apply BART as new technology becomes available for a contaminant if:

(a) The source emits more than 250 tons per year of the contaminant; and,

(b) The controls representing BART have not previously been required in this section.

(4) Appeal. Any source owner or operator required by this section to install, operate, and maintain BART, may apply to the EPA administrator for an exception from that requirement pursuant to 40 CFR 51.303.

[Statutory Authority: Chapter 70.94 RCW. 91-05-064 (Order 90-06), § 173-400-151, filed 2/19/91, effective 3/22/91.]

WAC 173-400-161 Compliance schedules. (1) **Issuance.** Whenever a source is found to be in violation of an emission standard or other provision of this chapter, ecology or the authority may issue a regulatory order requiring that the source be brought into compliance within a specified time. The order shall contain a schedule for installation, with intermediate benchmark dates and a final completion date, and shall constitute a compliance schedule. Requirements for public involvement (WAC 173-400-171) must be met.

(2) **Federal action.** A source shall be considered to be in compliance with this chapter if all the provisions of its individual compliance schedule included with a regulatory order are being met. Such compliance does not preclude federal enforcement action by the EPA until and unless the schedule is submitted and adopted as an amendment to the state implementation plan.

(3) **Penalties for delayed compliance.** Sources on a compliance schedule but not meeting emissions standards may be subject to penalties as provided in the Federal Clean Air Act.

[Statutory Authority: Chapter 70.94 RCW. 91-05-064 (Order 90-06), § 173-400-161, filed 2/19/91, effective 3/22/91.]

WAC 173-400-171 Public involvement. (1) **Applicability.** Ecology or the authority shall provide public notice prior to the approval or denial of any of the following types of applications or other actions:

(a) Notice of construction for any new or modified source or emissions unit, if a net significant emissions increase for any pollutant regulated by state or federal law would result; or

(b) Any application or other proposed action for which a public hearing is required by PSD rules; or

(c) Any order to determine RACT; or

(d) An order to establish a compliance schedule or a variance; or

(e) The establishment or disestablishment of a nonattainment area, or the changing of the boundaries thereof; or

(f) An order to demonstrate the creditable height of a stack which exceeds the GEP formula height and sixty-five meters, by means of a fluid model or a field study, for the purposes of establishing an emission limitation; or

(g) An order to authorize a bubble; or

(h) Any application or other proposed action made pursuant to this chapter in which there is a substantial public interest according to the discretion of ecology or the authority.

(2) **Public notice.** Public notice shall be made only after all information required by ecology or the authority has been submitted and after applicable preliminary determinations, if any, have been made. The cost of providing public notice shall be borne by the applicant or other initiator of the action. Public notice shall include:

(a) Availability for public inspection in at least one location near the proposed project, of the nonproprietary information submitted by the applicant and of any applicable preliminary determinations, including analyses of the effect(s) on air quality.

(b) Publication in a newspaper of general circulation in the area of the proposed project of notice:

(i) Giving a brief description of the proposal;

(ii) Advising of the location of the documents made available for public inspection;

(iii) Advising of a thirty-day period for submitting written comment to ecology or the authority;

(iv) Advising that a public hearing may be held if ecology or the authority determines within a thirty-day period that significant public interest exists.

(c) A copy of the notice will be sent to the EPA regional administrator.

(3) **Public comment.** No final decision on any application or action of any of the types described in subsection (1) of this section, shall be made until the public comment period has ended and any comments received have been considered. Unless a public hearing is held, the public comment period shall be the thirty-day period for written comment published as provided above. If a public hearing is held the public comment period shall extend through the hearing date and thereafter for such period, if any, as the notice of public hearing may specify.

(4) **Public hearings.** The applicant, any interested governmental entity, any group or any person may request a public hearing within the thirty-day period published as above. Any such request shall indicate the interest of the entity filing it and why a hearing is warranted. Ecology or the authority may, in its discretion, hold a public hearing if it determines significant public interest exists. Any such hearing shall be held upon such notice and at a time(s) and place(s) as ecology or the authority deems reasonable.

(5) **Other requirements of law.** Whenever procedures permitted or mandated by law will accomplish the objectives of public notice and opportunity for comment, such procedures may be used in lieu of the provisions of this section.

(6) **Public information.** Copies of notices of construction, orders, and modifications thereof which are issued hereunder shall be available for public inspection on request at ecology or the authority.

[Statutory Authority: Chapter 70.94 RCW. 91-05-064 (Order 90-06), § 173-400-171, filed 2/19/91, effective 3/22/91.]

WAC 173-400-180 Variance. Any person who owns or is in control of a plant, building, structure, establishment, process, or equipment may apply to ecology for a variance from provisions of this chapter governing the quality, nature, duration, or extent of discharges of air contaminants in accordance with the provisions of RCW 70.94.181.

(1) **Jurisdiction.** Sources in any area over which a local air pollution control authority has jurisdiction shall make application to that authority rather than ecology. Ecology or the authority may grant such variance, but only after public involvement per WAC 173-400-171.

(2) **Full faith and credit.** Variances granted in compliance with state and federal laws by an authority for sources under their jurisdiction will be accepted as variances to this regulation.

(3) **EPA concurrence.** No variance or renewal shall be construed to set aside or delay any requirements of the Federal Clean Air Act except with the approval and written concurrence of the USEPA.

[Statutory Authority: Chapter 70.94 RCW. 91-05-064 (Order 90-06), § 173-400-180, filed 2/19/91, effective 3/22/91.]

WAC 173-400-190 Requirements for nonattainment areas. The development of specific requirements for nonattainment areas shall include consultation with local government in the area and shall include public involvement per WAC 173-400-171.

[Statutory Authority: Chapter 70.94 RCW. 91-05-064 (Order 90-06), § 173-400-190, filed 2/19/91, effective 3/22/91.]

WAC 173-400-200 Creditable stack height and dispersion techniques. (1) **Applicability.** These provisions shall apply to all sources except:

(a) Stacks for which construction had commenced on or before December 31, 1970, except where pollutants are being emitted from such stacks used by sources which were constructed, or reconstructed, or for which

major modifications were carried out after December 31, 1970;

(b) Coal-fired steam electric generating units subject to the provisions of Section 118 of the Federal Clean Air Act, which commenced operation before July 1, 1957, and for whose stacks construction commenced before February 8, 1974;

(c) Flares;

(d) Open burning for agricultural or silvicultural purposes as covered under the smoke management plan;

(e) Residential wood combustion and open burning for which episodic restrictions apply.

These provisions shall not be construed to limit the actual stack height.

(2) Prohibitions. No source may use dispersion techniques or excess stack height to meet ambient air quality standards or PSD increment limitations.

(a) Excess stack height. Excess stack height is that portion of a stack which exceeds the greater of:

(i) Sixty-five meters, measured from the ground level elevation at the base of the stack; or

(ii) $H_g = H + 1.5L$

where: H_g = "good engineering practice" (GEP) stack height, measured from the ground level elevation at the base of the stack,

H = height of nearby structure(s) measured from the ground level elevation at the base of the stack,

L = lesser dimension, height or projected width, of nearby structure(s), subject to the proviso below.

"Nearby," as used in this subsection for purposes of applying the GEP formula means that distance up to five times the lesser of the height or the width dimension of a structure, but not greater than 0.8 kilometer (1/2 mile).

(b) Dispersion techniques. Increasing final exhaust gas plume rise by manipulating source process parameters, exhaust gas parameters, stack parameters, or combining exhaust gases from several existing stacks into one stack; or other selective handling of exhaust gas streams so as to increase the exhaust gas plume rise. This does not include:

(i) The reheating of a gas stream, following the use of a pollution control system, for the purpose of returning the gas to the temperature at which it was originally discharged from the facility generating the gas stream;

(ii) The merging of gas streams where:

(A) The source was originally designed and constructed with such merged gas streams, as demonstrated by the source owner(s) or operator(s).

(B) Such merging is part of a change in operation at the facility that includes the installation of pollution controls and is accompanied by a net reduction in the allowable emissions of a pollutant. This exclusion shall apply only to the emission limitation for the pollutant affected by such change in operation.

(C) Before July 8, 1985, such merging was part of a change in operation at the facility that included the installation of emissions control equipment or was carried out for sound economic or engineering reasons, and not primarily motivated by an intent to gain emissions credit for greater dispersion.

(3) Exception. EPA, ecology, or an authority may require the use of a field study or fluid model to verify the creditable stack height for the source. This also applies to a source seeking credit after the effective date of this rule for an increase in existing stack height up to that established by the GEP formula. A fluid model or field study shall be performed according to the procedures described in the EPA Guideline for Determination of Good Engineering Practice Height (Technical Support Document of the Stack Height Regulations). The creditable height demonstrated by a fluid model or field study shall ensure that the emissions from a stack do not result in excessive concentrations of any air pollutant as a result of atmospheric downwash, wakes, or eddy effects created by the source itself, nearby structures or nearby terrain features.

(a) "Nearby," as used in this subsection for conducting a field study or fluid model, means not greater than 0.8 km, except that the portion of a terrain feature may be considered to be nearby which falls within a distance of up to ten times the maximum height of the feature, not to exceed two miles if such feature achieves a height 0.8 km from the stack that is at least forty percent of the GEP stack height or twenty-six meters, whichever is greater, as measured from the ground-level elevation at the base of the stack. The height of the structure or terrain feature is measured from the ground-level elevation at the base of the stack.

(b) "Excessive concentration" is defined for the purpose of determining creditable stack height under this subsection and means a maximum ground-level concentration owing to a significant downwash effect which contributes to excursion over an ambient air quality standard. For sources subject to PSD review (WAC 173-400-141 and 40 CFR 52.21) an excessive concentration alternatively means a maximum ground-level concentration owing to a significant downwash effect which contributes to excursion over a PSD increment. The emission rate used in this demonstration shall be the emission rate specified in the state implementation plan, or in the absence of such, the actual emission rate of the source. "Significant downwash effect" means a maximum ground-level concentration due to emissions from a stack due in whole or in part to downwash, wakes, and eddy effects produced by nearby structures or nearby terrain features which individually is at least forty percent in excess of the maximum concentration experienced in the absence of such downwash, wakes, or eddy effects.

[Statutory Authority: Chapter 70.94 RCW. 91-05-064 (Order 90-06), § 173-400-200, filed 2/19/91, effective 3/22/91.]

WAC 173-400-205 Adjustment for atmospheric conditions. Varying the rate of emission of a pollutant according to atmospheric conditions or ambient concentrations of that pollutant is prohibited, except as directed according to air pollution episode regulations.

[Statutory Authority: Chapter 70.94 RCW. 91-05-064 (Order 90-06), § 173-400-205, filed 2/19/91, effective 3/22/91.]

WAC 173-400-210 Emission requirements of prior jurisdictions. Any emissions unit that was under the jurisdiction of an authority and now is under the jurisdiction of ecology, shall meet all emission requirements that were applicable prior to transfer of jurisdiction if those standards are more stringent than the standards of this chapter or the specific chapter relating to that source.

[Statutory Authority: Chapter 70.94 RCW. 91-05-064 (Order 90-06), § 173-400-210, filed 2/19/91, effective 3/22/91.]

WAC 173-400-220 Requirements for board members. (1) **Public interest.** A majority of the members of any ecology or authority board shall represent the public interest. A majority of the members of such boards, shall not derive any significant portion of their income from persons subject to enforcement orders pursuant to the state and federal clean air acts. An elected public official and the board shall be presumed to represent the public interest. In the event that a member derives a significant portion of his/her income from persons subject to enforcement orders, he/she shall delegate sole responsibility for administration of any part of the program which involves these persons to an assistant.

(2) **Disclosure.** Each member of any ecology or authority board shall adequately disclose any potential conflict of interest in any matter prior to any action or consideration thereon, and the member shall remove themselves from participation as a board member in any action or voting on such matter.

(3) **Define significant income.** For the purposes of this section, "significant portion of income" shall mean twenty percent of gross personal income for a calendar year. In the case of a retired person, "significant portion of income" shall mean fifty percent of income in the form of pension or retirement benefits from a single source other than Social Security. Income derived from employment with local or state government shall not be considered in the determination of "significant portion of income."

[Statutory Authority: Chapter 70.94 RCW. 91-05-064 (Order 90-06), § 173-400-220, filed 2/19/91, effective 3/22/91.]

WAC 173-400-230 Regulatory actions. Ecology may take any of the following regulatory actions to enforce this chapter to meet the provisions of RCW 43.21B.300 which is incorporated by reference.

(1) **Notice of violation.** Whenever ecology has reason to believe that any provision of this chapter has been violated, it may cause written notice (either by certified mail with return receipt requested or by personal service) to be served on the alleged violator or violators. The notice shall specify the provision of this chapter alleged to be violated and the facts alleged to constitute a violation thereof, and may include an order that necessary corrective action be taken within a reasonable time.

(2) **Civil penalty.** Any person who violates any of the provisions of this chapter shall be subject to a penalty in the form of a fine in an amount not to exceed one thousand dollars per day for each violation. Each such violation shall be separate and distinct and, for a continuing violation, each day's continuance shall be a separate and

distinct violation. The penalty shall be imposed by a notice in writing from personnel of ecology or an authority, describing the violation with reasonable detail. Further, the person is subject to a fine of up to five thousand dollars to be levied by the director if requested by the board of a local authority or if the director determines that the penalty is needed for effective enforcement of this chapter. The maximum daily fine imposed for violation of standards by a specific emissions unit is five thousand dollars. Upon written application submitted to ecology within fifteen days after notice has been received the director may remit or mitigate the penalty upon such terms as the director deems proper and when deemed in the best interest to carry out the purpose of this chapter. The mitigation shall not affect or reduce the penalty imposed by the local board. The maximum daily fine that may be imposed upon any emissions unit for violation of any opacity standard is four hundred dollars.

(3) **Assurance of discontinuance.** Personnel of ecology or an authority may accept an assurance of discontinuance of any act or practice deemed in violation of this chapter. Any such assurance shall specify a time limit during which discontinuance is to be accomplished. Failure to perform the terms of any such assurance shall constitute prima facie proof of a violation of this chapter which make the alleged act or practice unlawful for the purpose of securing an injunction or other relief from the superior court.

(4) **Restraining orders, injunctions.** Whenever any person has engaged in, or is about to engage in, any acts or practices which constitute or will constitute a violation of any provision of this chapter, the director, after notice to such person and an opportunity to comply, may petition the superior court of the county wherein the violation is alleged to be occurring or to have occurred for a restraining order or a temporary or permanent injunction or another appropriate order.

(5) **Emergency episodes.** Ecology may issue such orders as authorized by chapter 173-435 WAC via chapter 70.94 RCW, whenever an air pollution episode forecast is declared.

(6) **Compliance orders.** Ecology may issue a compliance order in conjunction with a notice of violation. The order shall require the recipient of the notice of violation either to take necessary corrective action or to submit a plan for corrective action and a date when such action will be initiated.

[Statutory Authority: Chapter 70.94 RCW. 91-05-064 (Order 90-06), § 173-400-230, filed 2/19/91, effective 3/22/91.]

WAC 173-400-240 Criminal penalties. Persons in violation of Title 173 WAC may be subject to the provisions of RCW 70.94.430.

[Statutory Authority: Chapter 70.94 RCW. 91-05-064 (Order 90-06), § 173-400-240, filed 2/19/91, effective 3/22/91.]

WAC 173-400-250 Appeals. Decisions and orders of ecology or an authority may be appealed to the pollution control hearings board pursuant to chapter 43.21B RCW and chapter 371-08 WAC. PSD permits issued by

ecology are appealable only to ecology pursuant to 40 CFR Part 124.

[Statutory Authority: Chapter 70.94 RCW. 91-05-064 (Order 90-06), § 173-400-250, filed 2/19/91, effective 3/22/91.]

WAC 173-400-260 Conflict of interest. All board members and officials acting or voting on decisions affecting air pollution sources, must comply with the Federal Clean Air Act, as it pertains to conflict of interest, and 40 CFR 103(d) which is incorporated by reference.

[Statutory Authority: Chapter 70.94 RCW. 91-05-064 (Order 90-06), § 173-400-260, filed 2/19/91, effective 3/22/91.]

Chapter 173-403 WAC

IMPLEMENTATION OF REGULATIONS FOR AIR CONTAMINANT SOURCES

WAC

173-403-010 through 173-403-190 Repealed.

DISPOSITION OF SECTIONS FORMERLY CODIFIED IN THIS CHAPTER

- | | | | |
|-------------|--|-------------|---|
| 173-403-010 | Policy and purpose. [Statutory Authority: Chapters 43.21A and 70.94 RCW. 83-09-013 (Order DE 83-12), § 173-403-010, filed 4/11/83. Formerly WAC 18-60-010.] Repealed by 91-05-064 (Order 90-06), filed 2/19/91, effective 3/22/91. Statutory Authority: Chapter 70.94 RCW. | 173-403-075 | Use of emission reduction credits. [Statutory Authority: Chapters 43.21A and 70.94 RCW. 83-18-010 (Order DE 83-22), § 173-403-075, filed 8/26/83.] Repealed by 91-05-064 (Order 90-06), filed 2/19/91, effective 3/22/91. Statutory Authority: Chapter 70.94 RCW. |
| 173-403-020 | Applicability. [Statutory Authority: Chapters 43.21A and 70.94 RCW. 83-09-013 (Order DE 83-12), § 173-403-020, filed 4/11/83.] Repealed by 91-05-064 (Order 90-06), filed 2/19/91, effective 3/22/91. Statutory Authority: Chapter 70.94 RCW. | 173-403-080 | Prevention of significant deterioration (PSD). [Statutory Authority: Chapters 70.94 and 43.21A RCW. 89-02-055 (Order 88-39), § 173-403-080, filed 1/3/89. Statutory Authority: RCW 70.94.331. 85-06-047 (Order 84-49), § 173-403-080, filed 3/6/85. Statutory Authority: RCW 70.94.331, 70.94.141 and 43.21A.060. 84-21-098 (Order 84-27), § 173-403-080, filed 10/19/84. Statutory Authority: Chapters 43.21A and 70.94 RCW. 83-18-010 (Order DE 83-22), § 173-403-080, filed 8/26/83.] Repealed by 91-05-064 (Order 90-06), filed 2/19/91, effective 3/22/91. Statutory Authority: Chapter 70.94 RCW. |
| 173-403-030 | Definitions. [Statutory Authority: Chapters 70.94 and 43.21A RCW. 89-02-055 (Order 88-39), § 173-403-030, filed 1/3/89. Statutory Authority: Chapter 70.94 RCW. 87-19-074 (Order 87-13), § 173-403-030, filed 9/16/87. Statutory Authority: RCW 70.94.331. 86-23-014 (Order 86-30), § 173-403-030, filed 11/10/86; 85-06-047 (Order 84-49), § 173-403-030, filed 3/6/85. Statutory Authority: Chapters 43.21A and 70.94 RCW. 83-18-010 (Order DE 83-22), § 173-403-030, filed 8/26/83; 83-09-013 (Order DE 83-12), § 173-403-030, filed 4/11/83. Formerly WAC 18-60-020.] Repealed by 91-05-064 (Order 90-06), filed 2/19/91, effective 3/22/91. Statutory Authority: Chapter 70.94 RCW. | 173-403-090 | Retrofit requirements for visibility protection. [Statutory Authority: Chapters 43.21A and 70.94 RCW. 83-18-010 (Order DE 83-22), § 173-403-090, filed 8/26/83.] Repealed by 91-05-064 (Order 90-06), filed 2/19/91, effective 3/22/91. Statutory Authority: Chapter 70.94 RCW. |
| 173-403-050 | New source review (NSR). [Statutory Authority: Chapters 70.94 and 43.21A RCW. 89-02-055 (Order 88-39), § 173-403-050, filed 1/3/89. Statutory Authority: RCW 70.94.331. 85-06-047 (Order 84-49), § 173-403-050, filed 3/6/85. Statutory Authority: RCW 70.94.331, 70.94.141 and 43.21A.060. 84-21-098 (Order 84-27), § 173-403-050, filed 10/19/84. Statutory Authority: Chapters 43.21A and 70.94 RCW. 83-18-010 (Order DE 83-22), § 173-403-050, filed 8/26/83; 83-09-013 (Order DE 83-12), § 173-403-050, filed 4/11/83.] Repealed by 91-05-064 (Order 90-06), filed 2/19/91, effective 3/22/91. Statutory Authority: Chapter 70.94 RCW. | 173-403-100 | Compliance schedules. [Statutory Authority: Chapters 43.21A and 70.94 RCW. 83-09-013 (Order DE 83-12), § 173-403-100, filed 4/11/83.] Repealed by 91-05-064 (Order 90-06), filed 2/19/91, effective 3/22/91. Statutory Authority: Chapter 70.94 RCW. |
| 173-403-060 | Bubble rules. [Statutory Authority: Chapters 43.21A and 70.94 RCW. 83-18-010 (Order DE 83-22), § 173-403-060, filed 8/26/83.] Repealed by 91-05-064 (Order 90-06), filed 2/19/91, effective 3/22/91. Statutory Authority: Chapter 70.94 RCW. | 173-403-110 | Public involvement. [Statutory Authority: RCW 70.94.331. 86-23-014 (Order 86-30), § 173-403-110, filed 11/10/86. Statutory Authority: Chapters 43.21A and 70.94 RCW. 83-18-010 (Order DE 83-22), § 173-403-110, filed 8/26/83. 83-09-013 (Order DE 83-12), § 173-403-110, filed 4/11/83.] Repealed by 91-05-064 (Order 90-06), filed 2/19/91, effective 3/22/91. Statutory Authority: Chapter 70.94 RCW. |
| 173-403-070 | Issuance of emission reduction credits. [Statutory Authority: RCW 70.94.331. 85-06-047 (Order 84-49), § 173-403-070, filed 3/6/85. Statutory Authority: RCW 70.94.331, 70.94.141 and 43.21A.060. 84-21-098 (Order 84-27), § 173-403-070, filed 10/19/84. | 173-403-120 | Variance. [Statutory Authority: Chapters 43.21A and 70.94 RCW. 83-09-013 (Order DE 83-12), § 173-403-120, filed 4/11/83.] Repealed by 91-05-064 (Order 90-06), filed 2/19/91, effective 3/22/91. Statutory Authority: Chapter 70.94 RCW. |
| | | 173-403-130 | Requirements for nonattainment areas. [Statutory Authority: Chapters 43.21A and 70.94 RCW. 83-09-013 (Order DE 83-12), § 173-403-130, filed 4/11/83.] Repealed by 91-05-064 (Order 90-06), filed 2/19/91, effective 3/22/91. Statutory Authority: Chapter 70.94 RCW. |
| | | 173-403-141 | Creditable stack height and dispersion techniques. [Statutory Authority: RCW 70.94.331. 86-23-014 (Order 86-30), § 173-403-141, filed 11/10/86.] Repealed by 91-05-064 (Order 90-06), filed 2/19/91, effective 3/22/91. Statutory Authority: Chapter 70.94 RCW. |
| | | 173-403-145 | Adjustment for atmospheric conditions. [Statutory Authority: RCW 70.94.331. 86-23-014 (Order 86-30), § 173-403-145, filed 11/10/86.] Repealed by 91-05-064 (Order 90-06), filed 2/19/91, effective 3/22/91. Statutory Authority: Chapter 70.94 RCW. |
| | | 173-403-150 | Maintenance of pay. [Statutory Authority: Chapters 43.21A and 70.94 RCW. 83-09-013 (Order DE 83-12), § 173-403-150, filed 4/11/83.] Repealed by 91-05-064 (Order 90-06), filed 2/19/91, effective 3/22/91. Statutory Authority: Chapter 70.94 RCW. |
| | | 173-403-160 | Requirements for boards and director. [Statutory Authority: Chapters 43.21A and 70.94 RCW. 83-09-013 (Order DE 83-12), § 173-403-160, filed 4/11/83.] Repealed by 91-05-064 (Order 90-06), filed 2/19/91, effective 3/22/91. Statutory Authority: Chapter 70.94 RCW. |

- 173-403-170 Regulatory actions. [Statutory Authority: RCW 70.94.331, 70.94.141 and 43.21A.060. 84-21-098 (Order 84-27), § 173-403-170, filed 10/19/84. Statutory Authority: Chapters 43.21A and 70.94 RCW. 83-09-013 (Order DE 83-12), § 173-403-170, filed 4/11/83.] Repealed by 91-05-064 (Order 90-06), filed 2/19/91, effective 3/22/91. Statutory Authority: Chapter 70.94 RCW.
- 173-403-180 Criminal penalties. [Statutory Authority: Chapters 43.21A and 70.94 RCW. 83-09-013 (Order DE 83-12), § 173-403-180, filed 4/11/83.] Repealed by 91-05-064 (Order 90-06), filed 2/19/91, effective 3/22/91. Statutory Authority: Chapter 70.94 RCW.
- 173-403-190 Appeals. [Statutory Authority: Chapters 43.21A and 70.94 RCW. 83-09-013 (Order DE 83-12), § 173-403-190, filed 4/11/83.] Repealed by 91-05-064 (Order 90-06), filed 2/19/91, effective 3/22/91. Statutory Authority: Chapter 70.94 RCW.

WAC 173-403-010 through 173-403-190 Repealed.
See Disposition Table at beginning of this chapter.

Chapter 173-405 WAC KRAFT PULPING MILLS

WAC

- 173-405-012 Statement of purpose.
- 173-405-021 Definitions.
- 173-405-033 Standards of performance.
- 173-405-035 Emission standards for sources emitting hazardous air pollutants.
- 173-405-040 Emission standards.
- 173-405-041 Repealed.
- 173-405-045 Creditable stack height and dispersion techniques.
- 173-405-061 More restrictive emission standards.
- 173-405-072 Monitoring requirements.
- 173-405-077 Report of startup, shutdown, breakdown or upset conditions.
- 173-405-078 Emission inventory.
- 173-405-086 New source review (NSR).
- 173-405-087 Prevention of significant deterioration (PSD).
- 173-405-091 Special studies.

DISPOSITION OF SECTIONS FORMERLY CODIFIED IN THIS CHAPTER

- 173-405-041 Emission requirements of prior jurisdictions. [Statutory Authority: RCW 70.94.331. 85-06-048 (Order 84-50), § 173-405-041, filed 3/6/85.] Repealed by 91-05-064 (Order 90-06), filed 2/19/91, effective 3/22/91. Statutory Authority: Chapter 70.94 RCW.

WAC 173-405-012 Statement of purpose. These rules are enacted under the provisions of the Washington Clean Air Act as amended (RCW 70.94.395) to:

- (1) Assume state jurisdiction over emissions from kraft pulping mills to provide for the systematic control of air pollution in this industry and for the proper development of the state's natural resources; and
- (2) Establish technically feasible and reasonably attainable standards and revise such standards as new information and better technology are developed and become available.

[Statutory Authority: Chapter 70.94 RCW. 91-05-064 (Order 90-06), § 173-405-012, filed 2/19/91, effective 3/22/91. Statutory Authority: RCW 70.94.331 and 70.94.395. 80-11-060 (Order DE 80-15), § 173-405-012, filed 8/20/80.]

WAC 173-405-021 Definitions. The definitions of terms contained in chapter 173-400 WAC are incorporated into this chapter by reference. Unless a different meaning is clearly required by context, the following words and phrases as used in this chapter shall have the following meanings:

(1) "Kraft mill" means any manufacturing facility which uses an alkaline solution containing sodium hydroxide and/or sodium sulfide, and any other chemical pulping facility, except those covered by chapter 173-410 WAC, to produce pulp and/or paper products from wood fibers. For the purposes of this regulation "kraft mill" is equivalent to "source."

(2) "Noncondensibles" means gases and vapors from the digestion and evaporation processes of a mill that are not condensed with the equipment used in those processes.

(3) "Recovery furnace stack" means the stack from which the products of combustion from the recovery furnace are emitted to the ambient air.

[Statutory Authority: Chapter 70.94 RCW. 91-05-064 (Order 90-06), § 173-405-021, filed 2/19/91, effective 3/22/91. Statutory Authority: RCW 70.94.331. 85-06-048 (Order 84-50), § 173-405-021, filed 3/6/85. Statutory Authority: Chapters 43.21A and 70.94 RCW. 83-09-036 (Order DE 83-13), § 173-405-021, filed 4/15/83. Statutory Authority: RCW 70.94.331 and 70.94.395. 80-11-060 (Order DE 80-15), § 173-405-021, filed 8/20/80. Statutory Authority: RCW 43.21A.080, 70.94.011, 70.94.152, and 70.94.331. 80-04-049 (Order DE 80-7), § 173-405-021, filed 3/21/80; Order DE 76-35, § 173-405-021, filed 12/28/76. Formerly WAC 18-36-021.]

WAC 173-405-033 Standards of performance. The provisions of WAC 173-400-115 "Standards of performance for new sources" shall apply to all sources to which this chapter is applicable.

[Statutory Authority: Chapter 70.94 RCW. 91-05-064 (Order 90-06), § 173-405-033, filed 2/19/91, effective 3/22/91. Statutory Authority: Chapters 43.21A and 70.94 RCW. 83-09-036 (Order DE 83-13), § 173-405-033, filed 4/15/83. Statutory Authority: RCW 70.94.331 and 70.94.395. 80-11-060 (Order DE 80-15), § 173-405-033, filed 8/20/80. Statutory Authority: RCW 43.21A.080, 70.94.011, 70.94.152, and 70.94.331. 80-04-049 (Order DE 80-7), § 173-405-033, filed 3/21/80.]

WAC 173-405-035 Emission standards for sources emitting hazardous air pollutants. The provisions of WAC 173-400-075 "Emission standards for sources emitting hazardous air pollutants" shall apply to all sources to which this chapter is applicable.

[Statutory Authority: Chapter 70.94 RCW. 91-05-064 (Order 90-06), § 173-405-035, filed 2/19/91, effective 3/22/91. Statutory Authority: Chapters 43.21A and 70.94 RCW. 83-18-010 (Order DE 83-22), § 173-405-035, filed 8/26/83.]

WAC 173-405-040 Emission standards. In addition to the general applicability of chapters 173-400 and 173-490 WAC to all emission sources; no kraft pulp mill shall cause or permit air contaminant emissions in excess of the limits listed below. Specific emission standards listed in this chapter will take precedence over the general emission standards of chapter 173-400 WAC.

(1) Recovery furnaces.

(a) The particulate emissions from each recovery furnace stack shall not exceed 0.23 grams of particulate per

dry cubic meter at standard conditions (0.10 grains/dscf) corrected to eight percent oxygen averaged over three one hour tests.

(b) The TRS emissions from each recovery furnace stack constructed before January 1, 1970, and for recovery furnaces that have direct contact evaporators, shall not exceed 17.5 ppm corrected to eight percent oxygen for a daily average.

(c) The TRS emissions from each recovery furnace constructed after January 1, 1970, which does not have a contact evaporator, shall not exceed 5.0 ppm corrected to eight percent oxygen for a daily average.

(2) Smelt dissolver tank vent. The particulate emissions from smelt dissolver tank vents shall not exceed 0.15 grams per kilogram (0.30 pounds per ton) of solids fired at the associated recovery furnace.

(3) Lime kilns.

(a) The particulate emission from each lime kiln stack shall not exceed 0.30 grams of particulate per dry cubic meter (0.13 grains/dscf) at standard conditions corrected to ten percent oxygen.

(b) The TRS emissions from any lime kiln stack shall not exceed eighty ppm expressed as hydrogen sulfide for more than two consecutive hours in any one day.

(c) The average daily emission of TRS from any lime kiln stack shall not exceed fifty ppm. After January 1, 1985, TRS emissions from each lime kiln stack shall not exceed twenty ppm corrected to ten percent oxygen for a daily average.

(4) Other TRS emissions units. Noncondensibles from digesters, multiple-effect evaporators and condensate stripper system shall at all times be treated to reduce the emissions of TRS equal to the reduction achieved by thermal oxidation in a lime kiln. A backup treatment system or equivalent approved by ecology must be installed to assure continual treatment.

(5) Other particulate emissions units. The emission of particulates from emissions units other than kraft recovery furnaces, lime kilns, or smelt dissolving tank vents, shall not exceed the following maximums:

(a) 0.46 grams per dry cubic meter at standard conditions (0.2 grains/dscf) corrected to seven percent oxygen, for units which combust wood and wood residue to produce steam and which commenced construction prior to January 1, 1983.

(b) 0.12 grams per dry cubic meter at standard conditions (0.05 grains/dscf) corrected to seven percent oxygen, for units which combust fuel other than wood and wood residue to produce steam, and which commenced construction after January 1, 1983.

(c) 0.23 grams per dry cubic meter at standard conditions (0.1 grains/dscf) corrected to seven percent oxygen in the case of combustion units, for units not classified under (a) or (b) of this subsection.

(6) Opacity. No person shall cause or allow the emission of a plume from any kraft recovery furnace, smelt dissolver tank, or lime kiln, which has an average opacity greater than thirty-five percent for more than six consecutive minutes in any sixty minute period, except as described in WAC 173-405-040(7).

No person shall cause or allow the emission of a plume, from any emissions unit other than a kraft recovery furnace, smelt dissolver tank, or lime kiln, which has an average opacity greater than twenty percent for more than six consecutive minutes in any sixty minute period, except that these provisions do not apply when the emissions occur due to soot blowing/grate cleaning and the operator can demonstrate that the emissions will not exceed twenty percent opacity for more than fifteen minutes in any eight consecutive hours. The intent of this provision is to permit soot blowing and grate cleaning necessary to the operation of the boiler facility. This practice, except for testing and trouble shooting, is to be scheduled for the same approximate times each day and ecology shall be advised of the schedule.

There shall be no more than one violation notice issued in any sixty minute period.

These provisions (of WAC 173-405-040(6)) shall not apply when the presence of uncombined water is the only reason for the opacity of the plume to exceed the applicable maximum.

(7) Each mill may petition for, and ecology may establish by regulatory order, alternate opacity limits for a specific kraft recovery furnace or lime kiln, providing:

(a) The mill can demonstrate compliance; with all other applicable emission limits; and

(b) Best practicable operation and maintenance procedures, as approved by ecology, are continuously employed.

(8) Any person electing to apply for exceptions per the provisions of WAC 173-405-040(7) shall submit a program acceptable to ecology. The program shall include the following information: The amount and concentration of suspended particulate material emitted during best practicable operating procedures, opacity recorded at such emission level, the type of equipment and procedures which will be used to demonstrate compliance and the time required for installation of the equipment.

(9) The opacity provisions of this chapter shall apply until an application is received by ecology, petitioning for a revised limit as allowed by WAC 173-405-040(7). After a petition is received, enforcement of the opacity provisions will be stayed until the application is rejected or a new limit is established.

(10) Operation and maintenance. At all times, including periods of abnormal operation and upset conditions, owners and operators shall, to the extent practicable, maintain and operate any affected facility, including associated air pollution control equipment, in a manner consistent with good air pollution control practice. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to ecology which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

(11) SO₂.

(a) The emission of sulfur dioxide from any recovery furnace or lime kiln shall not exceed five hundred ppm for an hourly average, corrected to eight percent oxygen

for a recovery furnace or to ten percent oxygen for a lime kiln.

(b) The emission of sulfur dioxide from any emissions unit other than a recovery furnace or lime kiln shall not exceed one thousand ppm for an hourly average, corrected to seven percent oxygen for combustion units.

(12) Source testing. To demonstrate compliance with this chapter, the provisions of WAC 173-400-105 shall apply to all sources to which this chapter is applicable.

[Statutory Authority: Chapter 70.94 RCW. 91-05-064 (Order 90-06), § 173-405-040, filed 2/19/91, effective 3/22/91. Statutory Authority: Chapters 43.21A and 70.94 RCW. 83-09-036 (Order DE 83-13), § 173-405-040, filed 4/15/83. Statutory Authority: RCW 70.94.331 and 70.94.395. 80-11-060 (Order DE 80-15), § 173-405-040, filed 8/20/80.]

WAC 173-405-041 Repealed. See Disposition Table at beginning of this chapter.

WAC 173-405-045 Creditable stack height and dispersion techniques. The provisions of WAC 173-400-200 shall apply to all sources to which this chapter is applicable.

[Statutory Authority: Chapter 70.94 RCW. 91-05-064 (Order 90-06), § 173-405-045, filed 2/19/91, effective 3/22/91. Statutory Authority: Chapters 70.94 and 43.21A RCW. 88-01-057 (Order 87-50), § 173-405-045, filed 12/16/87.]

WAC 173-405-061 More restrictive emission standards. Ecology may establish more restrictive emission standards for new mills or for mills expanding existing facilities pursuant to WAC 173-400-110.

[Statutory Authority: Chapter 70.94 RCW. 91-05-064 (Order 90-06), § 173-405-061, filed 2/19/91, effective 3/22/91. Statutory Authority: Chapters 43.21A and 70.94 RCW. 83-09-036 (Order DE 83-13), § 173-405-061, filed 4/15/83; Order DE 76-35, § 173-405-061, filed 12/28/76. Formerly WAC 18-36-061.]

WAC 173-405-072 Monitoring requirements. Each mill shall conduct routine monitoring of emissions in accordance with a program that has been approved by ecology. Results of the monitoring shall be reported within fifteen days of the end of each calendar month and shall include data as follows:

(1) Particulate: The results of particulate measurements made on each source during the month.

(2) TRS:

(a) The average TRS concentration expressed in units of the standard for each recovery furnace and lime kiln stack.

(b) The date, time and concentration of TRS for each TRS emissions violation and the total numbers of hours that exceed the standard.

(3) Opacity or other continuous monitor:

(a) The date and time of opacity in excess of the standard.

(b) If equipment for continuous monitoring of opacity is not available, continuous monitoring of operating parameters may be required by a regulatory order as an alternate. If an alternate is approved, the date and time of each occurrence in excess of the regulatory order must be reported.

(4) Production: The average daily production of air-dried unbleached pulp.

(5) Other data: Each kraft mill shall furnish, upon request of ecology, such other pertinent data required to evaluate the mill's emissions or emission control program.

[Statutory Authority: Chapter 70.94 RCW. 91-05-064 (Order 90-06), § 173-405-072, filed 2/19/91, effective 3/22/91. Statutory Authority: RCW 70.94.331 and 70.94.395. 80-11-060 (Order DE 80-15), § 173-405-072, filed 8/20/80.]

WAC 173-405-077 Report of startup, shutdown, breakdown or upset conditions. The provisions of WAC 173-400-105(5) shall apply to all sources to which this chapter is applicable.

[Statutory Authority: Chapter 70.94 RCW. 91-05-064 (Order 90-06), § 173-405-077, filed 2/19/91, effective 3/22/91. Statutory Authority: Chapters 43.21A and 70.94 RCW. 83-09-036 (Order DE 83-13), § 173-405-077, filed 4/15/83. Statutory Authority: RCW 70.94.331 and 70.94.395. 80-11-060 (Order DE 80-15), § 173-405-077, filed 8/20/80. Statutory Authority: RCW 43.21A.080, 70.94.011, 70.94.152, and 70.94.331. 80-04-049 (Order DE 80-7), § 173-405-077, filed 3/21/80.]

WAC 173-405-078 Emission inventory. The provisions of WAC 173-400-105(1) shall apply to all sources to which this chapter is applicable.

[Statutory Authority: Chapter 70.94 RCW. 91-05-064 (Order 90-06), § 173-405-078, filed 2/19/91, effective 3/22/91. Statutory Authority: Chapters 43.21A and 70.94 RCW. 89-02-055 (Order 88-39), § 173-405-078, filed 1/3/89; 83-09-036 (Order DE 83-13), § 173-405-078, filed 4/15/83. Statutory Authority: RCW 70.94.331 and 70.94.395. 80-11-060 (Order DE 80-15), § 173-405-078, filed 8/20/80. Statutory Authority: RCW 43.21A.080, 70.94.011, 70.94.152, and 70.94.331. 80-04-049 (Order DE 80-7), § 173-405-078, filed 3/21/80.]

WAC 173-405-086 New source review (NSR). The provisions of WAC 173-400-110 shall apply to all new sources and emissions units to which this chapter is applicable.

[Statutory Authority: Chapter 70.94 RCW. 91-05-064 (Order 90-06), § 173-405-086, filed 2/19/91, effective 3/22/91. Statutory Authority: Chapters 43.21A and 70.94 RCW. 83-09-036 (Order DE 83-13), § 173-405-086, filed 4/15/83. Statutory Authority: RCW 70.94.331 and 70.94.395. 80-11-060 (Order DE 80-15), § 173-405-086, filed 8/20/80. Statutory Authority: RCW 43.21A.080, 70.94.011, 70.94.152, and 70.94.331. 80-04-049 (Order DE 80-7), § 173-405-086, filed 3/21/80.]

WAC 173-405-087 Prevention of significant deterioration (PSD). The provisions of WAC 173-400-141 shall apply to all new major sources and major modifications to which this chapter is applicable.

[Statutory Authority: Chapter 70.94 RCW. 91-05-064 (Order 90-06), § 173-405-087, filed 2/19/91, effective 3/22/91. Statutory Authority: Chapters 70.94 and 43.21A RCW. 88-01-057 (Order 87-50), § 173-405-087, filed 12/16/87.]

WAC 173-405-091 Special studies. Ecology may require such additional special studies relevant to process emissions and establish completion dates as it determines necessary.

[Statutory Authority: Chapter 70.94 RCW. 91-05-064 (Order 90-06), § 173-405-091, filed 2/19/91, effective 3/22/91; Order DE 76-35, § 173-405-091, filed 12/28/76. Formerly WAC 18-36-091.]

**Chapter 173-410 WAC
SULFITE PULPING MILLS**

WAC

173-410-012	Statement of purpose.
173-410-021	Definitions.
173-410-035	Emission standards for sources emitting hazardous air pollutants.
173-410-040	Emission standards.
173-410-042	Repealed.
173-410-045	Creditable stack height and dispersion techniques.
173-410-062	Monitoring requirements.
173-410-067	Report of startup, shutdown, breakdown or upset conditions.
173-410-071	Emission inventory.
173-410-086	New source review (NSR).
173-410-087	Prevention of significant deterioration (PSD).
173-410-100	Special studies.

DISPOSITION OF SECTIONS FORMERLY CODIFIED IN THIS CHAPTER

173-410-042	Emission requirements of prior jurisdictions. [Statutory Authority: RCW 70.94.331. 85-06-048 (Order 84-50), § 173-410-042, filed 3/6/85.] Repealed by 91-05-064 (Order 90-06), filed 2/19/91, effective 3/22/91. Statutory Authority: Chapter 70.94 RCW.
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WAC 173-410-012 Statement of purpose. These rules are enacted under the provisions of the Washington Clean Air Act as amended (RCW 70.94.395) to:

(1) Assume state jurisdiction over emissions from sulfite pulping mills to provide for the systematic control of air pollution in this industry and for the proper development of the state's natural resources; and

(2) Establish technically feasible and reasonably attainable standards and revise such standards as new information and better technology are developed and become available.

[Statutory Authority: Chapter 70.94 RCW. 91-05-064 (Order 90-06), § 173-410-012, filed 2/19/91, effective 3/22/91. Statutory Authority: RCW 70.94.331 and 70.94.395. 80-11-061 (Order DE 80-16), § 173-410-012, filed 8/20/80.]

WAC 173-410-021 Definitions. The definitions of terms contained in chapter 173-400 WAC are incorporated into this chapter by reference. Unless a different meaning is clearly required by context, the following words and phrases as used in this chapter, shall have the following meanings:

(1) "Acid plant" means the facility in which the cooking liquor is either manufactured or fortified when not associated with a recovery system.

(2) "Average daily emission" means total weight of an air contaminant emitted in each month, divided by the number of days of production that month.

(3) "Average daily production" means air dried tons of unbleached pulp produced in a month, divided by the number of days of production in that month.

(4) "Blow system" includes the storage chest, tank or pit to which the digester pulp is discharged following the cook.

(5) "Recovery system" means the process by which all or part of the cooking chemicals may be recovered, and cooking liquor regenerated from spent cooking liquor,

including evaporation, combustion, dissolving, fortification, storage facilities, and emission control equipment associated with the recovery cycle.

(6) "Sulfite pulping mill" means any manufacturing facility which uses a cooking liquor consisting of sulfuric acid, a sulfite or bisulfite salt alone or in any combination, with or without additional mechanical refining or delignification to produce pulp, pulp products or cellulose from wood fibers. For the purposes of this regulation "sulfite pulping mill" is equivalent to "source."

[Statutory Authority: Chapter 70.94 RCW. 91-05-064 (Order 90-06), § 173-410-021, filed 2/19/91, effective 3/22/91. Statutory Authority: RCW 70.94.331. 85-06-048 (Order 84-50), § 173-410-021, filed 3/6/85. Statutory Authority: Chapters 43.21A and 70.94 RCW. 83-09-036 (Order DE 83-13), § 173-410-021, filed 4/15/83. Statutory Authority: RCW 70.94.331 and 70.94.395. 80-11-061 (Order DE 80-16), § 173-410-021, filed 8/20/80. Statutory Authority: RCW 43.21A.080, 70.94.011, 70.94.152, and 70.94.331. 80-04-050 (Order DE 80-8), § 173-410-021, filed 3/21/80; Order DE 76-36, § 173-410-021, filed 12/28/76. Formerly WAC 18-38-021.]

WAC 173-410-035 Emission standards for sources emitting hazardous air pollutants. The provisions of WAC 173-400-075 "Emission standards for sources emitting hazardous air pollutants" shall apply to all sources to which this chapter is applicable.

[Statutory Authority: Chapter 70.94 RCW. 91-05-064 (Order 90-06), § 173-410-035, filed 2/19/91, effective 3/22/91. Statutory Authority: Chapters 43.21A and 70.94 RCW. 83-18-010 (Order DE 83-22), § 173-410-035, filed 8/26/83.]

WAC 173-410-040 Emission standards. In addition to the general applicability of chapters 173-400 and 173-490 WAC to all emission sources; no sulfite pulping mill shall cause or permit air contaminant emissions in excess of the limits listed below. Specific emission standards listed in this chapter will take precedence over the general emission standards of chapter 173-400 WAC.

(1) Sulfur dioxide.

(a) The total average daily emissions from a sulfite pulping mill, or a portion of a sulfite pulping mill which practices incineration of the spent sulfite liquor, shall not exceed ten grams of sulfur dioxide per kilogram (twenty pounds per ton) of air dried, unbleached pulp produced.

(b) The total average daily emissions from a sulfite pulping mill, or a portion of a sulfite pulping mill that does not incinerate the spent sulfite liquor, shall not exceed two grams of sulfur dioxide per kilogram (four pounds per ton) of air dried, unbleached pulp produced.

(c) The blow system emissions shall not exceed 0.1 grams of sulfur dioxide per minute, on a fifteen minute average, per kilogram (0.2 pounds per ton) of air dried, unbleached pulp discharged from the digester.

(d) Emissions from the recovery system and acid plant shall not exceed 800 ppm of sulfur dioxide for any hourly average.

(e) Emissions from recovery systems constructed after January 24, 1972, shall not exceed 300 ppm of sulfur dioxide for any hourly average.

(f) Emissions from any emissions unit, other than a recovery system, a blow system or an acid plant, shall not exceed 1000 ppm of sulfur dioxide, corrected to

seven percent oxygen in the case of combustion unit, for any hourly average.

(2) Particulate.

(a) Emissions of particulate from recovery systems constructed before January 24, 1972, shall not exceed 0.23 grams per dry cubic meter of exhaust at standard conditions (0.10 grains/dscf) corrected to eight percent oxygen.

(b) Emissions of particulate matter from recovery systems constructed after January 24, 1972, shall not exceed 0.14 grams per dry cubic meter of exhaust at standard conditions (0.06 grains/dscf) corrected to eight percent oxygen.

(c) The emission of particulates from emissions units other than acid plants or recovery systems shall not exceed the following maximums:

(i) 0.46 grams per dry cubic meter at standard conditions (0.2 grains/dscf) corrected to seven percent oxygen, for units which combust wood and wood residue to produce steam and which commenced construction prior to January 1, 1983.

(ii) 0.12 grams per dry cubic meter at standard conditions (0.05 grains/dscf) corrected to seven percent oxygen, for units which combust fuel other than wood and wood residue to produce steam, and which commenced construction after January 1, 1983.

(iii) 0.23 grams per dry cubic meter at standard conditions (0.1 grains/dscf) corrected to seven percent oxygen in the case of combustion units, for units not classified under (c) (i) or (ii) of this subsection.

(3) Opacity. No person shall cause or allow the emission of a plume from a recovery system or acid plant which has an average opacity greater than thirty-five percent, for more than six consecutive minutes in any sixty minute period, except as allowed per RCW 70.94.331 (2)(c).

(4) Operation and maintenance. At all times, including periods of abnormal operations and upset conditions, owners and operators shall, to the extent practicable, maintain and operate any affected facility, including associated air pollution control equipment, in a manner consistent with good air pollution control practice. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to ecology which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

(5) No recovery system shall emit total reduced sulfur (TRS) gases in excess of 17.5 ppm for a daily average.

(6) More restrictive limits. Ecology may set more restrictive emissions limits than the specific limits set in this chapter (after public involvement and hearing), if there is reason to believe that the emission(s) from a source is a cause of public nuisance or a cause of violation of ambient air quality standards. The source shall, within ninety days from notification of the more restrictive limits, achieve operation that will prevent further recurrence of the nuisance or violation.

(7) Source testing. To demonstrate compliance with this chapter, the provisions of WAC 173-400-105 shall apply to all sources to which this chapter is applicable.

[Statutory Authority: Chapter 70.94 RCW. 91-05-064 (Order 90-06), § 173-410-040, filed 2/19/91, effective 3/22/91. Statutory Authority: Chapters 43.21A and 70.94 RCW. 83-09-036 (Order DE 83-13), § 173-410-040, filed 4/15/83. Statutory Authority: RCW 70.94.331 and 70.94.395. 80-11-061 (Order DE 80-16), § 173-410-040, filed 8/20/80.]

WAC 173-410-042 Repealed. See Disposition Table at beginning of this chapter.

WAC 173-410-045 Creditable stack height and dispersion techniques. The provisions of WAC 173-400-200 shall apply to all sources to which this chapter is applicable.

[Statutory Authority: Chapter 70.94 RCW. 91-05-064 (Order 90-06), § 173-410-045, filed 2/19/91, effective 3/22/91. Statutory Authority: Chapters 70.94 and 43.21A RCW. 88-01-057 (Order 87-50), § 173-410-045, filed 12/16/87.]

WAC 173-410-062 Monitoring requirements. Each mill shall conduct routine monitoring of emissions in accordance with a program that has been approved by ecology. Results of monitoring shall be reported within fifteen days of the end of each calendar month and shall include data as follows:

(1) For the recovery system and acid plant:

(a) The average daily emissions of sulfur dioxide expressed as grams SO₂ per kilogram of air dried, unbleached pulp produced and the kilograms of SO₂ per day.

(b) Daily average concentration of sulfur dioxide.

(c) The date, time and concentration for each sulfur dioxide emission violation and the total number of hours that exceed the standard.

(d) The results of particulate tests conducted during the month.

(2) For the blow system:

(a) The grams of sulfur dioxide per minute, on a fifteen minute average, per kilogram of air dried, unbleached pulp discharged from the digester.

(b) The average daily production of air dried, unbleached pulp.

(3) Each mill shall furnish, upon request of ecology, such other pertinent data required to evaluate the mill's emission control program.

(4) All measurements shall be made in accordance with WAC 173-400-105.

(5) Each mill shall be required to establish a program approved by ecology for continuous opacity monitoring to demonstrate compliance with WAC 173-410-040(3) and to report the results to ecology in a format and on a schedule set by regulatory order. If equipment for continuous monitoring of opacity is not available, continuous monitoring of operating parameters may be required as an alternate until continuous opacity monitoring equipment is available.

[Statutory Authority: Chapter 70.94 RCW. 91-05-064 (Order 90-06), § 173-410-062, filed 2/19/91, effective 3/22/91. Statutory Authority: RCW 70.94.331 and 70.94.395. 80-11-061 (Order DE 80-16), § 173-410-062, filed 8/20/80.]

WAC 173-410-067 Report of startup, shutdown, breakdown or upset conditions. The provisions of WAC 173-400-105(5) shall apply to all sources to which this chapter is applicable.

[Statutory Authority: Chapter 70.94 RCW. 91-05-064 (Order 90-06), § 173-410-067, filed 2/19/91, effective 3/22/91. Statutory Authority: Chapters 43.21A and 70.94 RCW. 83-09-036 (Order DE 83-13), § 173-410-067, filed 4/15/83. Statutory Authority: RCW 70.94.331 and 70.94.395. 80-11-061 (Order DE 80-16), § 173-410-067, filed 8/20/80. Statutory Authority: RCW 43.21A.080, 70.94.011, 70.94.152, and 70.94.331. 80-04-050 (Order DE 80-8), § 173-410-067, filed 3/21/80.]

WAC 173-410-071 Emission inventory. The provisions of WAC 173-400-105(1) shall apply to all sources to which this chapter is applicable.

[Statutory Authority: Chapter 70.94 RCW. 91-05-064 (Order 90-06), § 173-410-071, filed 2/19/91, effective 3/22/91. Statutory Authority: Chapters 43.21A and 70.94 RCW. 89-02-055 (Order 88-39), § 173-410-071, filed 1/3/89; 83-09-036 (Order DE 83-13), § 173-410-071, filed 4/15/83. Statutory Authority: RCW 70.94.331 and 70.94.395. 80-11-061 (Order DE 80-16), § 173-410-071, filed 8/20/80. Statutory Authority: RCW 43.21A.080, 70.94.011, 70.94.152, and 70.94.331. 80-04-050 (Order DE 80-8), § 173-410-071, filed 3/21/80.]

WAC 173-410-086 New source review (NSR). The provisions of WAC 173-400-110 shall apply to all new sources and emissions units to which this chapter is applicable.

[Statutory Authority: Chapter 70.94 RCW. 91-05-064 (Order 90-06), § 173-410-086, filed 2/19/91, effective 3/22/91. Statutory Authority: Chapters 43.21A and 70.94 RCW. 83-09-036 (Order DE 83-13), § 173-410-086, filed 4/15/83. Statutory Authority: RCW 70.94.331 and 70.94.395. 80-11-061 (Order DE 80-16), § 173-410-086, filed 8/20/80. Statutory Authority: RCW 43.21A.080, 70.94.011, 70.94.152, and 70.94.331. 80-04-050 (Order DE 80-8), § 173-410-086, filed 3/21/80.]

WAC 173-410-087 Prevention of significant deterioration (PSD). The provisions of WAC 173-400-141 shall apply to all new major sources and major modifications to which this chapter is applicable.

[Statutory Authority: Chapter 70.94 RCW. 91-05-064 (Order 90-06), § 173-410-087, filed 2/19/91, effective 3/22/91. Statutory Authority: Chapters 70.94 and 43.21A RCW. 88-01-057 (Order 87-50), § 173-410-087, filed 12/16/87.]

WAC 173-410-100 Special studies. Ecology may require such additional special studies relevant to process emissions and establish completion dates as it finds necessary.

[Statutory Authority: Chapter 70.94 RCW. 91-05-064 (Order 90-06), § 173-410-100, filed 2/19/91, effective 3/22/91.]

**Chapter 173-415 WAC
PRIMARY ALUMINUM PLANTS**

WAC	
173-415-010	Statement of purpose.
173-415-020	Definitions.
173-415-030	Emission standards.
173-415-040	Standards of performance.
173-415-041	Repealed.
173-415-045	Creditable stack height and dispersion techniques.
173-415-050	New source review (NSR).
173-415-051	Prevention of significant deterioration (PSD).

173-415-060	Monitoring and reporting.
173-415-070	Report of startup, shutdown, breakdown or upset conditions.
173-415-080	Emission inventory.

DISPOSITION OF SECTIONS FORMERLY CODIFIED IN THIS CHAPTER

173-415-041	Emission requirements of prior jurisdictions. [Statutory Authority: RCW 70.94.331. 85-06-048 (Order 84-50), § 173-415-041, filed 3/6/85.] Repealed by 91-05-064 (Order 90-06), filed 2/19/91, effective 3/22/91. Statutory Authority: Chapter 70.94 RCW.
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WAC 173-415-010 Statement of purpose. These rules are enacted under the provisions of the Washington Clean Air Act as amended (RCW 70.94.395) to:

- (1) Assume state jurisdiction over emissions from primary aluminum reduction plants to provide for the systematic control of air pollution in this industry and for the proper development of the state's natural resources; and
- (2) Establish technically feasible and reasonably attainable standards and revise such standards as new information and better technology are developed and become available.

[Statutory Authority: Chapter 70.94 RCW. 91-05-064 (Order 90-06), § 173-415-010, filed 2/19/91, effective 3/22/91. Statutory Authority: RCW 70.94.331 and 70.94.395. 80-11-028 (Order DE 80-17), § 173-415-010, filed 8/14/80. Formerly WAC 18-52-010.]

WAC 173-415-020 Definitions. The definitions of terms contained in chapter 173-400 WAC are incorporated into this chapter by reference. Unless a different meaning is clearly required by context, the following words and phrases as used in this chapter, shall have the following meanings:

- (1) "Fluorides" means compounds of the element fluorine.
- (2) "Forage" means grasses, pasture and other vegetation that is normally consumed or is intended to be consumed by livestock.
- (3) "Primary aluminum plant" or "primary aluminum reduction plant" or "primary aluminum mill" means a plant which produces aluminum metal from aluminum oxide (alumina). For the purposes of this regulation "primary aluminum plant" is equivalent to "source."
- (4) "Potline primary emission control system" means the equipment and procedures designed to collect and remove contaminants from the exhaust gases which are captured at the pot.

[Statutory Authority: Chapter 70.94 RCW. 91-05-064 (Order 90-06), § 173-415-020, filed 2/19/91, effective 3/22/91. Statutory Authority: RCW 70.94.331. 85-06-048 (Order 84-50), § 173-415-020, filed 3/6/85. Statutory Authority: Chapters 43.21A and 70.94 RCW. 83-09-036 (Order DE 83-13), § 173-415-020, filed 4/15/83. Statutory Authority: RCW 70.94.331 and 70.94.395. 80-11-028 (Order DE 80-17), § 173-415-020, filed 8/14/80. Formerly WAC 18-52-021.]

WAC 173-415-030 Emission standards. In addition to the general applicability of chapters 173-400 and 173-490 WAC to all emission sources; all primary aluminum plants are required to meet the emission standards of this chapter. Specific emissions standards listed

in this chapter will take precedence over the general emission standards of chapter 173-400 WAC.

(1) Fluoride.

(a) The emission of gaseous and particulate fluorides for all emissions units within a primary aluminum plant shall be restricted so that the plant's emissions will not cause ambient air and forage standards for fluorides established by chapter 173-481 WAC to be exceeded outside the property controlled by the aluminum plant owner(s) or operator(s).

(b) Each potline primary emission control system shall be designed so that the control of fluoride emissions will be equivalent to a total fluoride collection efficiency of: (i) Eighty percent for vertical stud soderberg and side worked prebake pots, (ii) eighty-five percent for horizontal stud soderberg pots, and (iii) ninety-five percent for center worked prebake pots. A primary emission control system with a design removal efficiency of at least ninety-five percent of the fluoride collected is required.

(2) Particulate. The total emission of particulate matter to the atmosphere from the reduction process (potlines) shall be reduced to the lowest level consistent with reasonably available control technology (RACT) for primary aluminum plants. The emission of solid particulate shall not exceed 7.5 grams per kilogram (fifteen pounds per ton) of aluminum produced on a daily basis.

(3) Visible emissions. Visible emissions from any emissions unit in a primary aluminum plant shall not exceed an average twenty percent opacity for more than six consecutive minutes in any sixty minute period. This provision shall not apply:

(a) When the presence of uncombined water is the only reason for the opacity of the plume to exceed twenty percent; or

(b) When an alternate opacity limit has been established under RCW 70.94.331 (2)(c).

(4) Fugitive emissions. Each primary aluminum plant shall use RACT to prevent fugitive emissions.

(5) Sulfur dioxide.

(a) Total emissions of sulfur dioxide from all emissions units shall not exceed thirty grams of sulfur dioxide per kilogram of aluminum produced on a monthly average (sixty pounds per ton). Those primary aluminum plants which were in excess of the above sulfur dioxide limit on January 1, 1978, will be allowed to emit at the January 1, 1978, level of emissions provided that the owners or operators did demonstrate to ecology by July 1, 1981, by use of modeling and ambient measurements, that the emissions will not cause the ambient standard to be exceeded, and that the limits are placed in a regulatory order(s).

(b) In no case shall any plant cause or permit the emission of a gas containing sulfur dioxide in excess of one thousand parts per million corrected to dry standard conditions for an hourly average.

(6) Operation and maintenance. At all times, including periods of abnormal operation and upset, owners and operators shall, to the extent practicable, maintain an affected facility, and operate and maintain air pollution control equipment associated with such facility in a

manner consistent with good air pollution control practice. A plant may elect to establish a program, subject to the approval of ecology, for monitoring each potroom in order to demonstrate good operation and maintenance.

(7) Source testing. To demonstrate compliance with this chapter, the provisions of WAC 173-400-105 shall apply to all sources to which this chapter is applicable.

[Statutory Authority: Chapter 70.94 RCW. 91-05-064 (Order 90-06), § 173-415-030, filed 2/19/91, effective 3/22/91. Statutory Authority: Chapters 43.21A and 70.94 RCW. 83-09-036 (Order DE 83-13), § 173-415-030, filed 4/15/83. Statutory Authority: RCW 70.94.331 and 70.94.395. 80-11-028 (Order DE 80-17), § 173-415-030, filed 8/14/80. Formerly WAC 18-52-031.]

WAC 173-415-040 Standards of performance. The provisions of WAC 173-400-115 "Standards of performance for new sources" shall apply to all sources to which this chapter is applicable.

[Statutory Authority: Chapter 70.94 RCW. 91-05-064 (Order 90-06), § 173-415-040, filed 2/19/91, effective 3/22/91. Statutory Authority: Chapters 70.94 and 43.21A RCW. 82-16-020 (Order DE 82-21), § 173-415-040, filed 7/27/82. Statutory Authority: RCW 70.94.331 and 70.94.395. 80-11-028 (Order DE 80-17), § 173-415-040, filed 8/14/80. Formerly WAC 18-52-051.]

WAC 173-415-041 Repealed. See Disposition Table at beginning of this chapter.

WAC 173-415-045 Creditable stack height and dispersion techniques. The provisions of WAC 173-400-200 shall apply to all sources to which this chapter is applicable.

[Statutory Authority: Chapter 70.94 RCW. 91-05-064 (Order 90-06), § 173-415-045, filed 2/19/91, effective 3/22/91. Statutory Authority: Chapters 70.94 and 43.21A RCW. 88-01-057 (Order 87-50), § 173-415-045, filed 12/16/87.]

WAC 173-415-050 New source review (NSR). The provisions of WAC 173-400-110 shall apply to all new sources and emissions units to which this chapter is applicable.

[Statutory Authority: Chapter 70.94 RCW. 91-05-064 (Order 90-06), § 173-415-050, filed 2/19/91, effective 3/22/91. Statutory Authority: Chapters 43.21A and 70.94 RCW. 83-09-036 (Order DE 83-13), § 173-415-050, filed 4/15/83. Statutory Authority: RCW 70.94.331 and 70.94.395. 80-11-028 (Order DE 80-17), § 173-415-050, filed 8/14/80. Formerly WAC 18-52-056.]

WAC 173-415-051 Prevention of significant deterioration (PSD). The provisions of WAC 173-400-141 shall apply to all new major sources and major modifications to which this chapter is applicable.

[Statutory Authority: Chapter 70.94 RCW. 91-05-064 (Order 90-06), § 173-415-051, filed 2/19/91, effective 3/22/91. Statutory Authority: Chapters 70.94 and 43.21A RCW. 88-01-057 (Order 87-50), § 173-415-051, filed 12/16/87.]

WAC 173-415-060 Monitoring and reporting. (1) Each primary aluminum plant shall conduct routine monitoring of emissions, ambient air, and forage in accordance with a program that has been approved by ecology. Results of monitoring shall be reported within thirty days of the end of each calendar month and shall include data as follows:

(a) Ambient air: Twenty-four hour concentrations of gaseous fluoride in the ambient air expressed in micrograms of hydrogen fluoride per cubic meter of ambient air.

(b) Forage: Concentrations of fluoride in forage expressed in parts per million of fluoride on a dried weight basis.

(c) Particulate emissions: Results of all emission sampling conducted during the month for particulates, expressed in grains per standard dry cubic foot, in pounds per day, and in pounds per ton of aluminum produced. The method of calculating pounds per ton shall be as specified in the approved monitoring programs. Particulate data shall be reported as total particulates and percentage of fluoride ion contained therein.

Compliance with WAC 173-415-030(2) shall be determined by measurements of emissions from the potline primary control system plus measurements of emissions from the roof monitor.

(d) Fluoride emissions: Results of all sampling conducted during the month for fluoride emissions. All results shall be expressed as hydrogen fluoride in parts per million on a volume basis and pounds per day of hydrogen fluoride.

(e) Other emission and ambient air data as specified in the approved monitoring program.

(2) Other data: For ecology to evaluate a plant's emissions or emission control program, each primary aluminum plant shall furnish other data requested by ecology.

(3) Change in raw materials or fuel: Any change or series of changes in raw material or fuel which results in a cumulative increase in emissions of sulfur dioxide of five hundred tons per year or more over that stated in the 1979 inventory required by WAC 173-415-080 shall require the submittal of sufficient information to ecology so that the effect upon ambient concentrations of sulfur dioxide can be determined. Ecology may issue regulatory orders requiring controls to reduce the effect of such increases.

[Statutory Authority: Chapter 70.94 RCW. 91-05-064 (Order 90-06), § 173-415-060, filed 2/19/91, effective 3/22/91. Statutory Authority: RCW 70.94.331 and 70.94.395. 80-11-028 (Order DE 80-17), § 173-415-060, filed 8/14/80. Formerly WAC 18-52-061 and 18-52-071.]

WAC 173-415-070 Report of startup, shutdown, breakdown or upset conditions. The provisions of WAC 173-400-105(5) shall apply to all sources to which this chapter is applicable.

[Statutory Authority: Chapter 70.94 RCW. 91-05-064 (Order 90-06), § 173-415-070, filed 2/19/91, effective 3/22/91. Statutory Authority: Chapters 43.21A and 70.94 RCW. 83-09-036 (Order DE 83-13), § 173-415-070, filed 4/15/83. Statutory Authority: RCW 70.94.331 and 70.94.395. 80-11-028 (Order DE 80-17), § 173-415-070, filed 8/14/80. Formerly WAC 18-52-077.]

WAC 173-415-080 Emission inventory. The provisions of WAC 173-400-105(1) shall apply to all sources to which this chapter is applicable.

[Statutory Authority: Chapter 70.94 RCW. 91-05-064 (Order 90-06), § 173-415-080, filed 2/19/91, effective 3/22/91. Statutory Authority: Chapters 43.21A and 70.94 RCW. 89-02-055 (Order 88-39),

§ 173-415-080, filed 1/3/89; 83-09-036 (Order DE 83-13), § 173-415-080, filed 4/15/83. Statutory Authority: RCW 70.94.331 and 70.94.395. 80-11-028 (Order DE 80-17), § 173-415-080, filed 8/14/80. Formerly WAC 18-52-086.]

Chapter 173-433 WAC SOLID FUEL BURNING DEVICES

WAC

173-433-030	Definitions.
173-433-100	Emission performance standards.
173-433-110	Opacity standards.
173-433-120	Prohibited fuel types.
173-433-130	General emission standards.
173-433-140	Impaired air quality criteria.
173-433-150	Curtailement.
173-433-170	Retail sales fee.

WAC 173-433-030 Definitions. The definitions of terms contained in chapter 173-400 WAC are incorporated by reference. Unless a different meaning is clearly required by context, the following words and phrases as used in this chapter, shall have the following meanings:

(1) "Adequate source of heat" means the ability to maintain seventy degrees Fahrenheit at a point three feet above the floor in all normally inhabited areas of a dwelling.

(2) "Certified" means that a woodstove meets emission performance standards when tested by an accredited independent laboratory and labeled according to procedures specified by the EPA in "40 CFR 60 Subpart AAA - Standards of Performance for Residential Wood Heaters" as amended through July 1, 1990.

(3) "Coal-only heater" means an enclosed, coal burning appliance capable of and intended for residential space heating, domestic water heating, or indoor cooking, which has all of the following characteristics:

(a) An opening for emptying ash which is located near the bottom or the side of the appliance;

(b) A system which admits air primarily up and through the fuel bed;

(c) A grate or other similar device for shaking or disturbing the fuel bed or power driven mechanical stoker; and

(d) The model is listed by a nationally recognized safety testing laboratory for use of coal only, except for coal ignition purposes.

(4) "EPA" means United States Environmental Protection Agency.

(5) "New woodstove" means a woodstove that has not been sold at retail, bargained, exchanged, or given away for the first time by the manufacturer, the manufacturer's dealer or agency, or a retailer, and has not been so used as to become what is commonly known as "second hand" within the ordinary meaning of that term.

(6) "Nonaffected pellet stove" means that a pellet stove has an air-to-fuel ratio equal to or greater than 35.0 when tested by an accredited laboratory in accordance with methods and procedures specified by the EPA in "40 CFR 60 Appendix A, REFERENCE METHOD 28A - MEASUREMENT OF AIR TO FUEL RATIO AND MINIMUM ACHIEVABLE BURN RATES FOR WOOD-FIRED APPLIANCES" as amended through July 1, 1990.

(7) "Retailer" means any person engaged in the sale of solid fuel burning devices directly to the public. A contractor who sells dwellings with solid fuel burning devices installed or a mail order outlet which sells solid fuel burning devices directly to the public is considered to be a solid fuel burning device retailer.

(8) "Seasoned wood" means wood of any species that has been sufficiently dried so as to contain twenty percent or less moisture by weight.

(9) "Solid fuel burning device" (same as solid fuel heating device) means a device that burns wood, coal, or any other nongaseous or nonliquid fuels, and includes any device burning any solid fuel except those prohibited by WAC 173-433-120. This also includes devices used for aesthetic or space-heating purposes in a private residence or commercial establishment, which has a heat input less than one million British thermal units per hour.

(10) "Treated wood" means wood of any species that has been chemically impregnated, painted, or similarly modified to prevent weathering and deterioration.

(11) "Woodstove" (same as "wood heater") means an enclosed solid fuel burning device capable of and intended for residential space heating and domestic water heating that meets the following criteria contained in "40 CFR 60 Subpart AAA - Standards of Performance for Residential Wood Heaters" as amended through July 1, 1990:

(a) An air-to-fuel ratio in the combustion chamber averaging less than 35.0, as determined by EPA Reference Method 28A;

(b) A useable firebox volume of less than twenty cubic feet;

(c) A minimum burn rate less than 5 kg/hr as determined by EPA Reference Method 28;

(d) A maximum weight of 800 kg, excluding fixtures and devices that are normally sold separately, such as flue pipe, chimney, and masonry components not integral to the appliance.

Any combination of parts, typically consisting of but not limited to: Doors, legs, flue pipe collars, brackets, bolts and other hardware, when manufactured for the purpose of being assembled, with or without additional owner supplied parts, into a woodstove, is considered a woodstove.

[Statutory Authority: Chapter 70.94 RCW. 91-07-066 (Order 90-58), § 173-433-030, filed 3/20/91, effective 4/20/91. Statutory Authority: RCW 70.94.331. 90-19-062 (Order 90-10), § 173-433-030, filed 9/17/90, effective 10/18/90. Statutory Authority: Chapters 70.94 and 43.21A RCW. 89-02-054 (Order 88-38), § 173-433-030, filed 1/3/89; 88-01-056 (Order 87-44), § 173-433-030, filed 12/16/87.]

WAC 173-433-100 Emission performance standards. Woodstove sales. A person shall not advertise to sell, offer to sell, sell, bargain, exchange, or give away a new woodstove in Washington unless it has been tested to determine its emission performance and heating efficiency and certified and labeled in accordance with procedures and criteria specified in "40 CFR 60 Subpart AAA - Standards of Performance for Residential Wood Heaters" as amended through July 1, 1990.

[Statutory Authority: Chapter 70.94 RCW. 91-07-066 (Order 90-58), § 173-433-100, filed 3/20/91, effective 4/20/91. Statutory Authority: RCW 70.94.331. 90-19-062 (Order 90-10), § 173-433-100, filed 9/17/90, effective 10/18/90. Statutory Authority: Chapters 70.94 and 43.21A RCW. 89-02-054 (Order 88-38), § 173-433-100, filed 1/3/89; 88-01-056 (Order 87-44), § 173-433-100, filed 12/16/87.]

WAC 173-433-110 Opacity standards. (1) A person shall not cause or allow emission of a smoke plume from any solid fuel burning device to exceed an average of twenty percent opacity for six consecutive minutes in any one-hour period.

(2) State-wide opacity standard. An authority shall not adopt or enforce an opacity level for solid fuel burning devices that is more stringent than the state-wide standard.

(3) Test method and procedures. Methods and procedures specified by the EPA in "40 CFR 60 Appendix A reference method 9 - VISUAL DETERMINATION OF THE OPACITY OF EMISSIONS FROM STATIONARY SOURCES" as amended through July 1, 1990, shall be used to determine compliance with subsection (1) of this section.

(4) Enforcement. Smoke visible from a chimney, flue or exhaust duct in excess of the opacity standard shall constitute prima facie evidence of unlawful operation of an applicable solid fuel burning device. This presumption may be refuted by demonstration that the smoke was not caused by an applicable solid fuel burning device. The provisions of this requirement shall:

(a) Be enforceable on a complaint basis.

(b) Not apply during the starting of a new fire for a period not to exceed twenty minutes in any four-hour period.

[Statutory Authority: Chapter 70.94 RCW. 91-07-066 (Order 90-58), § 173-433-110, filed 3/20/91, effective 4/20/91. Statutory Authority: RCW 70.94.331. 90-19-062 (Order 90-10), § 173-433-110, filed 9/17/90, effective 10/18/90. Statutory Authority: Chapters 70.94 and 43.21A RCW. 88-01-056 (Order 87-44), § 173-433-110, filed 12/16/87.]

WAC 173-433-120 Prohibited fuel types. A person shall not cause or allow any of the following materials to be burned in a solid fuel burning device:

- (1) Garbage;
- (2) Treated wood;
- (3) Plastic and plastic products;
- (4) Rubber products;
- (5) Animal carcasses;
- (6) Asphaltic products;
- (7) Waste petroleum products;
- (8) Paints and chemicals; or
- (9) Any substance which normally emits dense smoke or obnoxious odors other than paper to start the fire, properly seasoned fuel wood, or coal with sulfur content less than 1.0% by weight burned in a coal-only heater.

[Statutory Authority: Chapter 70.94 RCW. 91-07-066 (Order 90-58), § 173-433-120, filed 3/20/91, effective 4/20/91. Statutory Authority: RCW 70.94.331. 90-19-062 (Order 90-10), § 173-433-120, filed 9/17/90, effective 10/18/90. Statutory Authority: Chapters 70.94 and 43.21A RCW. 89-02-054 (Order 88-38), § 173-433-120, filed 1/3/89; 88-01-056 (Order 87-44), § 173-433-120, filed 12/16/87.]

WAC 173-433-130 General emission standards. In addition to the general applicability of chapter 173-400 WAC to all emission sources;

(1) Emissions detrimental to persons or property. No person shall cause or permit the emission of any air contaminant from an identifiable solid fuel burning device, including any air contaminant whose emission is not otherwise prohibited by this chapter, if the air contaminant emission causes detriment to the health, safety, or welfare of a person, plant or animal, or causes damage to property or business.

(2) Odors. Any person who shall cause or allow the generation of any odor from any solid fuel burning device which may interfere with any other property owner's use or enjoyment of his property must use recognized good practice and procedures to reduce these odors to a reasonable minimum.

[Statutory Authority: Chapter 70.94 RCW. 91-07-066 (Order 90-58), § 173-433-130, filed 3/20/91, effective 4/20/91. Statutory Authority: RCW 70.94.331. 90-19-062 (Order 90-10), § 173-433-130, filed 9/17/90, effective 10/18/90. Statutory Authority: Chapters 70.94 and 43.21A RCW. 89-02-054 (Order 88-38), § 173-433-130, filed 1/3/89.]

WAC 173-433-140 Impaired air quality criteria. Impaired air quality shall be determined by ecology or an authority in accordance with the following criteria:

(1) "First stage impaired air quality" – the first stage indicates the presence of:

(a) Particulate matter ten microns and smaller in diameter (PM_{10}) at or above an ambient level of seventy-five micrograms per cubic meter; or

(b) Carbon monoxide at or above an ambient level of eight parts of contaminant per million parts of air by volume (ppm).

(2) "Second stage impaired air quality" – the second stage indicates the presence of particulate matter ten microns and smaller in diameter (PM_{10}) at or above an ambient level of one hundred five micrograms per cubic meter.

(3) On or after July 1, 1995, if an authority has geographically limited the use of solid fuel burning devices as specified under WAC 173-433-150(6), a single stage of impaired air quality will apply within the geographical area defined by the authority. A single stage of impaired air quality indicates the presence of:

(a) Particulate matter ten microns and smaller in diameter (PM_{10}) at or above an ambient level of ninety micrograms per cubic meter; or

(b) Carbon monoxide at or above an ambient level of eight parts of contaminant ppm.

(4) Acceptable ambient air quality measurement methods.

(a) Particulate matter ten microns and smaller in diameter (PM_{10}).

(i) Procedures specified by the EPA in "40 CFR 50, APPENDIX J – REFERENCE METHOD FOR THE DETERMINATION OF PARTICULATE MATTER AS PM_{10} IN THE ATMOSPHERE" as amended through July 1, 1990, shall be used to gather reference ambient PM_{10} data on a twenty-four-hour average.

(ii) More timely ambient PM_{10} measurement methods may be utilized to evaluate air quality impairment if accepted and approved by ecology. Any alternative method for evaluating air quality impairment for the purpose of curtailing solid fuel burning device use must be done at the same location and in parallel to the reference method, and must be related to the reference method by a mathematical relationship with a correlation coefficient of no less than 0.85.

(b) Carbon monoxide (CO) must be measured on an eight-hour average in accordance with procedures specified by the EPA in "40 CFR 50, APPENDIX C – REFERENCE METHOD FOR THE DETERMINATION OF CARBON MONOXIDE IN THE ATMOSPHERE (NON-DISPERSIVE INFRARED PHOTOMETRY)" as amended through July 1, 1990.

(c) All monitors used to measure PM_{10} for evaluation of air quality impairment due to solid fuel burning device use must be sited in accordance with EPA siting criteria in or near affected residential areas.

[Statutory Authority: Chapter 70.94 RCW. 91-07-066 (Order 90-58), § 173-433-140, filed 3/20/91, effective 4/20/91.]

WAC 173-433-150 Curtailment. (1) Whenever ecology or an authority has declared the first stage of impaired air quality for a geographical area a person in a residence or commercial establishment within that geographical area with an adequate source of heat other than a solid fuel burning device shall not operate any solid fuel burning device, unless the solid fuel burning device is one of the following:

(a) A nonaffected pellet stove; or

(b) A woodstove certified and labeled by the EPA under "40 CFR 60 Subpart AAA – Standards of Performance for Residential Wood Heaters" as amended through July 1, 1990; or

(c) A woodstove meeting the "Oregon Department of Environmental Quality Phase 2" emissions standards contained in Subsections (2) and (3) of Section 340-21-115, and certified in accordance with "Oregon Administrative Rules, Chapter 340, Division 21 – Woodstove Certification" dated November 1984.

(2) Whenever ecology or an authority has declared the second stage of impaired air quality for a geographical area a person in a residence or commercial establishment within that geographical area with an adequate source of heat other than a solid fuel burning device shall not operate any solid fuel burning device.

(3) Whenever ecology has declared an air pollution episode at a level above forecast a person in a residence or commercial establishment within that geographical area with an adequate source of heat other than a solid fuel burning device shall not operate any solid fuel burning device.

(4) The following matrix graphically illustrates the applicability of different types of solid fuel burning devices to the provisions of subsections (1) through (3) of this section:

Burn Condition Type of Device	Impaired Air Quality		Episode	
	First Stage	Second Stage	Forecast	Alert, Warning, or Emergency
Pellet Stove (non-affected)	OK	NO	OK	NO
EPA Certified Woodstove	OK	NO	OK	NO
DEQ Phase 2 Woodstove	OK	NO	OK	NO
EPA Exempted Device	NO	NO	OK	NO
All Other Devices	NO	NO	OK	NO

NOTES: "OK" indicates that the device may be operated
"NO" indicates that the device may not be operated

(5) On or after July 1, 1995, an authority may prohibit use of solid fuel burning devices within specific geographical areas:

(a) The following factors shall be considered in the exercise of this limitation:

(i) The contribution of solid fuel devices that do not meet the standards set forth in "40 CFR 60 Subpart AAA – Standards of Performance for Residential Wood Heaters" as amended through July 1, 1990, to nonattainment of national ambient air quality standards;

(ii) The population density of the applicable geographical area; and

(iii) The public health effects of the use of solid fuel devices which do not meet the standards set forth in "40 CFR 60 Subpart AAA – Standards of Performance for Residential Wood Heaters" as amended through July 1, 1990.

(b) The following solid fuel devices are exempted from this limitation:

(i) Fireplaces;

(ii) Woodstoves certified and labeled by the EPA under "40 CFR 60 Subpart AAA – Standards of Performance for Residential Wood Heaters" as amended through July 1, 1990; or

(iii) Nonaffected pellet stoves.

(c) An authority shall allow an exemption from this subsection for low-income persons who reside in the geographical area affected by this subsection.

(6) On or after July 1, 1995, whenever an authority has declared impaired air quality in accordance with criteria contained in WAC 173-433-140(3) for a geographical area defined under subsection (5) of this section, a person in a residence or commercial establishment within that geographical area shall not operate any solid fuel burning device.

(7) A person responsible for an applicable solid fuel burning device already in operation at the time an episode is declared shall withhold new solid fuel for the duration of the episode. A person responsible for an applicable solid fuel burning device already in operation at the time impaired air quality is declared shall withhold new solid fuel for the duration of the impaired air quality. Smoke visible from a chimney, flue or exhaust duct after three hours has elapsed from the declaration of the episode or impaired air quality shall constitute prima facie evidence of unlawful operation of an applicable solid fuel burning device. This presumption may be

refuted by demonstration that the smoke was not caused by a solid fuel burning device.

(8) Ecology, authorities, health departments, fire departments, or local police forces having jurisdiction in the area may enforce compliance with the above solid fuel burning device curtailment rules after three hours has elapsed from the declaration of the episode or impaired air quality.

[Statutory Authority: Chapter 70.94 RCW. 91-07-066 (Order 90-58), § 173-433-150, filed 3/20/91, effective 4/20/91. Statutory Authority: RCW 70.94.331. 90-19-062 (Order 90-10), § 173-433-150, filed 9/17/90, effective 10/18/90. Statutory Authority: Chapters 70.94 and 43.21A RCW. 88-01-056 (Order 87-44), § 173-433-150, filed 12/16/87.]

WAC 173-433-170 Retail sales fee. (1) A person selling a solid fuel burning device at retail shall collect a fee from the buyer, pursuant to RCW 70.94.483.

(2) The fee shall be:

(a) Set at a minimum of fifteen dollars, until January 1, 1991. Thereafter, ecology may annually increase the fee according to changes in the consumer price index;

(b) Applicable to all new and used solid fuel burning devices, with the exception of built-in masonry fireplaces;

(c) Collected by the retailer at the time of sale and remitted to the department of revenue in conjunction with the retail sales tax under chapter 82.08 RCW.

(3) If the retailer fails to collect and remit the fee to the department of revenue as prescribed in chapter 82.08 RCW, the retailer shall be personally liable to the state for the amount of the fee, with subsequent actions taken in accordance with the collection provisions of chapter 82.32 RCW.

(4) Beginning July 1, 1990, and each calendar quarter thereafter, the funds collected under RCW 70.94.483 shall be used solely for the purposes of public education and enforcement of the solid fuel burning device program. The department shall distribute the funds from the woodstove education and enforcement account as follows:

(a) Sixty-six percent of the funds shall be distributed to those local air authorities with enforcement programs, based upon the fraction of the total state population residing in the counties within their respective jurisdictions. Population figures used to establish this fraction shall be determined by the office of financial management. Where an activated local air authority does not exist or does not implement an enforcement program, or elects not to receive the funds, ecology shall retain the funds that would otherwise be distributed under this subsection; and

(b) Thirty-four percent of the funds shall be distributed to ecology for the purposes of enforcement and educating the public about:

(i) The effects of solid fuel burning device emissions upon health and air quality; and

(ii) Methods of achieving better efficiency and emission performance from solid fuel burning devices.

[Statutory Authority: Chapter 70.94 RCW. 91-07-066 (Order 90-58), § 173-433-170, filed 3/20/91, effective 4/20/91. Statutory Authority: Chapters 70.94 and 43.21A RCW. 89-02-054 (Order 88-38), § 173-433-170, filed 1/3/89.]

Chapter 173-460 WAC

CONTROLS FOR NEW SOURCES OF TOXIC AIR POLLUTANTS

WAC

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WAC 173-460-010 Purpose. (1) Pursuant to chapter 70.94 RCW, Washington Clean Air Act, the purpose of this chapter is to establish the systematic control of new sources emitting toxic air pollutants (TAPs) in order to prevent air pollution, reduce emissions to the extent reasonably possible, and maintain such levels of air quality as will protect human health and safety. Toxic air pollutants include carcinogens and noncarcinogens listed in WAC 173-460-150 and 173-460-160.

(2) This chapter establishes three major requirements:

- (a) Best available control technology for toxics;
- (b) Toxic air pollutant emission quantification;
- (c) Human health and safety protection demonstration.

(3) Policy. It is the policy of ecology to reduce, avoid, or eliminate toxic air pollutants prior to their generation whenever economically and technically practicable.

[Statutory Authority: RCW 70.94.331. 91-13-079 (Order 90-62), § 173-460-010, filed 6/18/91, effective 9/18/91.]

WAC 173-460-020 Definitions. The definitions of terms contained in chapter 173-400 WAC are incorporated into this chapter by reference. In the event of a conflict between the definitions provided in chapter 173-400 WAC and the definitions provided in this section, the definitions in this section shall govern. Unless a different meaning is clearly required by context, the following words and phrases as used in this chapter shall have the following meanings. Note: For copies of the above mentioned rule and any other rule cited in this chapter, contact the Department of Ecology, Records Section, Mailstop PV-11, Olympia, WA 98504-8711.

(1) "Acceptable source impact analysis" means a procedure for demonstrating compliance with WAC 173-

460-070 and 173-460-080, that compares maximum incremental ambient air impacts with applicable acceptable source impact levels (ASIL).

(2) "Acceptable source impact level (ASIL)" means a concentration of a toxic air pollutant in the outdoor atmosphere in any area which does not have restricted or controlled public access that is used to evaluate the air quality impacts of a single source. There are three types of acceptable source impact levels: Risk-based, threshold-based, and special. Concentrations for these three types of ASILs are determined as provided in WAC 173-460-110. ASILs are listed in WAC 173-460-150 and 173-460-160.

(3) "Authority" means an air pollution control authority activated pursuant to chapter 70.94 RCW that has jurisdiction over the subject source. Ecology is the authority if an air pollution control authority has not been activated or if ecology has jurisdiction over the source pursuant to RCW 70.94.395.

(4) "Best available control technology for toxics (T-BACT)" applies to each toxic air pollutant (TAP) discharged or mixture of TAPs, taking in account the potency quantity and toxicity of each toxic air pollutant or mixture of TAPs discharged in addition to the meaning given in WAC 173-400-030(10).

(5) "Carcinogenic potency factor" means the upper 95th percentile confidence limit of the slope of the dose-response curve and is expressed in units of (mg/kg-day)⁻¹.

(6) "Class A toxic air pollutant (Class A TAP)" means a substance or group of substances listed in WAC 173-460-150.

(7) "Class B toxic air pollutant (Class B TAP)" means any substance that is not a simple asphyxiant or nuisance particulate and that is listed in WAC 173-460-160.

(8) "EPA's Dispersion Modeling Guidelines" means the United States Environmental Protection Agency Guideline on Air Quality Models, EPA 450/2-78-0277R and is hereby incorporated by reference.

(9) "EPA's Risk Assessment Guidelines" means the United States Environmental Protection Agency's Guidelines for Carcinogenic Risk Assessment, 51 FR 33992 (September 24, 1986) and is hereby incorporated by reference.

(10) "Increased cancer risk of one in one hundred thousand" means the 95th percent upper bound on the estimated risk of one additional cancer above the background cancer rate per one hundred thousand individuals continuously exposed to a Class A toxic air pollutant at a given average dose for a specified time.

(11) "Increased cancer risk of one in one million" means the 95th percent upper bound on the estimated risk of one additional cancer above the background cancer rate per one million individuals continually exposed to a Class A toxic air pollutant at a given average dose for a specified time.

(12) "Inhalation Reference Dose (Inhalation RfD)" means a reference dose published in the United States Environmental Protection Agency Integrated Risk Information System (IRIS).

(13) "Mixture" means a combination of two or more substances mixed in arbitrary proportions.

(14) "New toxic air pollutant source" means a source or emissions unit which may emit toxic air pollutants and which commenced construction after the effective date of this chapter. Addition to, enlargement, modification, replacement, or any alteration of any process or air pollutant source which may increase emissions or ambient air concentrations of any regulated air pollutant, including toxic air pollutants, shall be construed as construction or installation or establishment of a new toxic source.

(15) "Reasonably available control technology for toxics (T-RACT)" applies to each toxic air pollutant (TAP) discharged or mixture of TAPs, taking into account the potency, quantity, and toxicity of each toxic air pollutant or mixture of TAPs discharged in addition to the meaning given in WAC 173-400-030(59).

(16) "Second Tier Analysis" means an optional procedure used after T-BACT and acceptable source impact analysis for demonstrating compliance with WAC 173-460-070. The second tier analysis uses a health impact assessment as provided in WAC 173-460-090, instead of an acceptable source impact level.

(17) "Simple asphyxiant" means a physiologically inert gas or vapor that acts primarily by diluting atmospheric oxygen below the level required to maintain proper levels of oxygen in the blood. Examples of simple asphyxiants are given in Appendix X of the TLV Booklet referred to in subsection (19) of this section and incorporated by reference.

(18) "Threshold limit value-time weighted average (TLV-TWA)" means a concentration limit recommended by the American Conference of Governmental Industrial Hygienists (ACGIH) for a normal eight-hour workday and forty-hour workweek.

(19) "TLV Booklet" means "TLVs, Threshold Limit Values and Biological Exposure Indices for 1987-88," published by the American Conference of Governmental Industrial Hygienists and is hereby incorporated by reference.

(20) "Toxic air pollutant (TAP)" means any Class A or Class B toxic air pollutant listed in WAC 173-460-150 and 173-460-160. The term toxic air pollutant may include particulate matter and volatile organic compounds if an individual substance or a group of substances within either of these classes is listed in WAC 173-460-150 and 173-460-160. The term toxic air pollutant does not include particulate matter and volatile organic compounds as generic classes of compounds.

(21) "Upper bound unit risk factor" means the 95 percent upper confidence limit of an estimate of the extra risk of cancer associated with a continuous 70 year exposure to 1 ug/m3 of a Class A toxic air pollutant.

[Statutory Authority: RCW 70.94.331. 91-13-079 (Order 90-62), § 173-460-020, filed 6/18/91, effective 9/18/91.]

WAC 173-460-030 Requirements, applicability and exemptions. (1) Applicability.

(a) The provisions of this chapter shall apply statewide. The authority shall enforce WAC 173-460-010,

173-460-020, 173-460-030, 173-460-040, 173-460-050, 173-460-060, 173-460-070, 173-460-080, 173-460-130, 173-460-140, 173-460-150, and 173-460-160.

(b) Except as provided in this chapter, any new toxic air pollutant source listed in (b)(i), (ii), or (iii) of this subsection that may emit a Class A or Class B TAP into the ambient air is subject to these regulations:

(i) Standard industrial classifications:

(A) Major group 10-Metal mining.

(B) Major group 12-Bituminous coal and lignite mining.

(C) Major group 13-Oil and gas extraction.

(D) Manufacturing industries major groups 20-39.

(E) Major group 49-Electric, gas, and sanitary services except 4971 irrigation systems.

(F) Dry cleaning plants, 7216.

(G) General medical surgical hospitals, 8062.

(H) Specialty hospitals, 8069.

(I) National security, 9711.

(ii) Any source or source category listed in WAC 173-400-100, 173-400-115(2), or 173-490-030(1) except WAC 173-490-030 (1)(e) gasoline dispensing facilities.

(iii) Any of the following sources:

(A) Landfills.

(B) Sites subject to chapter 173-340 WAC Model Toxics Control Act—Cleanup regulation.

(2) Exempt sources.

(a) Containers such as tanks, barrels, drums, cans, and buckets are exempt from the requirements of this chapter unless equipped with a vent other than those required solely as safety pressure release devices.

(b) Nonprocess fugitive emissions of toxic air pollutants from stationary sources, such as construction sites, unpaved roads, coal piles, waste piles, and fuel and ash handling operations are exempt from WAC 173-460-060.

(c) The following sources are generally exempt from the requirements of WAC 173-460-050, 173-460-070, 173-460-080, and 173-460-090. However, the authority may on a case-by-case basis, require compliance with these sections if the authority determines that the amount of emissions, nature of pollutant, or source location indicate that the ambient impact should be evaluated.

(i) Perchloroethylene dry cleaners

(ii) Petroleum solvent dry cleaning systems

(iii) Solvent metal cleaners

(iv) Spray coating operations

(v) Abrasive blasting

(d) Demolition and renovation projects involving asbestos removal and disposal are exempt from the requirements of this chapter.

(e) Process vents subject to 40 C.F.R. Parts 264 and 265, Subpart AA are exempt from the requirements of this chapter.

[Statutory Authority: RCW 70.94.331. 91-13-079 (Order 90-62), § 173-460-030, filed 6/18/91, effective 9/18/91.]

WAC 173-460-040 New source review. (1) Applicability. This chapter supplements the new source review requirements of WAC 173-400-110 by adding additional new source review requirements for toxic air pollutant sources. If a notice of construction is required under both chapter 173-400 WAC and this chapter, the written applications shall be combined. A notice of construction is a written application to permit construction of a new source.

(a) The owner or operator of a new toxic air pollutant source listed in WAC 173-460-030(2) shall notify the authority prior to the construction, installation, or establishment of a new toxic air pollutant source and shall file a notice of construction application with the authority for the proposed emission unit(s). Notification and notice of construction are not required if the source is an exempt source listed in WAC 173-460-030(3) or subsection (2) of this section.

(b) The notice of construction and new source review applies only to the affected emission unit(s) and the contaminants emitted from the emission unit(s).

(c) New source review of a modification is limited to the emission unit or units proposed to be modified and the emission unit or units whose emissions of TAPs may increase as a result of the modification.

(2) The owner or operator of a new toxic air pollutant source listed in WAC 173-460-030(2) is not required to notify or file a notice of construction with the authority if any of the following conditions are met:

(a) Routine maintenance or repair requires equivalent replacement of air pollution control equipment; or

(b) The new source is a minor process change(s) that does not increase capacity and total toxic air pollutant emissions do not exceed the emission rates specified in small quantity emission rate tables in WAC 173-460-080; or

(c) The new source is the result of minor changes in raw material composition and the total toxic air pollutant emissions do not exceed the emission rates specified in the small quantity emission rate tables in WAC 173-460-080.

(3) Additional information. Within thirty days of receipt of a notice of construction, the authority may require the submission of additional plans, specifications, and other information necessary for the review of the proposed new or modified source.

(4) Requirements for new toxic air pollutant sources. The authority shall review notice(s) of construction, plans, specifications, and other associated information to determine that:

(a) The source will be in accord with applicable federal, state, and authority air pollution control rules and regulations;

(b) The source will use T-BACT for emissions control for the toxic air pollutants which are likely to increase;

(c) The source will use T-RACT for emissions control for the toxic air pollutants which are likely to remain the same or decrease; and

(d) Sources required to use T-BACT for emission control demonstrate compliance with WAC 173-460-070 by using the procedures established in WAC 173-

460-080 or, failing that, demonstrates compliance, by using the additional procedures in WAC 173-460-090 and/or 173-460-100.

(4) Preliminary determination. Within thirty days after receipt of all information required, the authority shall:

(a) Make preliminary determinations on the matters set forth in this section; and

(b) Initiate compliance with the provisions of WAC 173-400-171 relating to public notice and public comment, as applicable.

(5) Final determination. If, after review of all information received including public comment, the authority finds that all the conditions in this section are satisfied, the authority shall issue a regulatory order to approve the notice of construction for the proposed new source or modification. If the authority finds that the conditions in this section are not satisfied, the authority shall issue an order for the prevention of construction, installation, or establishment of the toxic air pollution source(s). Where ecology has jurisdiction, it will endeavor to make final determinations as promptly as possible.

(6) Appeal of decision. A final notice of construction decision may be appealed to the pollution control hearings board pursuant to chapter 43.21B RCW.

(7) Commencement of construction. The owner(s) or operator(s) of the new source shall not commence construction until the applicable notice of construction has been approved.

(8) Operation and maintenance plan. As a condition of notice of construction approval; prior to start up, the authority may require a plan for the operation and maintenance of all equipment and procedures to assure continuous compliance with this chapter.

(a) A copy of the plan shall be filed with the authority upon request.

(b) The plan shall reflect good industrial practice and may include operating parameters and maintenance procedures, and shall be updated to reflect any changes in good industrial practice.

(c) Submittal of all plans should coincide with the authorities reporting requirements where applicable.

(9) Jurisdiction. Emission of toxic air pollutants that exceed the acceptable source impact levels listed in WAC 173-460-150 and 173-460-160 requires ecology and, if applicable, authority approval as specified in WAC 173-460-090 and 173-460-100.

[Statutory Authority: RCW 70.94.331, 91-13-079 (Order 90-62), § 173-460-040, filed 6/18/91, effective 9/18/91.]

WAC 173-460-050 Requirement to quantify emissions. (1) New sources.

(a) When applying for a notice of construction, an owner or operator of a new toxic air pollution source shall quantify those emissions of each TAP or combination of TAPs that:

(i) Will be used for the modeling procedures in WAC 173-460-080; and

(ii) That may be discharged after applying required control technology. The information shall be submitted to the authority.

(b) Emissions shall be quantified in sufficient detail to determine whether the source complies with the requirements of this chapter.

(2) Small quantity sources.

Sources that choose to use small quantity emission rate tables instead of using dispersion modeling shall quantify emissions as required under WAC 173-460-080, in sufficient detail to demonstrate to the satisfaction of the authority that the emissions are less than the applicable emission rates listed in WAC 173-460-080.

(3) Level of detail.

An acceptable source impact level analysis under WAC 173-460-080, may be based on a conservative estimate of emissions that represents good engineering judgment. If compliance with WAC 173-460-070 and 173-460-080 cannot be demonstrated, more precise emission estimates shall be used prior to WAC 173-460-090.

(4) Mixtures of toxic air pollutants.

(a) An owner or operator of a source that may discharge more than one toxic air pollutant may demonstrate compliance with WAC 173-460-070 and 173-460-080 by:

(i) Quantifying emissions and performing modeling for each TAP individually; or

(ii) Calculate the sum of all TAP emissions and perform modeling for the total TAP emissions and compare maximum ambient levels to the smallest ASIL; or

(iii) Equivalent procedures may be used if approved by ecology.

(b) Dioxin and furan emissions shall be considered together as one TAP and expressed as an equivalent emission of 2,3,7,8 TCDD based on the relative potency of the isomers in accordance with United States Environmental Protection Agency (EPA) guidelines.

Note: Copies of EPA "Interim procedures for estimating risks associated with exposures to mixtures of chlorinated dibenzo-p-dioxins and dibenzofurans (CDDs and CDFs). 1989 Update" are available by requesting EPA /625/3-89/016, March 1989 from ORD Publications (513) 684-7562.

(c) Polyaromatic hydrocarbon (PAH) emissions. The owner or operator of a source that may emit a mixture of polyaromatic hydrocarbon emissions shall quantify the following PAHs and shall consider them together as one TAP equivalent in potency to benzo(a)pyrene: benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, indeno(1,2,3-cd)pyrene, benzo(a)pyrene. The acceptable source impact analysis shall be conducted using the polyaromatic hydrocarbon emission ASIL contained in WAC 173-460-150(3).

(d) Uncontrolled roof vent emissions from primary aluminum smelters. The owner or operator of a primary aluminum smelter that may emit a mixture of polyaromatic hydrocarbons from uncontrolled roof vents shall quantify PAH emissions using either of the following methods:

(i) Quantify PAH emissions using the procedures in (c) of this subsection; or

(ii) Multiply the total particulate emission mass from the uncontrolled roof vents by the percent of the particulate that is extractable organic matter. The percent extractable organic matter shall be considered one percent of total particulate matter unless ecology determines that there is compelling scientific data which demonstrates that the use of this value is inappropriate. The acceptable source impact analysis shall be conducted using the primary aluminum smelter uncontrolled roof vent PAH emission ASIL contained in WAC 173-460-150(3). Note: For example, 100 grams of particulate air emission mass times one percent yields one gram of PAH emissions.

[Statutory Authority: RCW 70.94.331. 91-13-079 (Order 90-62), § 173-460-050, filed 6/18/91, effective 9/18/91.]

WAC 173-460-060 Control technology requirements. Except as provided for in WAC 173-460-040, a person shall not establish, operate, or cause to be established or operated any new toxic air pollutant source which is likely to increase TAP emissions without installing and operating T-BACT. Satisfaction of the performance requirements listed below fulfill the T-BACT requirement for those particular sources. Authorities may develop and require performance requirements in lieu of T-BACT provided that ecology approves the performance requirements as equivalent to T-BACT.

(1) Perchloroethylene dry cleaners. The entire dryer exhaust shall be vented through a control device which will reduce VOC emissions to 5 kg or less per 100 kg dry weight of cleaned articles.

(a) The control device shall meet one of the following conditions:

(i) The exhaust from a carbon adsorber shall contain less than 100 ppm perchloroethylene as measured over a period of one minute before dilution; or

(ii) The air temperature at the outlet of a refrigerated condenser shall reach seven degrees centigrade or less during the cool-down period. A temperature gauge with a minimum range from negative thirty-two to seventy-five degrees centigrade shall be installed and maintained on the condenser outlet duct; or

(iii) The demonstrated control efficiency for any other control device shall be ninety percent or greater by weight, prior to the discharge to the atmosphere measured over a complete control cycle.

(b) The operation of any perchloroethylene dry cleaner shall meet all of the following conditions:

(i) All leaking components shall be repaired immediately; and

(ii) All filtration cartridges shall be drained in the filter housing or other enclosed container before discarding the cartridges.

(2) Petroleum solvent dry cleaning systems. A petroleum solvent dry cleaning system shall include the following:

(a) All cleaned articles are dried in a solvent recovery dryer or the entire dryer exhaust is vented through a properly functioning control device which will reduce emissions to no more than 3.5 kg of VOC per 100 kg dry weight of cleaned articles; and

(b) All cartridge filtration systems are drained in their sealed housing or other enclosed container before discarding the cartridges; and

(c) All leaking components shall be repaired immediately.

(3) Chromic acid plating and anodizing. The facility-wide uncontrolled hexavalent chromium emissions from plating or anodizing tanks shall be reduced by at least ninety-five percent using either of the following control techniques:

(a) An antimist additive or other equally effective control method approved by ecology or authority; or

(b) The tank is equipped with:

(i) A close capture system which shall be in place and in operation at all times electrical current is applied to the tank; and

(ii) An emission control system which limits hexavalent chromium emissions to no more than 0.15 milligrams per ampere-hour of electrical charge applied to the tank or uncontrolled emissions shall be reduced by ninety-five percent.

(4) Chromic acid and plating (greater than 1 kilogram). If the facility-wide hexavalent chromium emissions from chromic acid plating and anodizing are greater than 1 kilogram per year after the application of control techniques required by subsection (3) of this section, the facility-wide hexavalent chromium emissions shall be reduced by at least ninety-nine percent using either of the following control techniques:

(a) An antimist additive or other equally effective control method approved by ecology or authority; or

(b) The tank is equipped with:

(i) A close capture system which shall be in place and in operation at all times electrical current is applied to the tank; and

(ii) An emissions control system which limits hexavalent chromium emissions to no more than 0.03 milligrams per ampere-hour of electrical charge applied to the tank or uncontrolled emissions shall be reduced by ninety-nine percent.

(5) Solvent metal cleaners.

(a) Any solvent metal cleaner shall include all of the following equipment:

(i) A cover for the solvent tank which shall be closed at all times except when processing work in the degreaser. However, the cover shall be closed to the maximum extent possible when parts are being degreased;

(ii) A facility for draining cleaned parts such that the drained solvent is returned to the solvent tank;

(iii) For cold solvent cleaners, a freeboard ratio greater than or equal to 0.75;

(iv) Vapor degreasers shall have:

(A) A high vapor cutoff thermostat with manual reset; and

(B) For degreasers with spray devices, a vapor-up thermostat which will allow spray operation only after the vapor zone has risen to the design level; and

(C) Either a freeboard ratio greater than or equal to 0.75 or a refrigerated freeboard chiller; and

(v) Conveyorized vapor degreasers shall have:

(A) A drying tunnel or a rotating basket sufficient to prevent cleaned parts from carrying liquid solvent out of the degreaser; and

(B) A high vapor cutoff thermostat with manual reset; and

(C) A vapor-up thermostat which will allow conveyor movement only after the vapor zone has risen to the design vapor level.

(b) The operation of any solvent metal cleaner shall meet the following requirements:

(i) Solvent shall not leak from any portion of the degreasing equipment;

(ii) Solvent, including waste solvent, shall be stored in closed containers and shall be disposed of in such a manner as to prevent its evaporation into the atmosphere;

(iii) For cold cleaners, cleaned parts shall be drained until dripping ceases; and

(iv) Degreasers shall be constructed to allow liquid solvent from cleaned parts to drain into a trough or equivalent device and return to the solvent tank.

(c) For open-top vapor degreasers, solvent drag-out shall be minimized by the following measures:

(i) Racked parts shall be allowed to fully drain;

(ii) The work load shall be degreased in the vapor zone until condensation ceases;

(iii) Spraying operations shall be done within the vapor layer;

(iv) When using a powered hoist, the vertical speed of parts in and out of the vapor zone shall be less than three meters per minute (ten feet per minute);

(v) When the cover is open, the lip of the degreaser shall not be exposed to steady drafts greater than 15.3 meters per minute (fifty feet per minute); and

(vi) When equipped with a lip exhaust, the fan shall be turned off when the cover is closed.

(d) For conveyorized vapor degreasers, solvent drag-out shall be minimized by the following measures:

(i) Racked parts shall be allowed to fully drain; and

(ii) Vertical conveyor speed shall be maintained at less than three meters per minute (ten feet per minute).

(6) Abrasive blasting.

(a) Abrasive blasting should be performed inside a booth or hangar designed to capture the blast grit or overspray.

(b) Outdoor blasting of structures or items too large to be reasonably handled indoors should employ control measures such as curtailment during windy periods and enclosure of the area being blasted with tarps.

(c) Outdoor blasting should be performed with either steel shot or an abrasive containing less than one percent (by mass) which would pass through a No. 200 sieve.

(d) All abrasive blasting with sand shall be performed inside a blasting booth or cabinet.

[Statutory Authority: RCW 70.94.331, 91-13-079 (Order 90-62), § 173-460-060, filed 6/18/91, effective 9/18/91.]

WAC 173-460-070 Ambient impact requirement. When applying for a notice of construction under WAC 173-460-040, the owner or operator of a new toxic air

pollutant source which is likely to increase TAP emissions shall demonstrate that emissions from the source are sufficiently low to protect human health and safety from potential carcinogenic and/or other toxic effects. Compliance shall be demonstrated in any area which does not have restricted or controlled public access. The source shall demonstrate compliance by using procedures established in this chapter after complying with the control technology requirements in WAC 173-460-060.

[Statutory Authority: RCW 70.94.331, 91-13-079 (Order 90-62), § 173-460-070, filed 6/18/91, effective 9/18/91.]

WAC 173-460-080 Demonstrating ambient impact compliance. (1) When applying for a notice of construction under WAC 173-460-040, the owner or operator of a new toxic air pollutant source which is likely to increase TAP emissions shall complete an acceptable source impact level analysis for Class A and Class B TAPs. The authority may complete this analysis.

(2) Acceptable source impact analysis.

(a) Carcinogenic effects. The owner or operator shall use dispersion modeling to estimate the maximum incremental ambient impact of each Class A TAP from the source and compare the estimated incremental ambient values to the Class A acceptable source impact levels in WAC 173-460-150. If applicable, the source may use the small quantity emission rate tables in (e) of this subsection.

(b) Other toxic effects. The owner or operator shall use dispersion modeling to estimate the maximum incremental ambient impact of each Class B TAP from the source and compare the estimated ambient values to the Class B acceptable source impact levels in WAC 173-460-160. If applicable, the source may use the small quantity emission rate tables in (e) of this subsection.

(c) Dispersion modeling. The owner or operator shall use dispersion modeling techniques in accordance with EPA guidelines. If concentrations predicted by dispersion screening models exceed applicable acceptable source impact levels, more refined modeling and/or emission estimation techniques shall be used. Refined modeling techniques shall be approved by ecology and the authority. (Note: EPA's guideline on Air Quality Models, EPA 450/2-78-0277R, can be obtained through NTIS (703) 487-4650).

(d) Averaging times. The owner or operator shall use the averaging times in (d)(i), (ii), (iii) of this subsection unless alternate averaging times are approved by ecology. Ecology may allow the use of an alternate averaging time if it determines that the operating procedures of the source may cause a high concentration of a TAP for a short period and that consideration of potential health effects due to peak exposures may be warranted for the TAP.

(i) An annual average shall be used for Class A TAPs listed in WAC 173-460-150(2).

(ii) The averaging times specified in WAC 173-460-150(3) shall be used for Class A TAPs listed in WAC 173-460-150(3).

(iii) A twenty-four-hour averaging time shall be used for Class B TAPs listed in WAC 173-460-160.

(e) Small quantity emission rates. Instead of using dispersion modeling to show compliance with ambient impact demonstration requirements in WAC 173-460-080 and 173-460-090, a source may use the small quantity emission rate tables for all toxic air pollutants with acceptable source impact levels equal to or greater than 0.001 ug/m3. A source must first meet control technology and emission quantification requirements of WAC 173-460-050 and 173-460-060, then demonstrate that the source emission rate does not exceed the rates specified in the appropriate table below.

SMALL QUANTITY EMISSION RATES
CLASS A TOXIC AIR POLLUTANTS

Acceptable Source Impact Level (Annual ug/m3)	TAP Emissions Pounds per Year (10 meter stack and downwash)
0.001 to 0.0099	0.5
0.01 to 0.06	10
0.07 to 0.12	20
0.13 to 0.99	50
1.0 to 10	500

SMALL QUANTITY EMISSION RATES
CLASS B TOXIC AIR POLLUTANTS

Acceptable Source Impact Level (24 hour ug/m3)	TAP Emissions	
	Pounds per Year	Pounds per Hour
Less than 1	175	0.02
1 to 9.9	175	0.02
10 to 29.9	1,750	0.20
30 to 59.9	5,250	0.60
60 to 99.9	10,500	1.20
100 to 129.9	17,500	2.0
130 to 250	22,750	2.6
Greater than 250	43,748	5.0

(3) Criteria for compliance. Compliance with WAC 173-460-070 is demonstrated if the authority determines that, on the basis of the acceptable source impact analysis, the source's maximum incremental ambient air impact levels do not exceed the Class A or Class B acceptable source impact levels in WAC 173-460-150 and 173-460-160; or, if applicable, the source TAP emission rates do not exceed the rates specified in subsection (2)(e) of this section.

[Statutory Authority: RCW 70.94.331, 91-13-079 (Order 90-62), § 173-460-080, filed 6/18/91, effective 9/18/91.]

WAC 173-460-090 Second tier analysis. (1) Applicability.

(a) The owner or operator who cannot demonstrate class A or class B TAP source compliance with WAC 173-460-070 and 173-460-080 using an acceptable source impact level analysis as provided in WAC 173-460-080(2), may submit a petition requesting ecology perform a second tier analysis evaluation to determine a means of compliance with WAC 173-460-070 and 173-460-080 by establishing allowable emissions for the

source. Petitions for second tier analysis evaluation shall be submitted to the local authority or ecology if ecology has jurisdiction over the source. Petitions received by local authorities shall be submitted to ecology within ten days of receipt. A second tier analysis evaluation may be requested when a source wishes to more accurately characterize risks, to justify risks greater than acceptable source impact levels, or to otherwise modify assumptions to more accurately represent risks. Risks may be more accurately characterized by utilizing updated EPA unit risk factors, inhalation reference doses, or other EPA recognized or approved methods. Ecology shall specify the maximum allowable emissions of any class A or class B TAP source based on ecology's second tier analysis evaluation.

(b) Ecology shall evaluate a source's second tier analysis only if:

(i) The authority has advised ecology that other conditions for processing the notice of construction have been met; and

(ii) Emission controls contained in the conditional notice of construction represent at least T-BACT; and

(iii) Ambient concentrations exceed acceptable source impact levels after using more refined emission quantification and air dispersion modeling techniques.

(c) Ecology shall determine whether the conditions in (b)(i), (ii), and (iii) of this subsection for a second tier analysis have been satisfied within ten working days of receipt of all information needed to make the determination. The matter shall be returned to the authority if ecology finds the conditions for a second tier analysis evaluation have not been met.

(2) Jurisdiction.

(a) Any second tier analysis application submitted by a source wishing to emit toxic air pollutants at levels greater than the acceptable source impact level contained in WAC 173-460-150 or 173-460-160 shall be approved or rejected by ecology.

(b) Any new emission limits approved by ecology as a result of the second tier analysis evaluation shall be enforced by the authority provided the authority approves the new emission limits.

(3) Approval criteria.

(a) Based on the second tier analysis, ecology may approve the emissions of TAPs from a source where ambient concentrations exceed acceptable source impact levels only if it determines that emission controls represent at least T-BACT and the source demonstrates that emissions of Class A TAPs are not likely to result in an increased cancer risk of more than one in one hundred thousand. The emission of Class A TAPs at levels likely to result in an increased cancer risk of more than one in one hundred thousand requires the approval of the director after complying with WAC 173-460-100.

(b) Ecology shall consider the second tier analysis and other information submitted by the applicant as well as department of health comments.

(i) Comments from other agencies and universities with appropriate expertise may also be considered in the decision to approve emissions that exceed acceptable source impact levels.

(ii) Public comments shall be considered if the source applies for a risk management decision under WAC 173-460-100.

(4) Contents of the second tier analysis.

(a) The second tier analysis consists of a health impact assessment. The applicant shall complete and submit a health impact assessment to ecology which includes the following information. Ecology may approve the submittal of less information if it determines that such information is sufficient to perform the second tier analysis evaluation. The health impact assessment shall be prepared in accordance with EPA's risk assessment guidelines as defined in WAC 173-460-020(8).

(i) Demographics such as population size, growth, and sensitive subgroups;

(ii) Toxicological profiles of all toxic air pollutants that exceed the ASIL;

(iii) Characterization of existing pathways and total daily intake for toxic air pollutants that exceed the ASIL;

(iv) Contribution of the proposed source toward total daily intake for toxic air pollutants that exceed the ASIL;

(v) Using existing data, characterization of risk from current exposure to the toxic air pollutants that exceed the ASIL. This includes existing TAP sources in the area, and anticipated risk from the new source;

(vi) Additive cancer risk for all Class A toxic air pollutants which may be emitted by the source;

(vii) Other information requested by ecology and pertinent to ecology's decision to approve the second tier application;

(viii) Uncertainty in the data; and

(ix) Length of exposure and persistence in the environment.

(b) The health assessment shall utilize current scientific information. New scientific information on the toxicological characteristics of toxic air pollutants may be used to justify modifications of upper bound unit risk factors used to calculate ASILs in WAC 173-460-150 and/or absorption rates of individual toxic air pollutants if ecology determines there is compelling scientific data which demonstrates that the use of EPA recognized or approved methods are inappropriate.

(5) Additional information.

(a) If approved by ecology, newly discovered scientific information which was unavailable at the time of the original submission of the health assessment may be used to justify modifications of the original health assessment. Ecology may approve the additional information if the source exercised due diligence at the time of original submission.

(b) Within thirty days after receipt of the second tier analysis and all supporting data and documentation, ecology may require the submission of additional information needed to evaluate the second tier analysis.

(6) Determination.

(a) If the second tier analysis is approved by ecology, ecology will return the petition to the authority and the authority may approve the notice of construction.

(b) The authority shall specify allowable emissions consistent with ecology's second tier analysis evaluation determination expressed in weight of pollutant per unit time for each emissions unit involved in the application. The notice of construction shall also include all requirements necessary to assure that conditions of this chapter and chapter 173-400 WAC are satisfied.

(7) Public notification requirements.

Ecology decisions regarding second tier analysis or decisions under WAC 173-460-100 shall comply with public notification requirements contained in WAC 173-400-171.

[Statutory Authority: RCW 70.94.331, 91-13-079 (Order 90-62), § 173-460-090, filed 6/18/91, effective 9/18/91.]

WAC 173-460-100 Request for risk management decision. (1) Applicability. The owner or operator of a source that emits Class A TAPs that are likely to result in an increased cancer risk of more than one in one hundred thousand may request that ecology establish allowable emissions for the source.

(2) Contents of the application.

The applicant shall meet the submittal requirements of WAC 173-460-090(1) and submit all materials required under WAC 173-460-090 (4) and (5). The applicant may submit the request for a risk management decision concurrently with the second tier analysis application. Prior denial of the second tier analysis application under WAC 173-460-090(6) is not required.

(3) Criteria for approval. Ecology may approve the emissions of TAPs from a source where ambient concentrations are likely to result in an increased cancer risk of more than one in one hundred thousand only if the source first demonstrates the following:

(a) Proposed emission controls represent all known available and reasonable technology; and

(b) Application of all known available toxic air pollution prevention methods to reduce, avoid, or eliminate toxic air pollutants prior to their generation including recycling, chemical substitution, and efforts to redesign processes; and

(c) The proposed changes will result in a greater benefit to the environment as a whole.

(4) Additional methods to reduce toxic air pollutants. In addition to the requirements in subsection (3) of this section, the owner or operator may propose and ecology may consider innovative or established measures that are likely to reduce community exposure to toxic air pollutants provided that such measures are not already required. Examples of innovative measures include but are not limited to:

(a) Reducing vehicle miles traveled to the facility through vanpool programs and transportation management plans;

(b) Permanent removal of woodstoves; and

(c) Purchasing used automobiles. Examples of established methods include, but are not limited to, emission bubbles and offsets.

(5) Public involvement. Ecology will endeavor to initiate public notice and comment within thirty days of receipt of a completed risk management decision

application. In addition to the public notice and comment requirements of WAC 173-400-171, the owner or operator shall:

(a) Present the results of the second tier analysis, the proposed emission controls, pollution prevention methods, additional proposed measures, and remaining risks; and

(b) Participate in discussions with and answer questions from the affected community.

(6) Time limitation. The owner or operator shall commence construction within eighteen months of the director's approval.

[Statutory Authority: RCW 70.94.331, 91-13-079 (Order 90-62), § 173-460-100, filed 6/18/91, effective 9/18/91.]

WAC 173-460-110 Acceptable source impact levels.

There are three types of acceptable source impact levels: Risk-based, threshold-based, and special acceptable source impact levels. They are computed as follows:

(1) Risk-based acceptable source impact levels for Class A TAPs. Risk-based acceptable source impact levels means the annual average concentration, in micrograms per cubic meter, that may cause an increased cancer risk of one in one million. Ecology shall calculate the risk-based acceptable source impact levels for Class A TAPs in WAC 173-460-150(2) using the following equation:

$$\text{Risk based ASIL} = \frac{\text{RISK}}{\text{URF}}$$

(ug/m3)

Where:

RISK=Cancer risk level (1 in 1,000,000)

URF=Upper bound unit risk factor as published in IRIS data base or other appropriate sources (ug/m3)-1.

(2) Threshold-based acceptable source impact levels for Class B TAPs. Threshold-based acceptable source impact levels in WAC 173-460-160 shall be determined as follows:

(a) If a Class B TAP has an Environmental Protection Agency Inhalation Reference Dose, the inhalation reference dose and specified averaging time shall be used.

(b) Other Class B TAP acceptable source impact levels shall be determined by dividing the TLV-TWA by three hundred to calculate a twenty-four hour TWA acceptable source impact level.

(3) Special acceptable source impact levels.

(a) Ecology may establish special acceptable source impact levels for TAPs for which upper bound risk factors or TLVs have not been established, or for mixtures of compounds if it determines that the above acceptable source impact level methods are not appropriate, do not adequately protect human health or are overly stringent.

(b) The averaging times for special ASILs are listed in WAC 173-460-150(3).

[Statutory Authority: RCW 70.94.331, 91-13-079 (Order 90-62), § 173-460-110, filed 6/18/91, effective 9/18/91.]

WAC 173-460-120 Scientific review and amendment of acceptable source impact levels and lists. (1) Ongoing scientific review.

(a) To use the best available scientific information, ecology shall conduct an ongoing review of information concerning whether to add or delete toxic air pollutants to WAC 173-460-150 or 173-460-160, what acceptable source impact levels should be used to review emissions of TAPs, source applicability and exemptions.

(b) A complete review shall be made at least once every three years at which time ecology shall consider scientific information developed by the E.P.A., Washington department of health, other states or other scientific organizations, scientific information provided by any person, and results of second tier analyses evaluations.

(2) Criteria for listing as Class A or Class B TAP.

(a) Ecology shall list a substance or group of substances as Class A or Class B TAPs if the department has reason to believe that the compound or group of compounds are likely to be emitted to the air from an air pollution source and the air emission of such compound or compounds could impact public health. The compounds shall be removed from the list if ecology determines that these conditions no longer exist.

(b) Ecology may list mixtures of compounds as Class A and/or Class B TAPs if ecology determines that the health impact of the emission mixture is likely to be different from the known individual chemical impacts.

(3) Acceptable source impact level (ASIL).

Ecology may adopt an ASIL only if ecology determines that concentrations at that level will not unreasonably endanger human health.

[Statutory Authority: RCW 70.94.331. 91-13-079 (Order 90-62), § 173-460-120, filed 6/18/91, effective 9/18/91.]

WAC 173-460-130 Fees. (1) Pursuant to RCW 70.94.152, ecology or the authority may charge a fee for the review of notices of construction.

(2) The fee imposed under this section may not exceed the cost of reviewing plans, specifications, and other information and administering such notice.

[Statutory Authority: RCW 70.94.331. 91-13-079 (Order 90-62), § 173-460-130, filed 6/18/91, effective 9/18/91.]

WAC 173-460-140 Remedies. Violations of this chapter are subject to the penalty provisions and/or other remedies provided in chapter 70.94 RCW.

[Statutory Authority: RCW 70.94.331. 91-13-079 (Order 90-62), § 173-460-140, filed 6/18/91, effective 9/18/91.]

WAC 173-460-150 Class A toxic air pollutants: Known, probable and potential human carcinogens and acceptable source impact levels.

(1) TABLE I
CLASS A TOXIC AIR POLLUTANTS
Known and Probable Carcinogens

CAS #	SUBSTANCE
75-07-0	Acetaldehyde
107-13-1	Acrylonitrile
309-00-2	Aldrin
—	Aluminum smelter polyaromatic hydrocarbon emissions

CAS #	SUBSTANCE
117-79-3	2-Aminoanthraquinone
97-56-3	o-Aminoazotoluene
92-67-1	4-Aminobiphenyl
61-82-5	Amitrole
—	Arsenic and inorganic arsenic compounds
1332-21-4	Asbestos
2465-27-2	Auramine (technical grade)
56-55-3	Benz(a)anthracene
71-43-2	Benzene
92-87-5	Benzdine and its salts
50-32-8	Benzo(a)pyrene
204-99-2	Benzo(b)fluoranthene
205-82-3	Benzo(j)fluoranthene
205-08-9	Benzo(k)fluoranthene
1694-09-3	Benzyl violet 4b
—	Beryllium and compounds
111-44-4	Bis(2-chloroethyl)ether
117-81-7	Bis(2-ethylhexyl)phthalate
542-88-1	Bis(chloromethyl)ether and technical-grade chloromethyl methyl ether
106-99-0	1,3-Butadiene
3068-88-0	B-Butyrolactone
—	Cadmium and compounds
56-23-5	Carbon tetrachloride
57-74-9	Chlordane
74-87-3	Chlorodibromoethane
67-66-3	Chloroform
107-30-2	Chloromethyl methyl ether (technical-grade)
108-43-0	Chlorophenols
126-99-8	Chloroprene
—	Chromium, hexavalent metal and compounds
—	Coke oven emissions
8001-58-9	Creosote
135-20-6	Cupferron
94-75-7	2,4-D and esters
50-29-3	DDT (1,1,1 Trichloro-2,2-Bis(p-chlorophenyl)-ethane)
613-35-4	N,N-Diacetylbenzidine
101-80-4	4,4'-Diaminodiphenyl ether
226-36-8	Dibenz(a,h)acridine
53-70-3	Dibenz(a,h)anthracene
224-42-0	Dibenz(a,j)acridine
189-64-0	Dibenzo(a,h)pyrene
191-30-0	Dibenzo(a,l)pyrene
189-55-9	1,2:7,8-Dibenzopyrene (dibenzo(a,i)pyrene)
192-65-4	Dibenzo(a,e)pyrene
—	1,4-Dichloro-2-butene
28434-86-8	3,3'-Dichloro-4,4'-diaminodiphenyl ether
106-46-7	1,4-Dichlorobenzene
91-94-1	3,3'-Dichlorobenzidine
107-06-2	1,2-Dichloroethane (ethylene chloride)
75-09-2	Dichloromethane (methylene chloride)
696-28-6	Dichlorophenylarsine (arsenic group)
78-87-5	1,2-Dichloropropane
60-57-1	Dieldrin
1615-80-1	1,2-Diethylhydrazine

CAS #	SUBSTANCE	CAS #	SUBSTANCE
101-90-6	Diglycidyl resorcinol ether	555-84-9	1-(5-Nitrofurfurylidene)amino)-2-imidazolidinone
119-90-4	3,3'-Dimethoxybenzidine (ortol-dianisidine)	126-85-2	Nitrogen mustard N-oxide
77-78-1	Dimethyl sulfate	302-70-5	Nitrogen mustard n-oxide hydrochloride
540-73-8	1,2-Dimethylhydrazine	79-46-9	2-Nitropropane
25321-14-6	Dinitrotoluenes (mixed)	615-53-2	N-Nitroso-n-methylurethane
123-91-9	1,4-Dioxane	2646-17-5	Oil orange SS
—	Dioxins and furans	794-93-4	Panfuran S (dihydroxymethylfuratrizine)
122-66-7	1,2-Diphenylhydrazine	127-18-4	Perchloroethylene (tetrachloroethylene)
106-93-4	Ethylene Dibromide	63-92-3	Phenoxybenzamine hydrochloride
75-21-8	Ethylene oxide	—	N-Phenyl-2-naphthylamine
50-00-0	Formaldehyde	—	Polyaromatic Hydrocarbons (PAH)
—	Furium (nitrofurane group)	1336-36-3	Polychlorinated biphenyls (PCBs)
765-34-4	Glyciadaldehyde	3761-53-3	Ponceau MX
76-44-8	Heptachlor	—	P(p)(alpha, alpha, alpha)-Tetrachlorotoluene
118-74-1	Hexachlorobenzene	1746-01-6	2,3,7,8-Tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD)
319-84-6	Hexachlorocyclohexane (Lindane) Alpha BHC	139-65-1	4,4'-Thiodianiline
319-85-7	Hexachlorocyclohexane (Lindane) Beta BHC	1314-20-1	Thorium dioxide
580-89-9	Hexachlorocyclohexane (Lindane) Gamma BHC	584-84-9	2,4-Toluene diisocyanate
67-72-1	Hexachloroethane	95-53-4	o-Toluidine & its hydrochloride
193-39-5	Indeno(1,2,3-cd)pyrene	8001-35-2	Toxaphene
—	Isopropyl oils	55738-54-0	Trans-2((Dimethylamino)methylimino)-5-(5-nitro-2-furyl)vinyl-1,3,4-oxadiazole
301-04-2	Lead acetate	79-01-6	Trichloroethylene
7446-27-7	Lead phosphate	25167-82-2	Trichlorophenol (mixed)
129-15-7	2-Methyl-1-nitroanthraquinone	75-01-4	Vinyl Chloride
592-62-1	Methylazoxymethanol & acetate		(2) TABLE II
3697-24-3	5-Methylchrysene		CLASS A TOXIC AIR POLLUTANTS WITH ESTABLISHED ACCEPTABLE SOURCE IMPACT LEVELS
101-14-4	4,4'-Methylenebis(2-chloroaniline) (MBOCA)		
838-88-0	4,4'-Methylenebis(2-methylaniline)		
101-77-9	4,4-Methylenedianiline		
13552-44-8	4,4-Methylenedianiline dihydrochloride		
64091-91-4	4-(Methylnitrosamino)-1-(3-pyridyl)-1-butanone		
—	Mirex		
139-91-3	5-(Morpholinomethyl)-3-((5-nitrofurfurylidene)amino)-2-oxazoli din one		
924-16-3	N-Nirtosodi-n-butylamine		
134-32-7	1-Napthylamine		
7440-02-0	Nickel and compounds		
531-82-8	N-(4-(5-Nirto-2-furyl)-2-thiazolyl)acetamide		
759-73-9	N-Nirtoso-n-ethylurea (NEU)		
621-64-7	N-Nirtosodi-n-propylamine		
10595-95-6	N-Nirtosomethylethylamine		
59-89-2	N-Nirtosomorpholine		
86-30-6	N-Nirtrosodiphenylamine		
55-18-5	N-Nirtrosodiethylamine (diethylnitrosoamine) (DEN)		
62-75-9	N-Nirtrosodimethylamine		
602-87-9	5-Nitroacenaphthene		
1836-75-5	Nitrofen		
—	Nitrofurans Furazolidone		
59-87-0	Nitrofurazone		

CAS #	SUBSTANCE	10-6 RISK ASIL MICROGRAMS/M ³ ANNUAL AVERAGE
75-07-0	Acetaldehyde	0.4500000
107-13-1	Acrylonitrile	0.0150000
309-00-2	Aldrin	0.0002000
—	Arsenic and inorganic arsenic compounds	0.0002300
1332-21-4	Asbestos (Note: fibers/ml)	0.0000042
71-43-2	Benzene	0.1200000
92-87-5	Benzidine and its salts	0.0000150
50-32-8	Benzo(a)pyrene	0.0006000
—	Beryllium and compounds	0.0004200
111-44-4	Bis(2-chloroethyl)ether	0.0030000
542-88-1	Bis(chloromethyl)ether and technical-grade chloromethyl methyl ether	0.0000160
—	Cadmium and compounds	0.0005600
56-23-5	Carbon tetrachloride	0.0670000
57-74-9	Chlordane	0.0027000
67-66-3	Chloroform	0.0430000
108-43-0	Chlorophenols	0.1800000
—	Chromium, hexavalent metal and compounds	0.0000830
—	Coke oven emissions	0.0016000
50-29-3	DDT (1,1,1 Trichloro-2,2-Bis-(p-chlorophenyl)-ethane)	0.0100000
—	1,4-Dichloro-2-butene	0.0003800
107-06-2	1,2-Dichloroethane (ethylene chloride)	0.0400000
75-09-2	Dichloromethane (methylene chloride)	2.0000000
60-57-1	Dieldrin	0.0002000
122-66-7	1,2-Diphenylhydrazine	0.0045000
106-93-4	Ethylene Dibromide	0.0045000
75-21-8	Ethylene oxide	0.0100000
50-00-0	Formaldehyde	0.0770000
76-44-8	Heptachlor	0.0007700
118-74-1	Hexachlorobenzene	0.0020000

CAS #	SUBSTANCE	10-6 RISK ASIL MICRO- GRAMS/M ³ ANNUAL AVERAGE
67-72-1	Hexachloroethane	0.2500000
127-18-4	Perchloroethylene (tetrachloroethylene)	1.1000000
1746-01-6	2,3,7,8-Tetrachlorodibenzi-p-dioxin (2,3,7,8-TCDD)	0.00000003
8001-35-2	Toxaphene	0.0030000
79-01-6	Trichloroethylene	0.8000000
25167-82-2	Trichlorophenol (mixed)	0.1800000
75-01-4	Vinyl Chloride	0.0230000

CAS #	SUBSTANCE	ASIL MICRO- GRAMS/M ³ TWENTY-FOUR- HOUR AVERAGE
7429-90-5	Aluminum, as Al soluble salts	6.7
7429-90-5	Aluminum, as Al welding fumes	16.7
504-29-0	2-Aminopyridine	6.7
7664-41-7	Ammonia	59.9
12125-02-9	Ammonium chloride fume	33.3
3825-26-1	Ammonium perfluorooctanoate	0.3
7773-06-0	Ammonium sulfamate	33.3
628-63-7	n-Amyl acetate	1764.9
626-38-0	sec-Amyl acetate	2214.5
62-53-3	Aniline & homologues	33.3
29191-52-4	Anisidine (o-,p- isomers)	1.7
7440-36-0	Antimony & compounds as Sb	1.7
1309-64-4	Antimony trioxide, as Sb	1.7
7784-42-1	Arsine	0.7
8052-42-4	Asphalt (petroleum) fumes	16.7
1912-24-9	Atrazine	16.7
86-50-0	Azinphos-methyl	0.7
7440-39-3	Barium, soluble compounds Ba	1.7
17804-35-2	Benomyl	33.3
94-36-0	Benzoyl Peroxide	16.7
100-44-7	Benzyl chloride	16.7
92-52-4	Biphenyl	5.0
1304-82-1	Bismuth telluride	33.3
1304-82-1	Bismuth telluride Se doped	16.7
1303-96-4	Borates, anhydrous	3.3
1303-96-4	Borates, decahydrate	16.7
1303-96-4	Borates, pentahydrate	3.3
1303-86-2	Boron oxide	33.3
10294-33-4	Boron tribromide	33.3
7726-95-6	Boron trifluoride	10.0
314-40-9	Bromacil	33.3
7726-95-6	Bromine	2.3
7789-30-2	Bromine pentafluoride	2.3
75-25-2	Bromoform	16.7
106-97-8	Butane	6327.0
111-76-2	2-Butoxyethanol	399.6
123-86-4	n-Butyl acetate	2364.3
105-46-4	sec-Butyl acetate	3163.5
540-88-5	tert-Butyl acetate	3163.5
141-32-2	Butyl acrylate	183.2
71-36-3	n-Butyl alcohol	499.5
78-92-2	sec-Butyl alcohol	1015.7
75-65-0	tert-Butyl alcohol	999.0
1189-85-1	tert-Butyl chromate, as CrO3	0.3
2426-08-6	n-Butyl glycidyl ether (BGE)	449.6
138-22-7	n-Butyl lactate	83.3
109-79-5	Butyl mercaptan	5.0
109-73-9	Butylamine	50.0
89-72-5	o-sec-Butylphenol	99.9
98-51-1	p-tert-Butyltoluene	199.8
156-62-7	Calcium cyanamide	1.7
1305-62-0	Calcium hydroxide	16.7
1305-78-8	Calcium oxide	6.7
76-22-2	Camphor, synthetic	40.0
105-60-2	Caprolactam, dust	3.3
105-60-2	Caprolactam, vapor	66.6
2425-06-1	Captafol	0.3
133-06-2	Captan	16.7
63-25-2	Carbaryl	16.7
1563-66-2	Carbofuran	0.3
1333-86-4	Carbon black	11.7
75-15-0	Carbon disulfide	99.9
558-13-4	Carbon tetrabromide	4.7
353-50-4	Carbonyl fluoride	16.7
120-80-9	Catechol	66.6
21351-79-1	Cesium hydroxide	6.7
8001-35-2	Chlorinated camphene	1.7
—	Chlorinated diphenyl oxide	1.7
7782-50-5	Chlorine	10.0
10049-04-4	Chlorine dioxide	1.0
7790-91-2	Chlorine trifluoride	1.3
600-25-9	1-Chloro-1-nitropropane	33.3
107-20-0	Chloroacetaldehyde	10.0
532-27-4	a-Chloroacetophenone	1.0
79-04-9	Chloroacetyl chloride	0.7
2698-41-1	o-Chlorobenzylidene malonitrile	1.3
108-90-7	Chlorobenzene	1165.5
74-97-5	Chlorobromomethane	3496.5
75-45-6	Chlorodifluoromethane	11655.0
76-15-3	Chloropentafluoroethane	21045.6

(3) TABLE III
CLASS A TOXIC AIR POLLUTANTS WITH SPECIAL
ACCEPTABLE SOURCE IMPACT LEVELS

CAS #	SUBSTANCE	ASIL MICRO- GRAMS/M ³	AVERAGING TIME
—	Primary aluminum smelter uncontrolled roof vent polyaromatic hydrocarbon (PAH) emissions (Note: Quantify according to WAC 173-460-050 (4)(d))	0.0013	Annual
61-82-5	Amitrole	0.6	24 hour
106-99-0	1,3-Butadiene	73.3	24 hour
126-99-8	B-Chloroprene	116.6	24 hour
94-75-7	2,4-D and esters	33.3	24 hour
106-46-7	1,4-Dichlorobenzene	1500	24 hour
78-87-5	1,2-Dichloropropane	1166.6	24 hour
77-78-1	Dimethyl sulfate	1.6	24 hour
540-73-8	1,2-Dimethylhydrazine	3.3	24 hour
123-91-9	1,4-Dioxane	300	24 hour
58-89-9	Lindane	1.6	24 hour
101-14-4	4,4'-Methylenebis (2-Chloroaniline) (MBOCA)	0.7	24 hour
101-77-9	4,4-Methylenedianiline	2.6	24 hour
7440-02-0	Nickel and compounds	3.3	24 hour
79-46-9	2-Nitropropane	116.6	24 hour
—	Polyaromatic hydrocarbon (PAH) emissions (Note: Quantify according to WAC 173-460-050 (4)(d))	0.0006	Annual
584-84-9	2,4-Toluene diisocyanate	0.1	24 hour
95-53-4	O-Toluidine	30	24 hour

[Statutory Authority: RCW 70.94.331. 91-13-079 (Order 90-62), § 173-460-150, filed 6/18/91, effective 9/18/91.]

WAC 173-460-160 Class B toxic air pollutants and acceptable source impact levels. The following table lists Class B toxic air pollutants and acceptable source impact levels:

CLASS B TOXIC AIR POLLUTANTS AND ACCEPTABLE
SOURCE IMPACT LEVELS

CAS #	SUBSTANCE	ASIL MICRO- GRAMS/M ³ TWENTY-FOUR- HOUR AVERAGE
86-88-4	ANTU	1.0
75-07-0	Acetic acid	83.3
108-24-7	Acetic anhydride	66.6
67-64-1	Acetone	5927.4
75-05-8	Acetonitrile	233.1
79-27-6	Acetylene tetrabromide	50.0
107-02-8	Acrolein	0.8
79-06-1	Acrylamide	0.1
79-10-7	Acrylic acid	99.9
107-18-6	Allyl alcohol	16.7
106-92-3	Allyl glycidyl ether (AGE)	73.3
2179-59-1	Allyl propyl disulfide	40.0
7429-90-5	Aluminum, Al alkyls	6.7
7429-90-5	Aluminum, as AL metal dust	33.3
7429-90-5	Aluminum, as AL pyro powders	16.7

CAS #	SUBSTANCE	ASIL MICRO-GRAMS/M ³ TWENTY-FOUR-HOUR AVERAGE	CAS #	SUBSTANCE	ASIL MICRO-GRAMS/M ³ TWENTY-FOUR-HOUR AVERAGE
76-06-2	Chloropicrin	2.3	528-29-0	Dinitrobenzene, all isomers	3.3
2039-87-4	o-Chlorostyrene	949.1	78-34-2	Dioxathion	0.7
95-49-8	o-Chlorotoluene	832.5	122-39-4	Diphenylamine	33.3
2921-88-2	Chlorpyrifos	0.7	123-19-3	Dipropyl ketone	782.6
7440-47-3	Chromium (II) compounds, as Cr	1.7	34590-94-8	Dipropylene glycol methyl ether	1998.0
7440-47-3	Chromium (III) compounds, Cr	1.7	85-00-7	Diquat	1.7
7440-47-3	Chromium (metal)	1.7	97-77-8	Disulfiram	6.7
14977-61-8	Chromyl chloride	0.5	298-04-4	Disulfuton	0.3
2971-90-6	Clopidol	33.3	128-37-0	2,6-Ditert. butyl-p-cresol	33.3
7440-48-4	Cobalt as Co metal Dust and fu	0.2	330-54-1	Diuron	33.3
10210-68-1	Cobalt carbonyl as Co	0.3	1321-74-0	Divinyl benzene	166.5
16842-03-8	Cobalt hydrocarbonyl	0.3	2104-64-5	EPN	1.7
7440-50-8	Copper, Dusts and mists, as Cu	3.3	115-29-7	Endosulfan	0.3
7440-50-8	Copper, Fume	0.7	72-20-8	Endrin	0.3
—	Cotton dust, raw	0.7	13838-16-9	Enflurane	1914.8
1319-77-3	Cresol, all isomers	73.3	141-43-5	Ethanolamine	26.6
4170-30-3	Crotonaldehyde	20.0	563-12-2	Ethion	1.3
299-86-5	Cruformate	16.7	110-80-5	2-Ethoxyethanol	63.3
98-82-2	Cumene	815.9	111-15-9	2-Ethoxyethyl acetate	89.9
420-04-2	Cyanamide	6.7	60-29-7	Ethyl Ether	3996.0
151-50-8	Cyanides, as CN	16.7	141-78-6	Ethyl acetate	4662.0
460-19-5	Cyanogen	66.6	140-88-5	Ethyl acrylate	66.6
506-77-4	Cyanogen chloride	2.0	64-17-5	Ethyl alcohol	6327.0
110-82-7	Cyclohexane	3496.5	541-85-5	Ethyl amyl ketone	432.9
108-93-0	Cyclohexanol	666.0	100-41-4	Ethyl benzene	1448.6
108-94-1	Cyclohexanone	333.0	74-96-4	Ethyl bromide	2963.7
110-83-8	Cyclohexene	3380.0	106-35-4	Ethyl butyl ketone	765.9
108-91-8	Cyclohexylamine	133.2	75-00-3	Ethyl chloride	8658.0
121-82-4	Cyclonite	5.0	109-94-4	Ethyl formate	999.0
542-92-7	Cyclopentadiene	666.0	75-08-1	Ethyl mercaptan	3.3
287-92-3	Cyclopentane	5727.6	78-10-4	Ethyl silicate	283.1
13121-70-5	Cyhexatin	16.7	75-04-7	Ethylamine	59.9
94-75-7	2,4-D	33.3	107-07-3	Ethylene chlorohydrin	10.0
17702-41-9	Decaborane	1.0	107-21-1	Ethylene glycol	416.3
8065-48-3	Demeton	0.3	628-96-6	Ethylene glycol dinitrate	1.0
117-81-7	Di(2-ethylhexyl)phthalate	16.7	107-15-3	Ethylenediamine	83.3
123-42-2	Diacetone alcohol	799.2	151-56-4	Ethylenimine	3.3
333-41-5	Diazinon	0.3	16219-75-3	Ethylidene norbornene	83.3
334-88-3	Diazomethane	1.3	100-74-3	N-Ethylmorpholine	76.6
19287-45-7	Diborane	0.3	22224-92-6	Fenamiphos	0.3
107-66-4	Dibutyl phosphate	16.7	115-90-2	Fensulfothion	0.3
84-74-2	Dibutyl phthalate	16.7	55-38-9	Fenthion	0.7
102-81-8	2-N-Dibutylaminoethanol	46.6	14484-64-1	Ferbam	33.3
594-72-9	1,1-Dichloro-1-nitroethane	33.3	12604-58-9	Ferrovandium dust	3.3
118-52-5	1,3-Dichloro-5,5-dimethyl hydantoin	0.7	—	Febrous glass dust	33.3
7572-29-4	Dichloroacetylene	1.3	—	Fluorides, as F	8.3
95-50-1	o-Dichlorobenzene	999.0	7782-41-4	Fluorine	6.7
106-46-7	p-Dichlorobenzene	1498.5	944-22-9	Fonofos	0.3
75-71-8	Dichlorodifluoromethane	16483.5	75-12-7	Formamide	50.0
75-34-3	1,1-Dichloroethane	2697.3	64-18-6	Formic acid	30.0
111-44-4	Dichloroethyl ether	99.9	98-01-1	Furfural	26.6
540-59-0	1,2-Dichloroethylene	2630.7	98-00-1	Furfuryl alcohol	133.2
75-43-4	Dichlorofluoromethane	133.2	7782-65-2	Germanium tetrahydride	2.0
78-87-5	1,2-Dichloropropane	1165.5	111-30-8	Glutaraldehyde	2.3
542-75-6	Dichloropropene	16.7	556-52-5	Glycidol	249.8
75-99-0	2,2-Dichloropropionic acid	20.0	7440-58-6	Hafnium	1.7
76-14-2	Dichlorotetrafluoroethane	23310.0	151-67-7	Halothane	1332.0
62-73-7	Dichlorvas	3.3	142-82-5	Heptane (n-Heptane)	5328.0
141-66-2	Dicrotophos	0.8	87-68-3	Hexachlorobutadiene	0.8
77-73-6	Dicyclopentadiene	99.9	77-47-4	Hexachlorocyclopentadiene	0.3
102-54-5	Dicyclopentadienyl iron	33.3	1335-87-1	Hexachloronaphthalene	0.7
60-57-1	Dieldrin	0.8	684-16-2	Hexafluoroacetone	2.3
111-42-2	Diethanolamine	50.0	822-06-0	Hexamethylene diisocyanate	0.1
96-22-0	Diethyl ketone	2347.7	100-54-3	Hexane (n-Hexane)	599.4
84-66-2	Diethyl phthalate	16.7	—	Hexane, other isomers	5994.0
109-89-7	Diethylamine	99.9	591-78-6	2-Hexanone (MBK)	66.6
100-37-8	Diethylaminoethanol	166.5	108-84-9	sec-Hexyl acetate	999.0
111-40-0	Diethylene triamine	13.3	107-41-5	Hexylene glycol	416.3
75-61-6	Difluorodibromomethane	2863.8	10035-10-6	Hydrogen bromide	33.3
2238-07-5	Diglycidyl ether	1.7	7647-01-0	Hydrogen chloride	23.3
108-83-8	Diisobutyl ketone	499.5	74-90-8	Hydrogen cyanide	33.3
108-18-9	Diisopropylamine	66.6	7664-39-3	Hydrogen fluoride, as F	8.3
127-19-5	Dimethyl acetamide	116.6	7722-84-1	Hydrogen peroxide	5.0
124-40-3	Dimethylamine	59.9	7783-07-5	Hydrogen selenide, as Se	0.7
121-69-7	Dimethylaniline	83.3	7783-06-4	Hydrogen sulfide	46.6
68-12-2	Dimethylformamide	99.9	123-31-9	Hydroquinone	6.7
57-14-7	1,1-Dimethylhydrazine	3.3	999-61-1	2-Hydroxypropyl acrylate	10.0
131-11-3	Dimethylphthalate	16.7	95-13-6	Indene	149.9
148-01-6	Dinitolmide	16.7	7440-74-6	Indium, & compounds as In	0.3
534-52-1	Dinitro-o-cresol	0.7	7553-56-2	Iodine	3.3

CAS #	SUBSTANCE	ASIL MICRO-GRAMS/M ³ TWENTY-FOUR-HOUR AVERAGE	CAS #	SUBSTANCE	ASIL MICRO-GRAMS/M ³ TWENTY-FOUR-HOUR AVERAGE
75-47-8	Iodoform	33.3	21087-64-9	Metribuzin	16.7
1309-37-1	Iron oxide fume, Fe ₂ O ₃ as Fe	16.7	7786-34-7	Mevinphos	0.3
13463-40-6	Iron pentacarbonyl, as Fe	2.7	7439-98-7	Molybdenum, as Mo soluble cpds	16.7
—	Iron salts, soluble as Fe	3.3	7439-98-7	Molybdenum, insoluble cpds	33.3
123-92-2	Isoamyl acetate	1748.3	6923-22-4	Monocrotophos	0.8
123-51-3	Isoamyl alcohol	1198.8	110-91-8	Morpholine	233.1
110-19-0	Isobutyl acetate	2331.0	300-76-5	Naled	10.0
78-83-1	Isobutyl alcohol	499.5	91-20-3	Napthalene	166.5
26952-21-6	Isocetyl alcohol	899.1	54-11-5	Nicotine	1.7
78-59-1	Isophorone	83.3	1929-82-4	Nitrapyrin	33.3
4098-71-9	Isophorone diisocyanate	0.1	7697-37-2	Nitric acid	16.7
109-59-1	Isopropoxyethanol	349.7	10102-43-9	Nitric oxide	99.9
108-21-4	Isopropyl acetate	3163.5	100-01-6	p-Nitroaniline	10.0
67-63-0	Isopropyl alcohol	3263.4	98-95-3	Nitrobenzene	16.7
108-20-3	Isopropyl ether	3496.5	100-00-5	p-Nitrochlorobenzene	2.0
4016-14-2	Isopropyl glycidyl ether (IGE)	799.2	79-24-3	Nitroethane	1032.3
75-31-0	Isopropylamine	40.0	7783-54-2	Nitrogen trifluoride	99.9
768-52-5	N-Isopropylaniline	33.3	55-63-0	Nitroglycerin	1.7
463-51-4	Ketene	3.0	75-52-5	Nitromethane	832.5
3687-31-8	Lead arsenate, as Pb ₃ (AsO ₄) ₂	0.5	108-03-2	1-Nitropropane	299.7
7758-97-6	Lead chromate, as Cr	0.2	88-72-2	Nitrotoluene	36.6
68476-85-7	Liquified petroleum gas	5994.0	111-84-2	Nonane	3496.5
7580-67-8	Lithium hydride	0.1	2234-13-1	Octachloronaphthalene	0.3
1309-48-4	Magnesium oxide fume	33.3	111-65-9	Octane	4828.5
121-75-5	Malathion	33.3	8012-95-1	Oil mist, mineral	16.7
108-31-6	Maleic anhydride	3.3	20816-12-0	Osmium tetroxide, as Os	0.007
7439-96-5	Manganese Dust & compounds	16.7	144-62-7	Oxalic acid	3.3
7439-96-5	Manganese Fume	3.3	7783-41-7	Oxygen difluoride	0.3
12079-65-1	Manganese cyclopentadienyl tricarbonyl	0.3	8002-74-2	Parafin wax fume	6.7
7439-97-6	Mercury, Aryl & inorganic compd	0.3	4685-14-7	Paraquat	0.3
7439-97-6	Mercury, as Hg Alkyl compounds	0.03	56-38-2	Parathion	0.3
7439-97-6	Mercury, vapors except alkyl	0.2	19624-22-7	Pentaborane	0.0
141-79-7	Mesityl oxide	199.8	1321-64-8	Pentachloronaphthalene	1.7
79-41-4	Methacrylic acid	233.1	87-86-5	Pentachlorophenol	1.7
16752-77-5	Methomyl	8.3	109-66-0	Pentane	5994.0
72-43-5	Methoxychlor	33.3	594-42-3	Perchloromethyl mercaptan	2.7
109-86-4	2-Methoxyethanol	53.3	7616-94-6	Perchloryl fluoride	46.6
110-49-6	2-Methoxyethyl acetate	79.9	108-95-2	Phenol	63.3
150-76-5	4-Methoxyphenol	16.7	92-84-2	Phenothiazine	16.7
137-05-3	Methyl 2-cyanoacrylate	26.6	101-84-8	Phenyl ether	23.3
79-20-9	Methyl acetate	2031.3	122-60-1	Phenyl glycidyl ether	20.0
74-99-7	Methyl acetylene	5494.5	108-98-5	Phenyl mercaptan	6.7
—	Methyl acetylene-propadiene mixture (MAPP)	5994.0	106-50-3	p-Phenylene diamine	0.3
96-33-3	Methyl acrylate	116.6	100-63-0	Phenylhydrazine	66.6
67-56-1	Methyl alcohol	865.8	638-21-1	Phenylphosphine	0.8
100-61-8	N-Methyl aniline	6.7	298-02-2	Phorate	0.2
74-83-9	Methyl bromide	66.6	75-44-5	Phosgene	1.3
74-87-3	Methyl chloride	349.7	7803-51-2	Phosphine	1.3
71-55-6	Methyl chloroform	6327.0	7664-38-2	Phosphoric acid	3.3
8022-00-2	Methyl demeton	1.7	7723-14-0	Phosphorus	0.3
78-93-3	Methyl ethyl ketone (MEK)	1964.7	10025-87-3	Phosphorus oxychloride	2.0
1338-23-4	Methyl ethyl ketone peroxide	5.0	10026-13-8	Phosphorus pentachloride	3.3
107-31-3	Methyl formate	832.5	1314-80-3	Phosphorus pentasulfide	3.3
60-34-4	Methyl hydrazine	1.2	7719-12-2	Phosphorus trichloride	5.0
74-88-4	Methyl iodide	33.3	85-44-9	Phthalic anhydride	20.0
110-12-3	Methyl isoamyl ketone	799.2	626-17-5	m-Phthalodinitrile	16.7
108-11-2	Methyl isobutyl carbinol	333.0	1918-02-1	Picloram	33.3
108-10-1	Methyl isobutyl ketone (MIBK)	682.7	88-89-1	Picric acid	0.3
624-83-9	Methyl isocyanate	0.2	83-26-1	Pindone	0.3
563-80-4	Methyl isopropyl ketone	2347.7	142-64-3	Piperazine dihydrochloride	16.7
74-93-1	Methyl mercaptan	3.3	7440-06-4	Platinum, Metal	3.3
80-62-6	Methyl methacrylate	1365.3	7440-06-4	Platinum, Soluble salts as Pt	0.0
110-43-0	Methyl n-amyl ketone	782.6	1310-58-3	Potassium hydroxide	6.7
591-78-6	Methyl n-butyl ketone	66.6	107-19-7	Propargyl alcohol	6.7
298-00-0	Methyl parathion	0.7	57-57-8	B-Propiolactone	5.0
107-87-9	Methyl propyl ketone	2331.0	114-26-1	Propoxur	1.7
681-84-5	Methyl silicate	20.0	79-09-4	Propionic acid	99.9
98-83-9	a-Methyl styrene	799.2	109-60-4	n-Propyl acetate	2797.2
126-98-7	Methylacrylonitrile	10.0	71-23-8	Propyl alcohol	1665.0
109-87-5	Methylal	10323.0	627-13-4	n-Propyl nitrate	349.7
74-89-5	Methylamine	40.0	78-87-5	Propylene dichloride	1165.5
108-87-2	Methylcyclohexane	5328.0	6423-43-4	Propylene glycol dinitrate	1.0
25639-42-3	Methylcyclohexanol	782.6	107-98-2	Propylene glycol mono-methyl ether	1198.8
583-60-8	o-Methylcyclohexanone	765.9	75-55-8	Propylene imine	16.7
12108-13-3	Methylcyclopentadienyl manganese tricarbonyl	0.7	8003-34-7	Pyrethrum	16.7
5124-30-1	Methylene bis (4-cyclo-hexylisocyanate)	0.2	110-86-1	Pyridine	50.0
101-68-8	Methylene bisphenyl isocyanate	0.2	106-51-4	Quinone	1.3
101-77-9	4,4'-Methylene dianiline	2.7	108-46-3	Resorcinol	149.9
			7440-16-6	Rhodium Metal	3.3
			7440-16-6	Rhodium, Insoluble compounds	3.3

- 2/19/91, effective 3/22/91. Statutory Authority: Chapter 70.94 RCW.
- 173-490-120 Compliance schedules. [Statutory Authority: RCW 43.21A.080 and 70.94.331. 79-06-011 (Order DE 78-23), § 173-490-120, filed 5/8/79.] Repealed by 91-05-064 (Order 90-06), filed 2/19/91, effective 3/22/91. Statutory Authority: Chapter 70.94 RCW.
- 173-490-130 Regulatory actions. [Statutory Authority: RCW 43.21A.080 and 70.94.331. 79-06-011 (Order DE 78-23), § 173-490-130, filed 5/8/79.] Repealed by 91-05-064 (Order 90-06), filed 2/19/91, effective 3/22/91. Statutory Authority: Chapter 70.94 RCW.
- 173-490-135 Criminal penalties. [Statutory Authority: RCW 43.21A.080 and 70.94.331. 79-06-011 (Order DE 78-23), § 173-490-135, filed 5/8/79.] Repealed by 91-05-064 (Order 90-06), filed 2/19/91, effective 3/22/91. Statutory Authority: Chapter 70.94 RCW.
- 173-490-140 Appeals. [Statutory Authority: RCW 43.21A.080 and 70.94.331. 79-06-011 (Order DE 78-23), § 173-490-140, filed 5/8/79.] Repealed by 91-05-064 (Order 90-06), filed 2/19/91, effective 3/22/91. Statutory Authority: Chapter 70.94 RCW.
- 173-490-150 Variance. [Statutory Authority: RCW 70.94.331 and 70.94.395. 80-11-062 (Order DE 80-18), § 173-490-150, filed 8/20/80. Statutory Authority: RCW 43.21A.080 and 70.94.331. 79-06-011 (Order DE 78-23), § 173-490-150, filed 5/8/79.] Repealed by 91-05-064 (Order 90-06), filed 2/19/91, effective 3/22/91. Statutory Authority: Chapter 70.94 RCW.

WAC 173-490-010 Policy and purpose. (1) It is the policy of the department of ecology (ecology) under the authority vested in it by chapter 43.21A RCW to provide for the systematic control of air pollution from air contaminant sources and for the proper development of the state's natural resources.

(2) It is the purpose of this chapter to establish technically feasible and reasonably attainable standards for sources emitting volatile organic compounds (VOCs) and revise such standards as new information and better technology are developed and become available.

[Statutory Authority: Chapter 70.94 RCW. 91-05-064 (Order 90-06), § 173-490-010, filed 2/19/91, effective 3/22/91. Statutory Authority: RCW 70.94.331 and 70.94.395. 80-11-062 (Order DE 80-18), § 173-490-010, filed 8/20/80. Statutory Authority: RCW 43.21A.080 and 70.94.331. 79-06-011 (Order DE 78-23), § 173-490-010, filed 5/8/79.]

WAC 173-490-020 Definitions. The definitions of terms contained in chapter 173-400 WAC are by this reference incorporated into this chapter. Unless a different meaning is clearly required by context, the following words and phrases, as used in this chapter, shall have the following meanings:

(1) "Bottom loading" means the filling of a tank through a line entering the bottom of the tank.

(2) "Bulk gasoline plant" means a gasoline storage and transfer facility that receives more than ninety percent of its annual gasoline throughput by transport tank, and reloads gasoline into transport tanks.

(3) "Class II hardboard paneling finish" means finishes which meet the specifications of Voluntary Product Standard PS-59-73 as approved by the American National Standards Institute.

(4) "Closed refinery system" means a system that will process or dispose of those VOCs collected from another system. The mass quantity of collected VOCs emitted to

the ambient air from the closed refinery system shall not exceed that required for a disposal system.

(5) "Condensate" means hydrocarbon liquid separated from a gas stream which condenses due to changes in the temperature or pressure and remains liquid at standard conditions.

(6) "Condenser" means a device for cooling a gas stream to a temperature where specific VOCs become liquid and are removed.

(7) "Control system" means one or more control devices, including condensers, that are designed and operated to reduce the quantity of VOCs emitted to the atmosphere.

(8) "Crude oil" means a naturally occurring mixture which consists of hydrocarbons and sulfur, nitrogen or oxygen derivatives of hydrocarbons which is a liquid at standard conditions.

(9) "Cutback asphalt" means an asphalt that has been blended with petroleum distillates to reduce the viscosity for ease of handling and lower application temperature. An inverted emulsified asphalt shall be considered a cutback asphalt when the continuous phase of the emulsion is a cutback asphalt.

(10) "Disposal system" means a process or device that reduces the mass quantity of the VOC that would have been emitted to the ambient air by at least ninety percent prior to their actual emission.

(11) "Dry cleaning facility" means a facility engaged in the cleaning of fabrics in an essentially nonaqueous solvent by means of one or more washes in solvent, extraction of excess solvent by spinning, and drying by tumbling in an airstream. The facility includes, but is not limited to, any washer, dryer, filter and purification system(s), waste disposal system(s), holding tank(s), pump(s) and attendant piping and valve(s).

(12) "External floating roof" means a storage vessel cover in an open top tank consisting of a double deck or pontoon single deck which rests upon and is supported by the liquid being contained and is equipped with a closure seal or seals to close the space between the roof edge and tank wall.

(13) "Flexographic printing" means the application of words, designs and pictures to a substrate by means of a roll printing technique in which the pattern to be applied is raised above the printing roll and the image carrier is made of rubber or other elastomeric materials.

(14) "Gasoline" means a petroleum distillate which is a liquid at standard conditions and has a true vapor pressure greater than 200 mm of Hg (4 psia) at 20°C, and is used as a fuel for internal combustion engines.

(15) "Gasoline dispensing facility" means any site dispensing gasoline into motor vehicle fuel tanks from stationary storage tanks.

(16) "Gasoline loading terminal" means a gasoline transfer facility that receives more than ten percent of its annual gasoline throughput solely or in combination by pipeline, ship or barge, and loads gasoline into transport tanks.

(17) "Hardboard" means a panel manufactured primarily from interfelted lignocellulosic fibers which are consolidated under heat and pressure in a hot press.

(18) "Hardwood plywood" means plywood whose surface layer is a veneer of hardwood.

(19) "Lease custody transfer" means the transfer of produced crude oil or condensate, after processing or treating in the producing operations, from storage tanks or automatic transfer facilities to pipelines or any other forms of transportation.

(20) "Liquid-mounted seal" means a primary seal mounted in continuous contact with the liquid between the tank wall and the floating roof.

(21) "Liquid service" means equipment that processes, transfers or contains a VOC or VOCs in the liquid phase.

(22) "Low organic solvent coating" refers to coatings which contain less organic solvent than the conventional coatings used by the industry. Low organic solvent coatings include water-borne, higher solids, electrodeposition and powder coatings.

(23) "Natural finish hardwood plywood panels" means panels whose original grain pattern is enhanced by essentially transparent finishes frequently supplemented by fillers and toners.

(24) "Packaging rotogravure printing" means rotogravure printing upon paper, paper board, metal foil, plastic film, and other substrates, which are, in subsequent operations, formed into packaging products and labels for articles to be sold.

(25) "Petroleum liquids" means crude oil, condensate, and any finished or intermediate products manufactured or extracted in a petroleum refinery.

(26) "Petroleum refinery" means a facility engaged in producing gasoline, aromatics, kerosene, distillate fuel oils, residual fuel oils, lubricants, asphalt, or other products by distilling crude oils or redistilling, cracking, extracting or reforming unfinished petroleum derivatives. Not included are facilities re-refining used motor oils or waste chemicals, processing finished petroleum products, separating blended products, or air blowing asphalt.

(27) "Prime coat" means the first of two or more films of coating applied in an operation.

(28) "Printed interior panels" means panels whose grain or natural surface is obscured by fillers and basecoats upon which a simulated grain or decorative pattern is printed.

(29) "Proper attachment fittings" means hardware for the attachment of gasoline transfer or vapor collection lines that meet or exceed industrial standards or specifications and the standards of other agencies or institutions responsible for safety and health.

(30) "Publication rotogravure printing" means rotogravure printing upon paper which is subsequently formed into books, magazines, catalogues, brochures, directories, newspaper supplements, and other types of printed materials.

(31) "Refinery unit" means a set of components that are a part of a basic process operation, such as distillation, hydrotreating, cracking or reforming of hydrocarbons.

(32) "Roll printing" means the application of words, designs, and pictures to a substrate usually by means of

a series of hard rubber or steel rolls each with only partial coverage.

(33) "Rotogravure printing" means the application of words, designs, and pictures to a substrate by means of a roll printing technique which involves intaglio or recessed image areas in the form of cells.

(34) "Single coat" means only one film of coating is applied to the metal substrate.

(35) "Submerged fill line" means a pipe, tube, fitting or other hardware for loading liquids into a tank with either a discharge opening flush with the tank bottom; or with a discharge opening below the lowest normal operating drawoff level or that level determined by a liquid depth two and one half times the fill line diameter when measured in the main portion of the tank, but not in sumps or similar protrusions.

(36) "Submerged loading" means the filling of a tank with a submerged fill line descending nearly to the bottom.

(37) "Suitable closure or cover" means a door, hatch, cover, lid, pipe cap, pipe blind, valve or similar device that prevents the accidental spilling or emitting of VOC. Pressure relief valves, aspirator vents or other devices specifically required for safety and fire protection are not included.

(38) "Thin particleboard" means a manufactured board one-quarter inch or less in thickness made of individual wood particles which have been coated with a binder and formed into flat sheets by pressure.

(39) "Tileboard" means paneling that has a colored waterproof surface coating.

(40) "Topcoat" means the final film or series of films of coating applied in a two-coat (or more) operation.

(41) "Transport tank" means a container used for shipping gasoline on land.

(42) "True vapor pressure" means the equilibrium partial pressure of a petroleum liquid as determined with methods described in American Petroleum Institute Bulletin 2517, 1980.

(43) "Unit turnaround" means the procedure of shutting down, repairing, inspecting, and restarting a unit.

(44) "Valves not externally regulated" means valves that have no external controls, such as in-line check valves.

(45) "Vapor collection system" means a closed system to conduct vapors displaced from a tank being filled into the tank being emptied, a vapor holding tank, or a vapor control system.

(46) "Vapor control system" means a system designed and operated to reduce or limit the emission of VOCs, or to recover the VOCs to prevent their emission into the ambient air.

(47) "Vapor-mounted seal" means a primary seal mounted so there is an annular vapor space underneath the seal. The annular vapor space is bounded by the bottom of the primary seal, the tank wall, the liquid surface, and the floating roof.

(48) "Volatile organic compound (VOC)" means any organic compound which participates in atmospheric photochemical reactions; that is, any organic compound other than those which the administrator designates as

having negligible photochemical reactivity. VOC may be measured by a reference method, an equivalent method, an alternative method or by procedures specified under 40 CFR Part 60. A reference method, an equivalent method, or an alternative method, however, may also measure nonreactive organic compounds. In such cases, an owner or operator may exclude the nonreactive organic compounds when determining compliance with a standard.

(49) "Waxy, heavy pour crude oil" means a crude oil with a pour point of 50°F or higher as determined by the American Society for Testing and Materials Standard D97-66, "Test for Pour Point of Petroleum Oils."

[Statutory Authority: Chapter 70.94 RCW, 91-05-064 (Order 90-06), § 173-490-020, filed 2/19/91, effective 3/22/91. Statutory Authority: Chapters 70.94 and 43.21A RCW, 82-16-021 (Order DE 82-22), § 173-490-020, filed 7/27/82. Statutory Authority: RCW 70.94-331, 70.94.510, and 70.94.785, 81-03-003 (Order DE 80-54), § 173-490-020, filed 1/8/81. Statutory Authority: RCW 70.94.331 and 70.94.395, 80-11-062 (Order DE 80-18), § 173-490-020, filed 8/20/80. Statutory Authority: RCW 43.21A.080 and 70.94.331, 79-06-011 (Order DE 78-23), § 173-490-020, filed 5/8/79.]

WAC 173-490-025 General applicability. In addition to the general applicability of chapter 173-400 WAC to all emission sources, specific emission standards listed in this chapter will take precedence over the general emission standards of chapter 173-400 WAC.

(1) This chapter shall apply to the specified emission sources of VOCs located in or operating within designated ozone nonattainment areas of the state of Washington.

(2) This chapter does not apply to those sources under the jurisdiction of the energy facility site evaluation council (EFSEC).

(3) A source of VOC emissions not belonging to any of the categories listed in WAC 173-490-030 nor specifically identified in any section, but which is located on the same or adjacent property and owned or operated by the same person as a regulated emission source, shall not be required to comply with the regulations of this chapter.

(4) Sources of VOC emissions may be exempted, by the director, from any or all requirements to control or reduce the emissions of VOCs when:

(a) The source is a development operation and the equipment is used exclusively for research, laboratory analysis or determination of product quality and commercial acceptance, provided emissions of VOCs from such operations do not exceed 300 kg (660 lbs) per month; or

(b) The source has emissions of VOCs which do not exceed 18 kg (40 lbs) per month and registration is not required under WAC 173-490-030; or

(c) The source is a spray booth which is used solely for maintenance and utility activities and whose emissions do not exceed 18 kg (40 lbs) per month.

(5) Sources of VOCs may be granted exemptions from emissions standards for a period not to exceed thirty days if the source is a newly permitted source which is to replace a similar permitted source and the new source is intended to utilize the existing emission

control system. This provision is intended to apply to a break-in period prior to the shutdown and removal of the existing source.

[Statutory Authority: Chapter 70.94 RCW, 91-05-064 (Order 90-06), § 173-490-025, filed 2/19/91, effective 3/22/91. Statutory Authority: Chapters 70.94 and 43.21A RCW, 82-16-021 (Order DE 82-22), § 173-490-025, filed 7/27/82. Statutory Authority: RCW 70.94-331 and 70.94.395, 80-11-062 (Order DE 80-18), § 173-490-025, filed 8/20/80. Statutory Authority: RCW 43.21A.080 and 70.94.331, 79-06-011 (Order DE 78-23), § 173-490-025, filed 5/8/79.]

WAC 173-490-030 Registration and reporting. (1) The owner or operator of a stationary emission source of VOCs in the following source categories and located in a designated ozone nonattainment area shall register the source with ecology unless registration is required by an authority or the energy facility site evaluation council (EFSEC).

- (a) Petroleum refineries.
- (b) Petroleum liquid storage tanks.
- (c) Gasoline loading terminals.
- (d) Bulk gasoline plants.
- (e) Gasoline dispensing facilities.
- (f) Surface coaters.
- (g) Open top vapor degreasers.
- (h) Conveyorized degreasers.
- (i) Gasoline transport tanks.
- (j) Vapor collection systems.
- (k) Perchloroethylene dry cleaning systems.
- (l) Graphic arts systems.
- (m) Surface coaters of miscellaneous metal parts and products.
- (n) Synthesized pharmaceutical manufacturing facilities.
- (o) Flatwood panel manufacturers and surface finishing facilities.

(2) A new emission source of VOCs that must comply with any requirements in WAC 173-490-040, 173-490-200, 173-490-201, 173-490-202, 173-490-203, 173-490-204, 173-490-205, 173-490-206 and 173-490-207, shall comply with the requirements of WAC 173-400-100 and shall register with ecology or an authority prior to operation of the new source, and shall submit sufficient information to demonstrate that the new source is capable of complying with the requirements in this chapter. An opportunity shall be provided for an inspection of the new source by ecology or local authority inspectors prior to its operation.

[Statutory Authority: Chapter 70.94 RCW, 91-05-064 (Order 90-06), § 173-490-030, filed 2/19/91, effective 3/22/91. Statutory Authority: RCW 70.94.331 and 70.94.395, 80-11-062 (Order DE 80-18), § 173-490-030, filed 8/20/80. Statutory Authority: RCW 43-21A.080 and 70.94.331, 79-06-011 (Order DE 78-23), § 173-490-030, filed 5/8/79.]

WAC 173-490-040 Requirements. To demonstrate compliance with this chapter, refer to WAC 173-400-105.

(1) Petroleum refineries.

This chapter shall apply to all petroleum refineries with a crude oil or feed stock capacity greater than one million four hundred thirty thousand liters (9,000 bbl) per day.

(a) Vacuum producing system.

(i) Noncondensable VOC from vacuum producing systems shall be piped to an appropriate firebox, incinerator or to a closed refinery system.

(ii) Hot wells associated with contact condensers shall be tightly covered and the collected VOC introduced into a closed refinery system.

(b) Wastewater separator.

(i) Wastewater separator forebays shall incorporate a floating pontoon or fixed solid cover with all openings sealed, totally enclosing the compartmented liquid contents, or a floating pontoon or a double deck-type cover equipped with closure seals between the cover edge and compartment wall.

(ii) Accesses for gauging and sampling shall be designed to minimize VOC emissions during actual use. All access points shall be closed with suitable covers when not in use.

(c) Process unit turnaround.

(i) The VOC contained in a process unit to be depressurized for turnaround shall be introduced to a closed refinery system, combusted by a flare, or vented to a disposal system.

(ii) The pressure in a process unit following depressurization for turnaround shall be less than five psig before venting to the ambient air.

(iii) Venting or depressurization to the ambient air of a process unit for turnaround at a pressure greater than five psig shall be allowed if the owner demonstrates the actual emission of VOC to the ambient air is less than permitted by WAC 173-490-040 (1)(c)(ii).

(d) Maintenance and operation of emission control equipment. Equipment for the reduction, collection or disposal of VOC shall be maintained and operated in a manner consistent with the level of maintenance and housekeeping of the overall plant.

(2) Petroleum liquid storage tanks.

(a) All fixed-roof tanks (except as noted in subparagraph (d) of this subsection) storing volatile organic petroleum liquids with a true vapor pressure as stored greater than 78 mm of Hg (1.5 psi) at actual monthly average storage temperatures and having a capacity greater than one hundred fifty thousand liters (40,000 gallons) shall comply with one of the following:

(i) Meet the equipment specifications and maintenance requirements of the federal standards of performance for new stationary sources - Storage Vessels for Petroleum Liquids (40 CFR 60, subpart K); or

(ii) Be retrofitted with a floating roof or internal floating cover using a metallic seal or a nonmetallic resilient seal at least meeting the equipment specifications of the federal standards referred to in WAC 173-490-040 (2)(a)(i) or its equivalent; or

(iii) Be fitted with a floating roof or internal floating cover meeting the manufacturer's specifications in effect when installed.

(b) All seals used in WAC 173-490-040 (2)(a)(ii) and (iii) are to be maintained in good operating condition and the seal fabric shall contain no visible holes, tears or other openings.

(c) All openings not related to safety are to be sealed with suitable closures.

(d) Tanks used for the storage of gasoline in bulk gasoline plants and equipped with vapor balance systems as required in WAC 173-490-040 (4)(b) shall be exempt from the requirements of WAC 173-490-040(2).

(3) Gasoline loading terminals.

(a) This chapter shall apply to all gasoline loading terminals with an average annual daily gasoline throughput greater than seventy-five thousand liters (20,000 gallons).

(b) Loading facilities. Facilities for the purpose of loading gasoline into any transport tank shall be equipped with a vapor recovery system (VRS) as described in WAC 173-490-040 (3)(c) and comply with the following conditions:

(i) The loading facility shall employ submerged or bottom loading for all transport tanks.

(ii) The VRS shall be connected to the transport tank being loaded and shall operate during the entire loading of every transport tank loaded at the facility.

(iii) The loading of all transport tanks shall be performed such that ninety percent by weight of the gasoline vapors displaced during filling are prevented from being released to the ambient air. Emissions from pressure relief valves shall not be included in the controlled emissions when the back pressure in the VRS collection lines is lower than the relief pressure setting of the transport tank's relief valves.

(iv) All loading lines and vapor lines shall be equipped to close automatically upon disconnect. The point of closure shall be on the tank side of any hose or intermediate connecting line.

(c) Vapor recovery system (VRS). The VRS shall be designed and built according to accepted industrial practices and meet the following conditions:

(i) The VRS shall prevent at least ninety percent by weight of the gasoline vapors displaced during loading of each transport tank from entering the ambient air and in no case shall the gasoline vapors emitted to the ambient air exceed eighty milligrams per liter of gasoline loaded.

(ii) The VRS shall be equipped with a signal device to alert personnel when the system is not operating or unintentionally shuts down.

(iii) The back pressure in the VRS collection lines shall not exceed the transport tank's pressure relief settings.

(d) Alternative loading facility. The loading of transport tanks by other means and using other vapor control systems shall require the facility owner to demonstrate that the emission of gasoline vapors to the ambient air is less than eighty milligrams per liter of gasoline loaded.

(4) Bulk gasoline plants.

(a) This chapter shall apply to all bulk gasoline plants with an annual average daily gasoline throughput greater than fifteen thousand liters (4,000 gallons).

(b) Storage tanks. All storage tanks with a capacity greater than two thousand one hundred liters (550 gallons) and used for the storage of gasoline shall comply with the following conditions:

(i) Each storage tank shall be equipped with a submerged fill line.

(ii) Each storage tank shall be equipped for vapor balancing of gasoline vapors with transport tanks during gasoline transfer operations.

(iii) The vapor line fittings on the storage tank side of break points with the transport tank vapor connection pipe or hose shall be equipped to close automatically upon planned or unintentional disconnect.

(iv) The pressure relief valves on storage tanks shall be set at the highest possible pressure consistent with local and state codes for fire and safety.

(c) Transport tanks. All transport tanks, except those meeting the conditions in WAC 173-490-040 (4)(d), transferring gasoline with storage tanks in a bulk gasoline plant shall comply with the following conditions:

(i) The transport tank shall be equipped with the proper attachment fittings to make vapor tight connections for vapor balancing with storage tanks.

(ii) The vapor line fittings on the transport tank side of break points with the storage tank connection pipe or hose shall be equipped to close automatically upon planned or unintentional disconnect.

(iii) The pressure relief valves on transport tanks shall be set at the highest possible pressure consistent with local and state codes for fire and safety.

(d) Transport tanks used for gasoline and meeting all of the following conditions shall be exempt from the requirement to be equipped with any attachment fitting for vapor balance lines:

(i) The transport tank is used exclusively for the delivery of gasoline into storage tanks of a facility exempt from the vapor balance requirements of WAC 173-490-040(5); and

(ii) The transport tank has a total capacity less than fifteen thousand liters (4,000 gallons) and is of a compartmented design and construction requiring the installation of four or more separate vapor balance fittings.

(e) Gasoline transfer operations. No owner or operator of a bulk gasoline plant or transport tank shall allow the transfer of gasoline between a transport tank and a storage tank except under the following conditions:

(i) All tanks shall be submerged filled or bottom loaded.

(ii) The loading of all tanks, except those exempted under WAC 173-490-040 (4)(d) shall be performed such that ninety percent by weight of the gasoline vapors displaced during filling are prevented from being released into the ambient air. Emissions from pressure relief valves shall not be included in the controlled emissions.

(f) Equipment or system failures. Failures or leaks in the vapor balance system shall be limited by the following conditions:

(i) During the months of April, May, June, July, August, September and October, failures of the vapor balance system to comply with this chapter shall require that gasoline transfer operations stop for the failed part of the system. Other transfer points that can operate in compliance may be used.

(ii) Loading or unloading of the transport tank connected to the failed part of the vapor balance system may be completed.

(iii) Breakdowns and upset conditions during all months of the year shall also comply with the provisions of WAC 173-400-105(5).

(g) The owner or operator of a bulk gasoline plant or transport tank shall take all reasonable necessary measures to prevent the spilling, discarding in sewers, storing in open containers or handling of gasoline in a manner on the plant site that will result in evaporation to the ambient air.

(5) Gasoline dispensing facilities (Stage I).

(a) This chapter shall apply to all gasoline dispensing facilities with a total annual gasoline output greater than seven hundred fifty-seven thousand liters (200,000 gallons) or sixty-three thousand one hundred liters (16,670 gallons) per month and total gasoline storage capacity greater than thirty-eight thousand liters (10,000 gallons).

(b) All gasoline storage tanks of the facilities defined in WAC 173-490-040 (5)(a) shall be equipped with submerged or bottom fill lines and fittings for vapor balancing gasoline vapors with the delivery transport tank.

(c) Gasoline storage tanks with offset fill lines shall be exempt from the requirement of WAC 173-490-040 (5)(b) if installed prior to January 1, 1979.

(d) The vapor balance system (for the purpose of measuring compliance with the emission control efficiency) shall consist of the transport tank, gasoline vapor transfer lines, storage tank and all tank vents. The vapor balance system shall prevent at least ninety percent of the displaced gasoline vapors from entering the ambient air. A vapor balance system that is designed, built and operated according to accepted industrial practices will satisfy this requirement.

(e) The owner or operator of a gasoline dispensing facility shall not permit the loading of gasoline into a storage tank equipped with vapor balance fittings unless the vapor balance system is attached to the transport tank and operated satisfactorily.

(6) Surface coaters.

The operation of a coater and dryer, that may serve one or more process lines, shall comply with the following emission limits if the potential uncontrolled emissions of VOC from the coater, flashoff areas, and dryer would be greater than 18 kg (40 pounds) in any given twenty-four hour period. The emission limits and uncontrolled emission quantity shall include the additional quantity of emissions from the dryer during the twelve hour period after application of the coating.

Process	Limitation Grams/Liter of Coating (Excluding Water)	lb/Gal.of Coating (Excluding Water)
Can Coating		
Sheet basecoat and overvarnish; two-piece can exterior	340	2.8
Two and three piece can interior body spray, two piece can exterior end	510	4.2

Process Can Coating	Limitation Grams/Liter of Coating (Excluding Water)	lb/Gal. of Coating (Excluding Water)
Side-seam spray	660	5.5
End sealing compound	440	3.7
Coil coating	310	2.6
Fabric coating	350	2.9
Vinyl coating	450	3.8
Paper coating	350	2.9
Auto and light duty truck coating		
Prime	230	1.9
Topcoat	340	2.8
Repair	580	4.8
Metal furniture coating	360	3.0
Magnet wire coating	200	1.7
Large appliance coating	340	2.8

(7) Open top vapor degreasers.

(a) All open top vapor degreasers shall:

(i) Have a cover that may be readily opened and closed. When a degreaser is equipped with a lip exhaust, the cover shall be located below the lip exhaust. When a degreaser has a freeboard ratio equal to or greater than 0.75 and the opening is greater than one square meter (10 square feet) the cover shall be power operated.

(ii) Have one of the following:

(A) A freeboard ratio equal to or greater than 0.75; or

(B) A freeboard chiller; or

(C) A closed design such that the cover opens only when the part enters or exits the degreaser.

(iii) Be equipped with at least the following three safety switches:

(A) Condenser-flow switch and thermostat (shuts off sump heat if coolant is either not circulating or too warm); and

(B) Spray safety switch (shuts off spray pump if the vapor level drops excessively); and

(C) Vapor level control thermostat (shuts off sump heat when vapor level rises too high).

(iv) Post a permanent and conspicuous pictograph or instructions clearly explaining the following work practices:

(A) Do not degrease porous or absorbent materials such as cloth, leather, wood or rope.

(B) The cover of the degreaser should be closed at all times except when processing workloads.

(C) When the cover is open the lip of the degreaser should not be exposed to steady drafts greater than 15.3 meters per minute (50 feet per minute).

(D) Rack parts so as to facilitate solvent drainage from the parts.

(E) Workloads should not occupy more than one-half of the vapor-air interface area.

(F) When using a powered hoist, the vertical speed of parts in and out of the vapor zone should be less than 3.35 meters per minute (11 feet per minute).

(G) Degrease the workload in the vapor zone until condensation ceases.

(H) Spraying operations should be done within the vapor layer.

(I) Hold parts in the degreaser until visually dry.

(J) When equipped with a lip exhaust, the fan should be turned off when the cover is closed.

(K) The condenser water shall be turned on before the sump heater when starting up a cold vapor degreaser. The sump heater shall be turned off and the solvent vapor layer allowed to collapse before closing the condenser water when shutting down a hot vapor degreaser.

(L) Water shall not be visible in the solvent stream from the water separator.

(b) A routine inspection and maintenance program shall be implemented for the purpose of preventing and correcting solvent losses. For example, leaks from drain taps, cracked gaskets, and malfunctioning equipment must be repaired immediately.

(c) Sump drainage and transfer of hot or warm solvent shall be carried out using threaded or other leak-proof couplings.

(d) Still and sump bottoms shall be kept in closed containers.

(e) Waste solvent shall be stored in covered containers and returned to the supplier or to a firm which processes solvents for disposal.

(8) Conveyorized degreasers.

(a) The owner or operator of conveyorized cold cleaners and conveyorized vapor degreasers shall comply with the following operating requirements:

(i) Exhaust ventilation shall not exceed twenty cubic meters per minute per square meter (65 cfm per ft.²) of degreaser opening, unless necessary to meet OSHA requirements.

(ii) Post in the immediate work area a permanent and conspicuous pictograph or instructions clearly explaining the following work practices:

(A) Rack parts for best drainage.

(B) Maintain vertical speed of conveyed parts to less than 3.35 meters per minute (11 feet per minute).

(C) The condenser water shall be turned on before the sump heater when starting up a cold vapor degreaser. The sump heater shall be turned off and the solvent vapor layer allowed to collapse before closing the condenser water when shutting down a hot vapor degreaser.

(D) Water shall not be visible in the solvent stream from the water separator.

(iii) Vapor degreasers shall be equipped with at least the following three safety switches:

(A) Condenser flow switch and thermostat (shuts off sump heat if coolant is either not circulating or too warm); and

(B) Spray safety switch (shuts off spray pump if the vapor level drops excessively); and

(C) Vapor level control thermostat (shuts off sump heat when vapor level rises too high).

(b) A routine inspection and maintenance program shall be implemented for the purpose of preventing and correcting solvent losses. For example, leaks from drain taps, cracked gaskets, and malfunctioning equipment must be repaired immediately.

(c) Sump drainage and transfer of hot or warm solvent shall be carried out using threaded or other leak-proof couplings.

(d) Still and sump bottoms shall be kept in closed containers.

(e) Waste solvent shall be stored in covered containers and returned to the supplier or to a firm which processes solvents for disposal.

(f) All conveyORIZED cold cleaners and conveyORIZED vapor degreasers with air/vapor interfaces of 2.0 m² or greater shall have a carbon adsorption system, exhausting less than 25 ppm of solvent averaged over a complete adsorption cycle (based on exhaust ventilation of 15 m³ per min per m² of air/vapor area, when downtime covers are open), or a system with control effectiveness equal to or better than a carbon adsorption system.

(9) Cutback asphalt paving.

(a) All paving applications of cutback asphalts are prohibited during the months of April, May, June, July, August, September and October, except as provided for in WAC 173-490-040 (9)(b).

(b) The following paving uses and applications of cutback asphalts are permitted during all months of the year.

(i) As a penetrating prime coat on aggregate bases prior to paving.

(ii) The manufacture of patching mixes used exclusively for pavement maintenance and needed to be stockpiled for times longer than one month.

(iii) All paving uses when the temperature during application is below 10°C (50°F). Any person using cutback asphalt for paving shall demonstrate that the ambient air temperature at 8 a.m. (PST) is below 50°F. The paving application of cutback asphalt when the ambient air temperature is 50°F or higher is in violation of this chapter.

(10) Cold cleaners.

(a) The owners or operators of all cold cleaners shall comply with the following equipment specifications:

(i) Be equipped with a cover that is readily opened and closed.

(ii) Be equipped with a drain rack that returns the drained solvent to the solvent bath.

(iii) Have a freeboard ratio of at least 0.5.

(iv) Have a visible fill line.

(b) An owner or operator of a cold cleaner shall be responsible for following the required operating parameters and work practices. The owner shall post and maintain in the work area of each cold cleaner a pictograph or instructions clearly explaining the following work practices:

(i) The solvent level shall not be above the fill line.

(ii) The spraying of parts to be cleaned shall be performed only within the confines of the cold cleaner.

(iii) The cover of the cold cleaner shall be closed when not in use or when parts are being soaked or cleaned by solvent agitation.

(iv) Solvent-cleaned parts shall be rotated to drain cavities or blind holes and then set to drain until dripping has stopped.

(v) Waste solvent shall be stored in covered containers and returned to the supplier or to a firm which processes solvents for disposal.

(c) The owner or operator shall maintain cold cleaners in good working condition and free of solvent leaks.

(d) If the solvent has a vapor pressure greater than 2.0 kPa (0.3 psi) measured at 38°C (100°F), or if the solvent is agitated or heated, then the cover must be designed so that it can be easily operated with one hand.

(e) If the solvent has a vapor pressure greater than 4.3 kPa (0.6 psi) measured at 38°C (100°F), then the drainage facility must be internal, so that parts are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.

(f) If the solvent has a vapor pressure greater than 4.3 kPa (0.6 psi) measured at 38°C (100°F), or if the solvent is heated above 50°C (120°F), one of the following solvent vapor control systems must be used:

(i) The freeboard ratio must be equal to or greater than 0.70; or

(ii) Water must be kept over the solvent. The solvent must be more dense and insoluble in water.

[Statutory Authority: Chapter 70.94 RCW. 91-05-064 (Order 90-06), § 173-490-040, filed 2/19/91, effective 3/22/91. Statutory Authority: Chapters 70.94 and 43.21A RCW. 82-16-021 (Order DE 82-22), § 173-490-040, filed 7/27/82. Statutory Authority: RCW 70.94-.331, 70.94.510, and 70.94.785. 81-03-003 (Order DE 80-54), § 173-490-040, filed 1/8/81. Statutory Authority: RCW 70.94.331 and 70.94.395. 80-11-062 (Order DE 80-18), § 173-490-040, filed 8/20/80. Statutory Authority: RCW 43.21A.080 and 70.94.331. 79-06-011 (Order DE 78-23), § 173-490-040, filed 5/8/79.]

WAC 173-490-070 Repealed. See Disposition Table at beginning of this chapter.

WAC 173-490-071 Repealed. See Disposition Table at beginning of this chapter.

WAC 173-490-080 Exceptions and alternative methods. (1) Other emission reduction methods may be used if the source operator demonstrates to ecology that they are at least as effective as the required methods; and

(2) The operation of a natural gas-fired incinerator and associated capture system installed for the purpose of complying with this chapter shall be required only during the months of April, May, June, July, August, September and October, unless the operation of such devices is required for purposes of occupational health or safety, or for the control of toxic substances, malodors, or other regulated pollutants.

[Statutory Authority: Chapter 70.94 RCW. 91-05-064 (Order 90-06), § 173-490-080, filed 2/19/91, effective 3/22/91. Statutory Authority: Chapters 70.94 and 43.21A RCW. 82-16-021 (Order DE 82-22), § 173-490-080, filed 7/27/82. Statutory Authority: RCW 70.94-.331 and 70.94.395. 80-11-062 (Order DE 80-18), § 173-490-080,

filed 8/20/80. Statutory Authority: RCW 43.21A.080 and 70.94.331. 79-06-011 (Order DE 78-23), § 173-490-080, filed 5/8/79.]

WAC 173-490-090 New source review. The provisions of WAC 173-400-110 shall apply to all new sources and emissions units to which this chapter is applicable.

[Statutory Authority: Chapter 70.94 RCW. 91-05-064 (Order 90-06), § 173-490-090, filed 2/19/91, effective 3/22/91. Statutory Authority: RCW 43.21A.080 and 70.94.331. 79-06-011 (Order DE 78-23), § 173-490-090, filed 5/8/79.]

WAC 173-490-120 Repealed. See Disposition Table at beginning of this chapter.

WAC 173-490-130 Repealed. See Disposition Table at beginning of this chapter.

WAC 173-490-135 Repealed. See Disposition Table at beginning of this chapter.

WAC 173-490-140 Repealed. See Disposition Table at beginning of this chapter.

WAC 173-490-150 Repealed. See Disposition Table at beginning of this chapter.

WAC 173-490-200 Petroleum refinery equipment leaks. (1) Specific applicability. This section shall apply to all petroleum refineries as qualified in WAC 173-490-025.

(2) Provisions for specific processes.

(a) The owner(s) or operator(s) of a petroleum refinery shall:

(i) Develop and conduct a monitoring program consistent with the provisions in WAC 173-490-200(3), 173-490-200(4), 173-490-200(5), and 173-400-105;

(ii) Record all leaking components which have a VOC concentration greater than 10,000 ppm when tested according to the provisions in WAC 173-490-200(3) and place an identification tag on each component consistent with the provisions of WAC 173-490-200 (4)(c);

(iii) Correct and retest the leaking component, as defined in WAC 173-490-200 (2)(a)(ii), as soon as practicable, but not later than fifteen days after the leak is recorded. If a leak continues after all reasonable corrective actions have been taken, then the component shall be repaired or replaced on the next scheduled turnaround.

(iv) Identify all leaking components, as defined in WAC 173-490-200 (2)(a)(ii), that cannot be corrected until the refinery unit is shut down for turnaround.

(b) The owner or operator of a petroleum refinery shall not install or operate a valve at the end of a pipe or line containing VOC unless the pipe or line is sealed with a second suitable closure. Exceptions to this requirement are the ends of a pipe or line connected to pressure relief valves, aspirator vents or other devices specifically required to be open for safety protection. The sealing device may be removed only when a sample is being taken or during maintenance operations.

(3) Testing procedures. To demonstrate compliance with this chapter, refer to WAC 173-400-105(5).

(4) Monitoring.

(a) The owner or operator of a petroleum refinery shall conduct a monitoring program consistent with the following provisions:

(i) Monitor yearly by the methods referenced in WAC 173-490-200(3) all pump seals, pipeline valves in liquid service and process drains;

(ii) Monitor quarterly by the methods referenced in WAC 173-490-200(3) all compressor seals, pipeline valves in gaseous service and pressure relief valves in gaseous service;

(iii) Monitor weekly by visual methods all pump seals;

(iv) Monitor immediately any pump seal from which liquids are observed leaking;

(v) Monitor any relief valve within twenty-four hours after it has vented to the atmosphere; and

(vi) After a leaking component is repaired, monitor for leaks prior to return to service.

(b) Pressure relief devices that are connected to an operating flare header, vapor recovery device, inaccessible valves, storage tank valves, and valves that are not externally regulated are exempt from the monitoring requirements in WAC 173-490-200 (4)(a).

(c) The owner or operator of a petroleum refinery, upon the detection of a leaking component, as defined in WAC 173-490-200 (2)(a)(ii), shall affix a weather-proof and readily visible tag, bearing an identification number and the date the leak is located, to the leaking component. This tag shall remain in place until the leak is corrected.

(5) Recordkeeping.

(a) The owner or operator of a petroleum refinery shall maintain a leaking component's monitoring log as specified in WAC 173-490-200 (2)(a)(ii) that shall contain, at a minimum, the following data:

(i) The name of the process unit where the component is located.

(ii) The type of component (e.g., valve, seal).

(iii) The tag number of the component.

(iv) The date on which a leaking component is discovered.

(v) The date on which a leaking component is repaired.

(vi) The date and instrument reading of the recheck procedure after a leaking component is repaired.

(vii) A record of the calibration of the monitoring instrument.

(viii) Those leaks that cannot be repaired until turnaround.

(ix) The total number of components checked and the total number of components found leaking.

(b) Copies of the monitoring log shall be retained by the owner or operator for a minimum of two years after the date on which the record was made or the report prepared.

(c) Copies of the monitoring log shall immediately be made available to ecology, upon verbal or written request, at any reasonable time.

(6) Reporting. The owner or operator of a petroleum refinery shall notify ecology in writing within forty-five days following each quarterly or annual inspection for component leaks when:

(a) The number of discovered leaks has increased by more than ten percent above the number recorded during the last inspection of the same components;

(b) The number of leaking components has increased for two consecutive quarterly or annual inspections;

(c) The number of leaks not corrected within fifteen days exceeds five percent of the leaks detected;

(d) The next scheduled process unit turnaround needed to repair an uncorrectable leak is more than twelve months away.

(7) Petition for alternative monitoring.

(a) After two complete liquid service inspections and five complete gaseous service inspections, the owner or operator of a petroleum refinery may petition the director for alternative monitoring procedures or a reduction in monitoring frequency.

(b) A petition for alternative monitoring procedures shall contain:

(i) The name and address of the company and the name and telephone number of the responsible person over whose signature the petition is submitted;

(ii) A detailed description of the problems encountered under WAC 173-490-200(4); and

(iii) A detailed description of the alternative monitoring procedures and how this alternative procedure will solve or reduce the problems encountered under WAC 173-490-200(4).

(c) A petition for a reduction in monitoring frequency shall contain:

(i) The information requested in WAC 173-490-200 (7)(b)(i);

(ii) A detailed description of the proposed component-monitoring schedule;

(iii) A demonstration by the owner or operator that the facility is currently operating with a low level of component leaks and is committed to a maintenance program that will assure a frequency and severity of component leaks as good as that attainable under WAC 173-490-200(2).

(d) An approved petition for a reduction in monitoring frequency shall begin with the next quarterly inspection and shall be valid for a period of twelve quarters (three years). At the time of the last inspection in the twelve quarters, a new submittal of the information required in WAC 173-490-200 (7)(c) shall be made if the reduced frequency of monitoring is to continue.

(e) Ecology may approve a part or all of a petition for alternative monitoring requested under WAC 173-490-200 (7)(b) or (c). Approval or disapproval will be in writing and within forty-five calendar days of receipt of the petition by ecology. A failure to approve or disapprove a new petition or petition for renewal within the stated time limit shall be taken as an approval.

[Statutory Authority: Chapter 70.94 RCW. 91-05-064 (Order 90-06), § 173-490-200, filed 2/19/91, effective 3/22/91. Statutory Authority: RCW 70.94.331 and 70.94.395. 80-11-062 (Order DE 80-18), § 173-490-200, filed 8/20/80.]

WAC 173-490-201 Petroleum liquid storage in external floating roof tanks. (1) Specific applicability.

(a) This section shall apply to all petroleum liquid storage vessels equipped with external floating roofs, having capacities greater than 150,000 liters (40,000 gallons), and as qualified in WAC 173-490-025.

(b) This section does not apply to petroleum liquid storage vessels that:

(i) Are used to store waxy, heavy pour crude oil; or

(ii) Have capacities less than 1,600,000 liters (420,000 gallons) and are used to store produced crude oil and condensate prior to lease custody transfer; or

(iii) Contain a petroleum liquid with a true vapor pressure of less than 10.5 kPa (1.5 psia); or

(iv) Contain a petroleum liquid with a true vapor pressure less than 27.6 kPa (4.0 psia); are of welded construction; and presently possess a metallic-type shoe seal, a liquid-mounted foam seal, a liquid-mounted liquid filled type seal, or other closure device of demonstrated equivalence approved by ecology; or

(v) Are of welded construction, equipped with a metallic-type shoe primary seal and have secondary seal from the top of the shoe seal to the tank wall (shoe-mounted secondary seal).

(2) Provisions for specific processes.

(a) No owner(s) or operator(s) of a petroleum liquid storage vessel shall store a petroleum liquid in that vessel unless:

(i) The vessel has been fitted with:

(A) A continuous secondary seal extending from the floating roof to the tank wall (rim-mounted secondary seal); or

(B) A closure or other device which controls VOC emissions with an effectiveness equal to or greater than a seal required under WAC 173-490-201 (2)(a)(i)(A) and approved by ecology.

(ii) All seal closure devices meet the following requirements:

(A) There are no visible holes, tears, or other openings in the seal or seal fabric;

(B) The seal is intact and uniformly in place around the circumference of the floating roof between the floating roof and the tank wall; and

(C) For vapor mounted primary seals, the accumulated area of gaps exceeding 0.32 cm (1/8 inch) in width between the secondary seal and the tank wall shall not exceed 21.2 cm² per meter of tank diameter (1.0 in.² per foot of tank diameter), as determined by the method in WAC 173-490-201(3).

(iii) All openings in the external floating roof, except for automatic bleeder vents, rim space vents, and leg sleeves, are:

(A) Equipped with covers, seals, or lids in the closed position except when the openings are in actual use; and

(B) Equipped with projections into the tank which remain below the liquid surface at all times.

(iv) Automatic bleeder vents are closed at all times except when the roof is floated off or landed on the roof leg supports;

(v) Rim vents are set to open when the roof is being floated off the leg supports or at the manufacturer's recommended setting; and

(vi) Emergency roof drains are provided with slotted membrane fabric covers or equivalent covers which cover at least ninety percent of the area of the opening.

(b) The owner(s) or operator(s) of a petroleum liquid storage vessel with an external floating roof subject to this chapter shall:

(i) Perform routine inspections annually in order to insure compliance with WAC 173-490-201 (2)(a) and the inspection shall include a visual inspection of the secondary seal gap;

(ii) Measure the secondary seal gap annually in accordance with WAC 173-490-201(3) when the floating roof is equipped with a vapor-mounted primary seal; and

(iii) Maintain records of the types of volatile petroleum liquids stored, the maximum true vapor pressure of the liquid as stored, and the results of the inspections performed in WAC 173-490-201 (2)(b)(i) and (ii).

(c) The owner(s) or operator(s) of a petroleum liquid storage vessel with an external floating roof exempted from this chapter by WAC 173-490-201 (1)(b)(iii), but containing a petroleum liquid with a true vapor pressure greater than 7.0 kPa (1.0 psi), shall maintain records of the average monthly storage temperature, the type of liquid, and the maximum true vapor pressure for all petroleum liquids with a true vapor pressure greater than 7.0 kPa.

(d) Copies of all records under WAC 173-490-201 (2)(b) and (c) shall be retained by the owner(s) or operator(s) for a minimum of two years after the date on which the record was made.

(e) Copies of all records required under WAC 173-490-201 shall immediately be made available to the director, upon verbal or written request, at any reasonable time.

(3) Testing and monitoring.

(a) The owner or operator of a storage vessel covered under WAC 173-490-201 shall demonstrate compliance by the methods of this subsection or an alternative method approved by ecology.

(b) A person proposing to measure the seal fit of a storage vessel in order to comply with this section shall notify ecology of the intent to measure not less than five working days before the measurement so the director or a representative may observe the measurement if desired.

(c) Compliance with WAC 173-490-201 (2)(a)(ii)(C) shall be determined by physically measuring the length and width of all gaps around the circumference of the secondary seal in each place where a 0.32 cm (1/8 in.) diameter probe passes freely (without forcing or binding against the seal) between the seal and the tank wall and summing the area of the individual gaps.

[Statutory Authority: Chapter 70.94 RCW. 91-05-064 (Order 90-06), § 173-490-201, filed 2/19/91, effective 3/22/91. Statutory Authority: RCW 70.94.331 and 70.94.395. 80-11-062 (Order DE 80-18), § 173-490-201, filed 8/20/80.]

WAC 173-490-202 Leaks from gasoline transport tanks and vapor collection systems. (1) Specific applicability.

This section shall apply to all gasoline transport tanks equipped for gasoline vapor collection and all vapor collection systems at gasoline loading terminals, bulk gasoline plants and gasoline dispensing facilities as qualified in WAC 173-490-025 and 173-490-040.

(2) Provisions for specific processes.

(a) The owner(s) or operator(s) of a gasoline loading or unloading facility shall only allow the transfer of gasoline between the facility and a transport tank when a current leak test certification for the transport tank is on file with the facility or a valid inspection sticker is displayed on the vehicle.

(b) The owner(s) or operator(s) of a transport tank shall not make any connection to the tank for the purpose of loading or unloading gasoline, except in the case of an emergency, unless the gasoline transport tank:

(i) Is tested annually according to the test procedure referenced in WAC 173-490-202 (3)(c);

(ii) Sustains a pressure change of no more than 0.75 kilopascals (3 inches of water) in five minutes when pressurized to a gauge pressure of 4.5 kilopascals (18 inches of water) or evacuated to a gauge pressure of 1.5 kilopascals (6 inches of water) during the testing required in WAC 173-490-202 (2)(b)(i);

(iii) Is repaired by the owner(s) or operator(s) and retested within fifteen days of testing if it does not meet the criteria of WAC 173-490-202 (2)(b)(ii);

(c) The owner(s) or operator(s) of a transport tank shall:

(i) Have a current leak test certification for the transport tank on file with each gasoline loading or unloading facility where gasoline is transferred; or

(ii) Display a sticker near the department of transportation certification plate required by 49 CFR 178.340-10b which:

(A) Shows the date that the gasoline tank truck last passed the test required in WAC 173-490-202 (2)(b)(i) and (ii);

(B) Shows the identification number of the gasoline tank truck; and

(C) Expires not more than one year from the date of the leak tight test.

(d) The owner(s) or operator(s) of a vapor collection system shall:

(i) Operate the vapor collection system and the gasoline loading equipment during all loadings and unloadings of transport tanks equipped for emission control such that:

(A) A gauge reading of tank pressure will not exceed 4.5 kilopascals (18 inches of water) or vacuum 1.5 kilopascals (6 inches of water);

(B) The concentration of gasoline vapors is below the lower explosive limit (LEL, measured as propane) at all points a distance of 2.5 cm (1 inch) from potential leak sources when measured by the method in WAC 173-490-202(3); and

(C) There are no visible liquid leaks.

(ii) Repair and retest a vapor collection system that exceeds the limits of WAC 173-490-202 (2)(d)(i) within fifteen days.

(c) Ecology may, at any time, monitor a gasoline transport tank and vapor collection system during loading or unloading operations by the procedure in WAC 173-490-202 (3)(d) to confirm continuing compliance with WAC 173-490-202 (2)(b) or (d).

(3) Testing and monitoring.

(a) The owner(s) or operator(s) of a gasoline transport tank or vapor collection system shall, at his own expense, demonstrate compliance with WAC 173-490-202 (2)(a) and (b), respectively. All tests shall be made by, or under the direction of, a person qualified to perform the tests.

(b) The owner(s) or operator(s) of a gasoline transport tank shall notify ecology in writing of the date and location of a certification test at least ten calendar days before the anticipated test date.

(c) To demonstrate compliance with this chapter, refer to WAC 173-400-105.

(d) Monitoring to confirm the continuing existence of leak tight conditions shall be consistent with the procedures on file with and approved by ecology.

(4) Recordkeeping.

(a) The owner(s) or operator(s) of a gasoline transport tank or vapor collection system shall maintain records of all certification tests and repairs for at least two years after the test or repair is completed.

(b) The records of certification tests required by WAC 173-490-202 (4)(a) shall, as a minimum, contain:

(i) The transport tank identification number;

(ii) The initial test pressure and the time of the reading;

(iii) The final test pressure and the time of the reading;

(iv) The initial test vacuum and the time of the reading;

(v) The final test vacuum and the time of the reading;

(vi) At the top of each report page, the company name, date and location of the tests on that page; and

(vii) Name and title of the person conducting the test.

(c) The owner(s) or operator(s) of a gasoline transport tank shall annually certify that the transport tank passed the required tests.

(d) Copies of all records required under WAC 173-490-202 shall immediately be made available to ecology, upon written request, at any reasonable time.

[Statutory Authority: Chapter 70.94 RCW. 91-05-064 (Order 90-06), § 173-490-202, filed 2/19/91, effective 3/22/91. Statutory Authority: RCW 70.94.331 and 70.94.395. 80-11-062 (Order DE 80-18), § 173-490-202, filed 8/20/80.]

WAC 173-490-203 Perchloroethylene dry cleaning systems. (1) Specific applicability. This section shall apply to all dry cleaning systems using perchloroethylene cleaning solvent and as qualified in WAC 173-490-203 (1)(a) and (b) and 173-490-025.

(a) The following dry cleaning systems are exempt from the requirements of WAC 173-490-203 (2)(a)(i) and (ii):

(i) Coin-operated systems;

(ii) Systems located in a facility with inadequate space to accommodate an adsorber;

(iii) Systems with insufficient steam capacity to desorb adsorbers.

(b) An exemption for the conditions stated in WAC 173-490-203 (2)(a)(i) and (ii) may be granted by ecology when sufficient evidence is submitted by the owner(s) or operator(s) of the dry cleaning system to justify the exemption.

(c) A material balance will be used to determine VOC losses.

(2) Provisions for specific processes.

(a) The owner(s) or operator(s) of a perchloroethylene dry cleaning facility subject to this chapter shall:

(i) Vent the entire dryer exhaust through a properly functioning carbon adsorption system or equally effective control device;

(ii) Emit no more than 100 ppmv when demonstrated in accordance with WAC 173-490-203 (3)(c)(i), of VOCs from the dryer control device before dilution;

(iii) Immediately repair all components found to be leaking liquid VOCs;

(iv) Cook or treat all diatomaceous earth filters so that the residue contains 25 kg or less of VOCs per 100 kg of wet waste material;

(v) Reduce the VOCs from all solvent stills to 60 kg or less per 100 kg of wet waste material;

(vi) Drain all filtration cartridges, in the filter housing or other enclosed container, for at least twenty-four hours before discarding the cartridges; and

(vii) When possible, dry all drained cartridges without emitting VOCs to the atmosphere.

(3) Testing and monitoring.

(a) Compliance with WAC 173-490-203 (2)(a)(i), (vi), and (vii) shall be determined by means of visual inspection.

(b) Compliance with WAC 173-490-203 (2)(a)(iii) shall be determined by means of visual inspection of the following components:

(i) Hose connections, unions, couplings and valves;

(ii) Machine door gaskets and seatings;

(iii) Filter head gasket and seating;

(iv) Pumps;

(v) Base tanks and storage containers;

(vi) Water separators;

(vii) Filter sludge recovery;

(viii) Distillation unit;

(ix) Diverter valves;

(x) Saturated lint from lint basket; and

(xi) Cartridge filters.

(c) Compliance with WAC 173-490-203 (2)(a)(ii) shall be demonstrated by:

(i) A test consistent with the procedures on file with and approved by ecology; or

(ii) The proper installation, operation, and maintenance of equipment that has been demonstrated by the owner(s) or operator(s) to adequately meet the emission limits in WAC 173-490-203 (2)(a)(ii).

(d) Compliance with WAC 173-490-203 (2)(a)(iv) and (v) shall be demonstrated by tests consistent with the procedures on file with and approved by ecology.

[Statutory Authority: Chapter 70.94 RCW. 91-05-064 (Order 90-06), § 173-490-203, filed 2/19/91, effective 3/22/91. Statutory Authority: Chapters 70.94 and 43.21A RCW. 82-16-021 (Order DE 82-22), § 173-490-203, filed 7/27/82. Statutory Authority: RCW 70.94-331, 70.94.510, and 70.94.785. 81-03-003 (Order DE 80-54), § 173-490-203, filed 1/8/81. Statutory Authority: RCW 70.94.331 and 70.94.395. 80-11-062 (Order DE 80-18), § 173-490-203, filed 8/20/80.]

WAC 173-490-204 Graphic arts systems. (1) Specific applicability.

(a) This section shall apply to all packaging rotogravure, publication rotogravure, specialty printing operations, and flexographic printing facilities that use more than 90 megagrams (100 tons) per year of VOCs as a component of ink, for the thinning of ink, cleaning of presses, press components and equipment; and are covered by WAC 173-490-025.

(b) Machines that have both coating units (apply a uniform layer of material across the entire width of a web) and printing units (forming words, designs, and pictures) shall be included under WAC 173-490-204 rather than WAC 173-490-040(6), Surface coaters.

(2) Provisions for specific processes.

(a) No owner(s) or operator(s) of a packaging rotogravure, publication rotogravure or flexographic printing subject to this regulation and employing solvent containing ink may operate, cause, allow or permit the operation of the facility unless:

(i) The volatile fraction of ink, as it is applied to the substrate, contains twenty-five percent by volume or less of organic solvent and seventy-five percent by volume or more of water;

(ii) The ink as it is applied to the substrate, less water, contains sixty percent by volume or more nonvolatile material; or

(iii) The owner(s) or operator(s) installs and operates a system that captures at least ninety percent by weight and;

(A) A carbon adsorption system which reduces the volatile organic emissions from the capture system by at least ninety percent by weight;

(B) An incineration system which oxidizes at least ninety percent of the nonmethane VOCs (VOC measured as total combustible carbon) to carbon dioxide and water; or

(C) An alternative VOC emission reduction system demonstrated to have at least a ninety percent reduction efficiency, measured across the control system, and has been approved by ecology.

(b) A collection system shall be used with the emission controls of WAC 173-490-204 (2)(a)(iii). The design and operation of the collection system shall be consistent with good engineering practice, and shall provide an overall reduction in the emission of VOCs of at least:

(i) Seventy-five percent where a publication rotogravure process is used; or

(ii) Sixty-five percent where a packaging rotogravure process is used; or

(iii) Sixty percent where a flexographic process is used.

(3) Testing and monitoring.

(a) To demonstrate compliance with this chapter, refer to WAC 173-400-105.

(b) When add-on control equipment is used, continuous monitors of the following parameters shall be installed, periodically calibrated, and operated at all times that the associated control equipment is operating:

(i) Exhaust gas temperature of all incinerators;

(ii) Temperature rise across a catalytic incinerator bed;

(iii) Breakthrough of VOC on a carbon adsorption unit; and

(iv) Any other continuous monitoring or recording device required by ecology.

(c) The owner or operator of a facility shall be responsible for all expenses of monitoring required by WAC 173-490-204 (3)(b).

[Statutory Authority: Chapter 70.94 RCW. 91-05-064 (Order 90-06), § 173-490-204, filed 2/19/91, effective 3/22/91. Statutory Authority: Chapters 70.94 and 43.21A RCW. 82-16-021 (Order DE 82-22), § 173-490-204, filed 7/27/82. Statutory Authority: RCW 70.94-331 and 70.94.395. 80-11-062 (Order DE 80-18), § 173-490-204, filed 8/20/80.]

WAC 173-490-205 Surface coating of miscellaneous metal parts and products. (1) Specific applicability. This section shall apply to surface coating of miscellaneous metal parts and products in the following industries, if the potential uncontrolled emissions of VOC is greater than 10 tons per year and as qualified in WAC 173-490-205 (1)(b), (c), and (d), and 173-490-025.

(a) Miscellaneous metal parts and products shall include:

(i) Large farm machinery (harvesting, fertilizing and planting machines, tractors, combines, etc.);

(ii) Small farm machinery (lawn and garden tractors, lawn mowers, rototillers, etc.);

(iii) Small appliances (fans, mixers, blenders, crock pots, dehumidifiers, vacuum cleaners, etc.);

(iv) Commercial machinery (office equipment, computers and auxiliary equipment, typewriters, calculators, vending machines, etc.);

(v) Industrial machinery (pumps, compressors, conveyor components, fans, blowers, transformers, etc.);

(vi) Fabricated metal products (metal covered doors, frames, etc.); and

(vii) Any other industrial category which coats metal parts or products under the Standard Industrial Classification Code of Major Group 33 (primary metal industries), Major Group 34 (fabricated metal products), Major Group 35 (nonelectric machinery), Major Group 36 (electrical machinery), Major Group 37 (transportation equipment), Major Group 38 (miscellaneous instruments), Major Group 39 (miscellaneous manufacturing industries), Major Group 40 (railroad transportation), and Major Group 41 (transit passenger transportation).

(b) This section is not applicable to the surface coating of the following metal parts and products:

- (i) Automobiles and light-duty trucks;
- (ii) Metal cans;
- (iii) Flat metal sheets and strips in the form of rolls or coils;
- (iv) Magnet wire for use in electrical machinery;
- (v) Metal furniture;
- (vi) Large appliances;
- (vii) Airplanes;
- (viii) Automobile refinishing;
- (ix) Customized top coating of automobiles and trucks, if production is less than thirty-five vehicles per day; and
- (x) Exterior of marine vessels.

(c) This chapter applies to the application area, flashoff area, air and forced air drier, and oven used in the surface coating of the metal parts and products in WAC 173-490-205 (1)(a). This chapter also applies to prime coat, top coat, and single coat operations.

(d) The application of coatings whose formulations are controlled by federal specifications and the use of which is required by federal agencies shall be exempt from the emission limits in WAC 173-490-205 (2)(a).

(e) A case-by-case determination of the emission controls best representing RACT may be substituted for the requirements of WAC 173-490-205(2). Such a determination shall be approved by ecology.

(2) Provisions for specific processes.

(a) The owner or operator of a coating application system shall not emit a quantity of VOCs greater than those listed by specific coating, excluding water and as delivered to the application system:

- (i) Clear coatings 0.52 kg/liter (4.3 lb/gallon)
- (ii) Extreme performance coatings 0.42 kg/liter (3.5 lb/gallon)
- (iii) Air dried coatings 0.42 kg/liter (3.5 lb/gallon)
- (iv) All others 0.36 kg/liter (3.0 lb/gallon)
- (v) Powder coatings 0.05 kg/liter (0.4 lb/gallon)

(b) When more than one emission limitation listed in WAC 173-490-205 (2)(a) applies to a specific coating, the least stringent will apply.

(c) All VOC emissions from solvent washings shall be considered in the emission limitations in WAC 173-490-205 (2)(a), unless the solvent is directed into containers that prevent evaporation into the atmosphere.

(d) The emission limits set forth in WAC 173-490-205 (2)(a) shall be achieved by:

- (i) The application of low solvent coating technology; or
- (ii) An incineration system that oxidizes at least ninety percent of the VOCs (VOC measured as total combustible carbon) to carbon dioxide and water; or
- (iii) An equivalent means of VOC reduction certified by the owner(s) or operator(s) and approved by ecology.

(e) A collection system shall be used together with the incinerator of WAC 173-490-205 (2)(d)(ii). The design and operation of the collection system shall be consistent with good engineering practice and provide for an overall VOC emission reduction necessary to comply with

the emission limits of WAC 173-490-205 (2)(a). The required VOC emission reduction shall be calculated on a unit volume of uncured solids basis.

(3) Testing and monitoring.

(a) Ecology may require the owner(s) or operator(s) of a source to demonstrate at his/her own expense, compliance by the methods of WAC 173-490-205 (3)(c).

(b) The owner(s) or operator(s) of a source shall notify ecology at least ten days before a proposed emission certification test so the director or a representative may observe the test.

(c) To demonstrate compliance with this chapter, refer to WAC 173-400-105.

(d) Ecology may require monitoring of the following parameters:

- (i) Exhaust gas temperature of all incinerators;
- (ii) Temperature rise across a catalytic incinerator bed; and
- (iii) Breakthrough of VOC on a carbon adsorption unit.

[Statutory Authority: Chapter 70.94 RCW. 91-05-064 (Order 90-06), § 173-490-205, filed 2/19/91, effective 3/22/91. Statutory Authority: Chapters 70.94 and 43.21A RCW. 82-16-021 (Order DE 82-22), § 173-490-205, filed 7/27/82. Statutory Authority: RCW 70.94-.331 and 70.94.395. 80-11-062 (Order DE 80-18), § 173-490-205, filed 8/20/80.]

WAC 173-490-207 Surface coating of flatwood paneling. (1) Specific applicability.

(a) This section shall apply to all flatwood panel manufacturers and surface finishing facilities as qualified in WAC 173-490-207 (1)(b) and (c) and 173-490-025.

(b) These chapters shall apply to all operations and equipment that is used to apply, convey and dry (including flashoff areas) a surface pattern or coating on the following products:

- (i) Printed interior panels made of hardwood plywood and thin particleboard;
- (ii) Natural finish hardwood plywood panels; or
- (iii) Hardboard paneling with Class II finishes.

(c) These chapters do not apply to the manufacture of exterior siding, tileboard, or particleboard used as a furniture component.

(2) Provisions for specific processes.

(a) The owner(s) or operator(s) of a facility shall not emit VOCs from a coating application system in excess of:

- (i) 2.9 kg per 100 square meters of coated finished product (6.0 lb/1,000 square feet) from printed interior panels, regardless of the number of coats applied;
- (ii) 5.9 kg per 100 square meters of coated finished product (12.0 lb/1,000 square feet) from natural finish hardwood plywood panels, regardless of the number of coats applied; and
- (iii) 4.9 kg per 100 square meters of coated finished product (10.0 lb/1,000 square feet) from Class II finishes on hardboard panels, regardless of the number of coats applied.

(b) The emission limits in WAC 173-490-207 (2)(a) shall be achieved by:

(i) The application of low solvent content coating technology; or

(ii) An incineration system which oxidizes at least ninety percent of the nonmethane VOCs entering the incinerator (VOC measured as total combustible carbon) to carbon dioxide and water; or

(iii) An equivalent means of VOC removal. The equivalent means must be certified by the owner(s) or operator(s) and approved by ecology.

(c) A capture system shall be used in conjunction with the emission control systems in WAC 173-490-207 (2)(b)(ii) and (iii). The design and operation of the capture system must be consistent with good engineering practice and shall be required to provide for an overall emission reduction sufficient to meet the emission limitation in WAC 173-490-207 (2)(a).

(3) Testing and monitoring.

(a) Ecology may require the owner or operator of a facility to demonstrate at his/her own expense compliance by the methods of WAC 173-490-207 (3)(c).

(b) The owner(s) or operator(s) of a facility shall notify ecology at least ten days before a proposed emission certification test so the director or a representative may observe the test.

(c) To demonstrate compliance with this chapter, refer to WAC 173-400-105.

(d) Ecology may require monitoring of the following parameters:

(i) Exhaust gas temperature of all incinerators;

(ii) Temperature rise across a catalytic incinerator bed; and

(iii) Breakthrough of VOC on a carbon adsorption unit.

[Statutory Authority: Chapter 70.94 RCW. 91-05-064 (Order 90-06), § 173-490-207, filed 2/19/91, effective 3/22/91. Statutory Authority: RCW 70.94.331 and 70.94.395. 80-11-062 (Order DE 80-18), § 173-490-207, filed 8/20/80.]

WAC 173-490-208 Aerospace assembly and component coating operations. (1) Specific applicability. This section shall apply to all aerospace component coating facilities that emit an annual average of eighteen kilograms (forty pounds) or more of VOCs per operating day and as qualified in WAC 173-490-025.

(2) It shall be unlawful for any person to cause or allow:

(a) The application of any primer or topcoat to aerospace components which contains in excess of:

(i) 650 grams of VOC per liter of primer, less water, as applied.

(ii) 600 grams of VOC per liter of topcoat, less water, as applied.

(b) The application of any temporary protective coating to aerospace components that contains more than 250 grams of VOC per liter of material, less water, as applied.

(c) The use of VOCs of composite vapor pressure of 10.4 kPa (1.5 psia) or greater at a temperature of 21.1°C (70°F) for surface preparation or cleanup, excluding paint removal.

(d) The use of VOCs for the cleanup of spray equipment used in aerospace component coating operations unless 85 percent of the VOCs by weight, are collected and disposed so that they are not emitted to the atmosphere.

(e) The use of a stripper which contains more than 400 grams of VOC per liter or has a composite vapor pressure of VOCs more than 1.3 kPa (0.19 psia) at 21.1°C (70°F).

(3) The emission limits of paragraph (2) shall be achieved by:

(a) The application of reasonably available low solvent coating technology;

(b) A vapor collection and disposal system; or

(c) An equivalent method of VOC reduction certified by the owner(s) or operator(s) and approved by ecology.

(4) The provisions of WAC 173-490-208 (2)(a) and (2)(b) shall not apply to the following materials:

(a) Coatings for masking in chemical etching operations,

(b) Adhesive bonding primer,

(c) Flight test coatings,

(d) Space vehicle coatings, or

(e) Fuel tank coatings.

(5) Upon the submission of an alternative coating evaluation, ecology may determine that a reasonably available low solvent coating does exist for a given application and may exempt the coating from requirements of WAC 173-490-208. All alternative coating evaluations shall contain, as a minimum:

(a) Types of products to be coated,

(b) Types of coatings evaluated,

(c) Results of performance tests,

(d) Status of research into development of low VOC coatings for the application,

(e) Feasibility of installing control equipment,

(f) Mitigating measures that could be implemented to reduce VOC emissions.

[Statutory Authority: Chapter 70.94 RCW. 91-05-064 (Order 90-06), § 173-490-208, filed 2/19/91, effective 3/22/91. Statutory Authority: Chapters 70.94 and 43.21A RCW. 82-16-021 (Order DE 82-22), § 173-490-208, filed 7/27/82.]

Chapter 173-491 WAC

EMISSION STANDARDS AND CONTROLS FOR SOURCES EMITTING GASOLINE VAPORS

WAC

173-491-010	Policy and purpose.
173-491-015	Applicability.
173-491-020	Definitions.
173-491-030	Registration.
173-491-040	Gasoline vapor control requirements.
173-491-050	Compliance schedules.

WAC 173-491-010 Policy and purpose. (1) It is the policy of the department of ecology (ecology) under the authority vested in it by chapters 43.21A and 70.94 RCW to provide for the systematic control of air pollution from air contaminant sources and for the proper development of the state's natural resources.

(2) It is the purpose of this chapter to establish standards for the control of air contaminants emitted from gasoline marketing sources.

[Statutory Authority: RCW 70.94.331. 91-14-101 (Order 90-63), § 173-491-010, filed 7/2/91, effective 8/2/91.]

WAC 173-491-015 Applicability. This chapter shall apply to gasoline marketing operations, including the storage, transport, and transfer of gasoline, including the transfer from storage tanks into transport tanks, and from storage tanks into motor vehicles. The requirements of this chapter supersede any less restrictive requirements of chapter 173-490 WAC, Emission standards and controls for sources emitting volatile organic compounds (VOC).

[Statutory Authority: RCW 70.94.331. 91-14-101 (Order 90-63), § 173-491-015, filed 7/2/91, effective 8/2/91.]

WAC 173-491-020 Definitions. The definitions of terms contained in chapter 173-400 WAC are by this reference incorporated into this chapter. Unless a different meaning is clearly required by context, the following words and phrases, as used in this chapter, shall have the following meanings:

(1) "Bottom loading" means the filling of a tank through a line entering the bottom of the tank.

(2) "Bulk gasoline plant" means a gasoline storage and transfer facility that receives more than ninety percent of its annual gasoline throughput by transport tank, and reloads gasoline into transport tanks.

(3) "Certified vapor recovery system" means a vapor recovery system which has been certified by the department of ecology. Only Stage II vapor recovery systems with a single coaxial hose can be certified. The department may certify vapor recovery systems certified by the California Air Resources Board as of the effective date of the regulation.

(4) "Gasoline" means a petroleum distillate which is a liquid at standard conditions and has a true vapor pressure greater than four pounds per square inch absolute at twenty degrees C, and is used as a fuel for internal combustion engines. Also any liquid sold as a vehicle fuel with a true vapor pressure greater than four pounds per square inch absolute at twenty degrees C shall be considered "gasoline" for purpose of this regulation.

(5) "Gasoline dispensing facility" means any site dispensing gasoline into motor vehicle fuel tanks from stationary storage tanks.

(6) "Gasoline loading terminal" means a gasoline transfer facility that receives more than ten percent of its annual gasoline throughput solely or in combination by pipeline, ship or barge, and loads gasoline into transport tanks.

(7) "Leak free" means a liquid leak of less than four drops per minute.

(8) "Stage I" means gasoline vapor recovery during all gasoline marketing transfer operations except motor vehicle refueling.

(9) "Stage II" means gasoline vapor recovery during motor vehicle refueling operations from stationary tanks.

(10) "Submerged fill line" means any discharge pipe or nozzle which meets either of the following conditions:

- Where the tank is filled from the top, the end of the discharge pipe or nozzle must be totally submerged when the liquid level is six inches from the bottom of the tank, or;
- Where the tank is filled from the side, the discharge pipe or nozzle must be totally submerged when the liquid level is eighteen inches from the bottom of the tank.

(11) "Submerged loading" means the filling of a tank with a submerged fill line.

(12) "Suitable cover" means a door, hatch, cover, lid, pipe cap, pipe blind, valve, or similar device that prevents the accidental spilling or emitting of gasoline. Pressure relief valves, aspirator vents, or other devices specifically required for safety and fire protection are not included.

(13) "Throughput" means the amount of material passing through a facility.

(14) "Top off" means to attempt to dispense gasoline to a motor vehicle fuel tank after a vapor recovery dispensing nozzle has shut off automatically.

(15) "Transport tank" means a container used for shipping gasoline over roadways.

(16) "True vapor pressure" means the equilibrium partial pressure of a petroleum liquid as determined by methods described in American Petroleum Institute Bulletin 2517, 1980.

(17) "Upgraded" means the modification of a gasoline storage tank or piping to add cathodic protection, tank lining or spill and overfill protection that involved removal of ground or ground cover above a portion of the product piping.

(18) "Vapor balance system" means a system consisting of the transport tank, gasoline vapor transfer lines, storage tank, and all tank vents designed to route displaced gasoline vapors from a tank being filled with liquid gasoline.

(19) "Vapor collection system" means a closed system to conduct vapors displaced from a tank being filled into the tank being emptied, a vapor holding tank, or a vapor control system.

(20) "Vapor control system" means a system designed and operated to reduce or limit the emission of gasoline vapors emission into the ambient air.

(21) "Vapor-mounted seal" means a primary seal mounted so there is an annular vapor space underneath the seal. The annular vapor space is bounded by the bottom of the primary seal, the tank wall, the liquid surface, and the floating roof.

(22) "Vapor tight" means a leak of less than one hundred percent of the lower explosive limit on a combustible gas detector measured at a distance of one inch from the source or no visible evidence of air entrainment in the sight glasses of liquid delivery hoses.

(23) "Western Washington counties" means the following counties: Clallam, Clark, Cowlitz, Grays Harbor, Island, Jefferson, King, Kitsap, Lewis, Mason, Pacific, Pierce, San Juan, Skagit, Skamania, Snohomish, Thurston, Wahkiakum, and Whatcom.

[Statutory Authority: RCW 70.94.331. 91-14-101 (Order 90-63), § 173-491-020, filed 7/2/91, effective 8/2/91.]

WAC 173-491-030 Registration. (1) The owner or operator of a gasoline loading terminal, bulk gasoline plant, or gasoline dispensing facility subject to the provisions of WAC 173-491-040 (2) through (5) shall register annually the facility with ecology or local air authority. Annual registration shall be made by the owner or operator on a form provided by ecology or local air authority within sixty days of receipt of the form. Such registration form shall require information relevant to determining whether the facility is in compliance with the requirements of this chapter and be accompanied by the following fee: Gasoline loading terminals five hundred dollars, bulk gasoline plants two hundred dollars, gasoline dispensing facilities one hundred dollars, or a greater amount duly adopted by a local air pollution authority. The amount of the fees collected shall only be used to administer the registration program for facilities subject to this chapter.

(2) Administration of the registration program shall include:

(a) Initial registration and annual or other periodic reports from the source owner providing information directly related to air pollution registration.

(b) On-site inspections necessary to verify compliance with registration requirements.

(c) Data storage and retrieval systems necessary for support of the registration program.

(d) Emission inventory reports and emission reduction credits computed from information provided by sources pursuant to registration.

(e) Staff review, including engineering analysis for accuracy and currentness, of information provided by sources pursuant to registration requirements.

(f) Clerical and other office support provided in direct furtherance of the registration program.

(g) Administrative support provided in directly carrying out the registration program.

(3) Ecology or local air authority will provide a written verification of registration to owners or operators of facilities subject to the provisions of WAC 173-491-040 (2) through (5). Such verification shall be available for inspection by ecology or local air authority personnel during normal business hours.

(4) The owner or operator of a gasoline loading terminal or a gasoline dispensing facility shall maintain total annual gasoline throughput records for the most recent two calendar years. Such records shall be available for inspection by ecology or local air authority personnel during normal business hours.

[Statutory Authority: RCW 70.94.331, 91-14-101 (Order 90-63), § 173-491-030, filed 7/2/91, effective 8/2/91.]

WAC 173-491-040 Gasoline vapor control requirements. (1) Fixed-roof gasoline storage tanks.

(a) All fixed-roof gasoline storage tanks having a nominal capacity greater than forty thousand gallons shall comply with one of the following:

(i) Meet the equipment specifications and maintenance requirements of the federal standards of performance for new stationary sources - Storage Vessels for Petroleum Liquids (40 CFR 60, subpart K).

(ii) Be retrofitted with a floating roof or internal floating cover using a metallic seal or a nonmetallic resilient seal at least meeting the equipment specifications of the federal standards referred to in (a)(i) of this subsection or its equivalent.

(iii) Be fitted with a floating roof or internal floating cover meeting the manufacturer's equipment specifications in effect when it was installed.

(b) All seals used in (a)(ii) and (iii) of this subsection are to be maintained in good operating condition and the seal fabric shall contain no visible holes, tears, or other openings.

(c) All openings not related to safety are to be sealed with suitable closures.

(d) Tanks used for the storage of gasoline in bulk gasoline plants and equipped with vapor balance systems as required in subsection (3)(b) of this section shall be exempt from the requirements of subsection (1) of this section.

(2) Gasoline loading terminals.

(a) This chapter shall apply to all gasoline loading terminals with an average annual gasoline throughput greater than 7.2 million gallons according to the schedule of compliance in WAC 173-491-050.

(b) Loading facilities. Facilities for the purpose of loading gasoline into any transport tank shall be equipped with a vapor control system (VCS) as described in (c) of this subsection and comply with the following conditions:

(i) The loading facility shall employ submerged or bottom loading for all transport tanks.

(ii) The VCS shall be connected during the entire loading of all transport tanks.

(iii) The loading of all transport tanks shall be performed such that the transfer is at all times vapor tight. Emissions from pressure relief valves shall not be included in the controlled emissions when the back pressure in the VRS collection lines is lower than the relief pressure setting of the transport tank's relief valves.

(iv) All loading lines and vapor lines shall be equipped to close automatically when disconnected. The point of closure shall be on the tank side of any hose or intermediate connecting line.

(c) Vapor control system (VCS). The VCS shall be designed and built according to accepted industrial practices and meet the following conditions:

(i) The VCS shall not allow organic vapors emitted to the ambient air to exceed thirty-five milligrams per liter (three hundred twenty-two milligrams per gallon) of gasoline loaded.

(ii) The VCS shall be equipped with a device to monitor the system while the VCS is in operation.

(iii) The back pressure in the VCS collection lines shall not exceed the transport tank's pressure relief settings.

(3) Bulk gasoline plants.

(a) This section shall apply to all bulk gasoline plants with an average annual gasoline throughput greater than 7.2 million gallons according to the schedule of compliance in WAC 173-491-050.

(b) Deliveries to bulk gasoline plant storage tanks.

(i) The owner or operator of a bulk gasoline plant shall not permit the loading of gasoline into a storage tank equipped with vapor balance fittings unless the vapor balance system is attached to the transport tank and operated properly. The vapor balance system shall prevent at least ninety percent of the displaced gasoline vapors from entering the ambient air. A vapor balance system that is designed, built, and operated according to accepted industrial practices will satisfy this requirement.

(ii) Storage tank requirements. All storage tanks with a nominal capacity greater than five hundred fifty gallons and used for the storage of gasoline shall comply with the following conditions:

(A) Each storage tank shall be equipped with a submerged fill line.

(B) Each storage tank shall be equipped for vapor balancing of gasoline vapors with transport tanks during gasoline transfer operations.

(C) The vapor line fittings on the storage tank side of break points with the transport tank vapor connection pipe or hose shall be equipped to close automatically when disconnected.

(D) The pressure relief valves on storage tanks shall be set at the highest possible pressure consistent with local and state codes for fire and safety but in no case greater than ninety percent of the tank's safe working pressure.

(iii) Transport tank requirements. All transport tanks transferring gasoline to storage tanks in a bulk gasoline plant shall comply with the following conditions:

(A) The transport tank shall be equipped with the proper attachment fittings to make vapor tight connections for vapor balancing with storage tanks.

(B) The vapor line fittings on the transport tank side of break points with the storage tank connection pipe or hose shall be equipped to close automatically when disconnected.

(C) The pressure relief valves on transport tanks shall be set at the highest possible pressure consistent with local and state codes for fire and safety.

(c) Gasoline transfer operations.

(i) No owner or operator of a bulk gasoline plant or transport tank shall allow the transfer of gasoline between a stationary storage tank and a transport tank except when the following conditions exist:

(A) The transport tanks are being submerged filled or bottom loaded.

(B) The loading of all transport tanks, except those exempted under (c)(ii) of this subsection are being performed using a vapor balance system.

(C) The transport tanks are equipped to balance vapors and maintained in a leak tight condition in accordance with subsection (6) of this section.

(D) The vapor return lines are connected between the transport tank and the stationary storage tank and the vapor balance system is operated properly.

(ii) Transport tanks used for gasoline and meeting all of the following conditions shall be exempt from the requirement to be equipped with any attachment fitting for vapor balance lines if:

(A) The transport tank is used exclusively for the delivery of gasoline into storage tanks of a facility exempt from the vapor balance requirements of subsection (4) of this section; and

(B) The transport tank has a total nominal capacity less than four thousand gallons and is constructed so that it would require the installation of four or more separate vapor balance fittings.

(4) Gasoline dispensing facilities (Stage I).

(a) This section shall apply to the delivery of gasoline to gasoline dispensing facilities with an annual gasoline throughput greater than three hundred sixty thousand gallons in accordance with the schedule of compliance in WAC 173-491-050 and all new gasoline dispensing facilities with a total gasoline nominal storage capacity greater than ten thousand gallons.

(b) All gasoline storage tanks of the facilities defined in (a) of this subsection shall be equipped with submerged or bottom fill lines and fittings to vapor balance gasoline vapors with the delivery transport tank.

(c) Gasoline storage tanks with offset fill lines shall be exempt from the requirement of (b) of this subsection if installed prior to January 1, 1979.

(d) The owner or operator of a gasoline dispensing facility shall not permit the loading of gasoline into a storage tank equipped with vapor balance fittings unless the vapor balance system is attached to the transport tank and operated satisfactorily.

(5) Gasoline dispensing facilities (Stage II).

(a) This section shall apply to the refueling of motor vehicles from stationary tanks at all gasoline dispensing facilities located in western Washington counties with an annual gasoline throughput greater than eight hundred forty thousand gallons with the exception of Clark, King, Pierce, and Snohomish counties where this section shall apply to gasoline dispensing facilities with an annual gasoline throughput greater than six hundred thousand gallons in accordance with the schedule of compliance in WAC 173-491-050 and all new gasoline dispensing facilities with greater than ten thousand gallons gasoline nominal storage capacity in western Washington counties.

(b) All gasoline dispensing facilities subject to this section shall be equipped with a certified Stage II vapor recovery system.

(c) The owner or operator of a gasoline dispensing facility subject to this section shall not transfer or allow the transfer of gasoline from stationary tanks into motor vehicle fuel tanks unless a certified Stage II vapor recovery system is used.

(d) All Stage II vapor recovery equipment shall be installed in accordance with the system's certification requirements and shall be maintained to be leak free, vapor tight, and in good working order.

(e) Whenever a Stage II vapor recovery system component is determined to be defective, the owner or operator shall take the system out of service until it has been repaired, replaced, or adjusted, as necessary.

(f) The owner or operator of each gasoline dispensing facility utilizing a Stage II system shall conspicuously post operating instructions for the system in the gasoline

dispensing area. The instructions shall clearly describe how to fuel vehicles correctly using the vapor recovery nozzles and include a warning against topping off. Additionally, the instructions shall include a prominent display of ecology's toll free telephone number for complaints regarding the operation and condition of the vapor recovery nozzles.

(6) Equipment or systems failures.

(a) Specific applicability. This section shall apply to all gasoline transport tanks equipped for gasoline vapor collection and all vapor collection systems at gasoline loading terminals, bulk gasoline plants, and gasoline dispensing facilities as described in subsections (2) through (5) of this section.

During the months of May, June, July, August, and September any failure of a vapor collection system at a bulk gasoline plant or gasoline loading terminal to comply with this section requires the discontinuation of gasoline transfer operations for the failed part of the system. Other transfer points that can continue to operate in compliance may be used. The loading or unloading of the transport tank connected to the failed part of the vapor collection system may be completed during the other months of the year.

(b) Provisions for specific processes.

(i) The owner or operator of a gasoline loading terminal or bulk gasoline plant shall only allow the transfer of gasoline between the facility and a transport tank if a current leak test certification for the transport tank is on file with the facility or a valid inspection sticker is displayed on the vehicle. Certification is required annually.

(ii) The owner or operator of a transport tank shall not make any connection to the tank for the purpose of loading or unloading gasoline, except in the case of an emergency, unless the gasoline transport tank has successfully completed the annual certification testing requirements in (c) of this subsection, and such certification is confirmed either by:

(A) Have on file with each gasoline loading or unloading facility at which gasoline is transferred a current leak test certification for the transport tank; or

(B) Display a sticker near the department of transportation certification plate required by 49 CFR 178.340-10b which:

(I) Shows the date that the gasoline tank truck last passed the test required in (c) of this subsection;

(II) Shows the identification number of the gasoline tank truck tank; and

(III) Expires not more than one year from the date of the leak tight test.

(iii) The owner or operator of a vapor collection system shall:

(A) Operate the vapor collection system and the gasoline loading equipment during all loadings and unloadings of transport tanks equipped for emission control such that:

(I) The tank pressure will not exceed a pressure of eighteen inches of water or a vacuum of six inches of water;

(II) The concentration of gasoline vapors is below the lower explosive limit (LEL, measured as propane) at all

points a distance of one inch from potential leak sources; and

(III) There are no visible liquid leaks except for a liquid leak of less than four drops per minute at the product loading connection during delivery.

(IV) Upon disconnecting transfer fittings, liquid leaks do not exceed ten milliliters (0.34 fluid ounces) per disconnect averaged over three disconnects.

(B) Repair and retest a vapor collection system that exceeds the limits of (b)(iii)(A) of this subsection within fifteen days.

(iv) The department or local air authority may, at any time, monitor a gasoline transport tank and vapor collection system during loading or unloading operations by the procedure in (c) of this subsection to confirm continuing compliance with this section.

(c) Testing and monitoring.

(i) The owner or operator of a gasoline transport tank or vapor collection system shall, at his own expense, demonstrate compliance with (a) and (b) of this subsection, respectively. All tests shall be made by, or under the direction of, a person qualified to perform the tests and approved by the department.

(ii) Testing to determine compliance with this section shall use procedures approved by the department.

(iii) Monitoring to confirm continuing leak tight conditions shall use procedures approved by the department.

(d) Recordkeeping.

(i) The owner or operator of a gasoline transport tank or vapor collection system shall maintain records of all certification tests and repairs for at least two years after the test or repair is completed.

(ii) The records of certification tests required by this section shall, as a minimum, contain:

(A) The transport tank identification number;

(B) The initial test pressure and the time of the reading;

(C) The final test pressure and the time of the reading;

(D) The initial test vacuum and the time of the reading;

(E) The final test vacuum and the time of the reading;

(F) At the top of each report page the company name, date, and location of the tests on that page; and

(G) Name and title of the person conducting the test.

(iii) The owner or operator of a gasoline transport tank shall annually certify that the transport tank passed the required tests.

(iv) Copies of all records required under this section shall immediately be made available to the department, upon written request, at any reasonable time.

(e) Preventing evaporation. All persons shall take reasonable measures to prevent the spilling, discarding in sewers, storing in open containers, or handling of gasoline in a manner that will result in evaporation to the ambient air.

[Statutory Authority: RCW 70.94.331, 91-14-101 (Order 90-63), § 173-491-040, filed 7/2/91, effective 8/2/91.]

WAC 173-491-050 Compliance schedules. (1) Fixed-roof gasoline storage tanks. All fixed roof gasoline

storage tanks subject to WAC 173-491-040(1) shall comply no later than December 31, 1993.

(2) Gasoline loading terminals. All gasoline loading terminals subject to WAC 173-491-040(2) shall comply no later than December 31, 1993.

(3) Bulk gasoline plants. All bulk gasoline plants subject to the requirements of WAC 173-491-040(3) shall comply no later than December 31, 1993.

(4) Gasoline dispensing facilities - Stage I. All gasoline dispensing facilities subject to the requirements of WAC 173-491-040(4) shall comply no later than December 31, 1993, or whenever the facility is upgraded.

(5) Gasoline dispensing facilities - Stage II. All gasoline dispensing facilities subject to the requirements of WAC 173-491-040(5) shall comply:

(a) When upgraded except any gasoline dispensing facility upgraded or with new tank(s) installed after the effective date of this regulation but before May 1, 1992, need not comply earlier than May 1, 1992.

(b) According to the following schedule:

(i) At least fifty percent of the gasoline dispensing facilities with an annual throughput greater than 1.2 million gallons owned by a business which owns ten or more gasoline dispensing facilities in the state of Washington must comply no later than May 1, 1993. In meeting this requirement, businesses that lease some facilities and operate others must ensure that the percentage of facilities owned and operated which are required to comply with this provision at least equals the percentage of leased facilities required to comply with this provision.

(ii) All gasoline dispensing facilities with an annual throughput greater than 1.2 million gallons not previously required to comply must comply not later than May 1, 1994.

(iii) All gasoline dispensing facilities with an annual throughput greater than six hundred thousand gallons not previously required to comply must comply not later than December 31, 1998.

[Statutory Authority: RCW 70.94.331, 91-14-101 (Order 90-63), § 173-491-050, filed 7/2/91, effective 8/2/91.]

Chapter 173-500 WAC

WATER RESOURCES MANAGEMENT PROGRAM ESTABLISHED PURSUANT TO THE WATER RESOURCES ACT OF 1971

WAC

173-500-080 Critical water recourse situation response process.

WAC 173-500-080 Critical water recourse situation response process. In areas subject to the department of ecology's jurisdiction, where there may be current or anticipated critical water resource or related water quality concerns, the local government(s), the state or the affected federally recognized tribe(s) may request that representatives from all three governmental entities and, as needed, appropriate federal agencies agree to the designation of the area as a critical water resource situation. All represented parties must agree to the

designation. Upon designation, an intergovernmental group will be convened.

The purpose of the intergovernmental group is to cooperatively design a consultation strategy to address the problem(s) which triggered this critical situation response process.

The legal rights and remedies available to the three governmental entities shall not be compromised or abridged by participation in the critical situation response process. However, all of the parties agree to undertake a good faith effort to resolve the critical water resource situation without first resorting to legal action.

When the intergovernmental group determines that a critical water resource situation exists or requires further evaluation or data collection, the parties will consider applying those tools necessary to protect the resources. These tools must be exercised within 12 months or as otherwise agreed to by the parties, and include, but are not limited to: Targeted conservation, efficiency, reuse; compliance and enforcement; dispute resolution assistance, memoranda of understanding and other agreements; local government restrictions on permit issuance or moratoria; basin withdrawal by adoption of administrative regulations under RCW 90.54.050 or limited state permit issuance.

[Statutory Authority: Chapters 34.05 and 90.54 RCW. 91-18-011 (Order 91-25), § 173-500-080, filed 8/23/91, effective 9/23/91.]

Chapter 173-548 WAC

WATER RESOURCES PROGRAM IN THE METHOW RIVER BASIN, WRIA 48

WAC

173-548-050 Streams and lakes closed to further consumptive appropriations.

WAC 173-548-050 Streams and lakes closed to further consumptive appropriations. The department, having determined based on existing information that there are no waters available for further appropriation through the establishment of rights to use water consumptively, closes the streams and lakes listed in (a) and (b), and ground water hydraulically connected with these surface waters to further consumptive appropriation[.] This includes rights to use water consumptively established through permit procedures and ground water withdrawals otherwise exempted from permit under RCW 90.44.050. Specific situations in which well construction may be approved are identified.

No wells shall be constructed for any purposes, including those exempt from permitting under RCW 90.44.050, unless one or more of the following conditions have been met and construction of the well has been approved in writing by the department prior to the beginning of well construction:

(1) The proponent has a valid water right permit recognized by the department. For an existing community domestic use, a water right permit must be held by a purveyor of an approved system. (For the purposes of

this chapter, an approved water system is one in compliance with the state drinking water regulations, chapter 246-290 WAC and the state surface and ground water codes, chapters 90.03 and 90.44 RCW); or

(2) The proponent has obtained a valid state surface or ground water right through a transfer approved by the department under the statutory authority of chapter 90.03 or 90.44 RCW; or

(3) The proponent is replacing or modifying an existing well developed under the exemption from permit clause of RCW 90.44.050 and this has been approved in writing by the department; or,

(4) If the ground water being sought for withdrawal has been determined by the department not to be hydraulically connected with surface waters listed as closed, the department may approve a withdrawal. When insufficient evidence is available to the department to make a determination that ground and surface waters are not hydraulically connected, the department shall not approve the withdrawal of ground water unless the person proposing to withdraw the ground water provides additional information sufficient for the department to determine that hydraulic continuity does not exist and that water is available.

(a) STREAM CLOSURES

The following streams are closed all year, including all ground waters hydraulically connected to these streams.

Stream Name
(Includes Tributaries)

- Wolf Creek
- Bear Creek
(Davis Lake)
- Thompson Creek
- Beaver Creek
- Alder Creek
- Benson Creek
- Texas Creek
- Libby Creek
- Cow Creek
- Gold Creek
- McFarland Creek
- Squaw Creek
- Black Canyon Creek
- French Creek

(b) LAKE CLOSURES

The following lakes are closed all year, including all ground waters hydraulically connected to these lakes:

Name	Location
Alta Lake	3 mi. SW of Pateros
Black Lake	25 mi. N of Winthrop
Black Pine Lake	9 mi. SW of Twisp
Crater Lake	10 mi. W of Carlton
Davis Lake	Bear Creek Drainage
Eagle Lake	11 mi. SW of Carlton
French Creek	Sec.28, T.31N., R.23E.
Libby Lake	10 mi. W of Carlton
Louis Lake	20 mi. W of Winthrop
Middle Oval Lake	16 mi. W of Carlton
North Lake	20 mi. W of Winthrop
Patterson Lake	Sec.8, T.34N., R.21E.
Pearrygin Lake	Sec.36, T.35N., R.21E.
Slate Lake	14 mi. W of Winthrop
Sunrise Lake	16 mi. W of Methow
Upper Eagle Lake	12 mi. W of Carlton
West Oval Lake	16 mi. W of Carlton

[Statutory Authority: Chapters 34.05, 90.54, 18.104, 90.03 and 90.44 RCW. 91-23-093 (Order 91-27), § 173-548-050, filed 11/19/91, effective 12/20/91; Order DE 76-37, § 173-548-050, filed 12/28/76.]