

WAC 173-350-500 Groundwater monitoring.

(1) **Groundwater monitoring** - ~~Professional qualifications~~ General provisions.

(a) Applicability. This section applies to limited purpose landfills subject to WAC 173-350-400 and surface impoundments that do not have a leak detection layer subject to WAC 173-350-330. Subsections (1), (3), (4) and (5) apply to all such facilities, and subsection (2) applies to WAC 173-350-400 limited purpose landfills only.

(b) Jurisdictional health departments are responsible for regulation of groundwater monitoring at landfills and other solid waste handling facilities they permit, except in instances where responsibility is shared with the department.

(c) All reports, plans, procedures, and design specifications required by this section ~~shall~~ must be prepared by a licensed professional in accordance with the requirements of chapter 18.220 RCW, Geologists.

(2) **Groundwater monitoring - Site characterization** for landfill sites. A site proposed for ~~solid waste~~ limited purpose landfill activities subject to WAC 173-350-400 ~~shall~~ must be characterized for its geologic and hydrogeologic properties and suitability for construct-

ing, operating, and monitoring ~~a solid waste~~the facility in accordance with all applicable requirements of this chapter. The site characterization report ~~shall~~must be submitted with the permit application and ~~shall~~must include at a minimum the following:

(a) A summary of local and regional geology and hydrology, including:

(i) Faults;

(ii) ~~Zones of joint concentrations~~Joints and fractures;

(iii) Unstable slopes and subsidence areas on-site;

(iv) Areas of groundwater recharge and discharge;

(v) Stratigraphy; and

(vi) Erosional and depositional environments ~~and facies interpretation(s)~~.

(b) A site-specific borehole program ~~including~~that includes a description of lithology, soil/bedrock types and properties, preferential groundwater flow paths or zones of higher hydraulic conductivity, the presence of confining unit(s) and geologic features such as fault zones, cross-cutting structures, ~~etc., and~~ the target hydrostratigraphic unit(s) to be monitored, and other relevant information. All procedures conducted must follow current applicable ASTM procedures. A

list of procedures that were followed must be identified in subsequent report(s). Requirements of the borehole program include:

(i) Each boring will be of sufficient depth below the proposed grade of the bottom liner to identify soil, bedrock, and hydrostratigraphic unit(s);

(ii) Boring samples ~~shall~~ must be collected from five-foot intervals at a minimum and at changes in lithology. Representative samples ~~shall~~ must be described using the unified soil classification system; ~~following ASTM D2487-85~~ and tested for the following, if appropriate:

(A) Particle size distribution by sieve and hydrometer analyses; ~~in accordance with approved ASTM methods (D422 and D1120); and~~

(B) Atterburg limits ~~following approved ASTM method D4318;~~

~~(iii) Each lithologic unit on site will be analyzed for:~~ (CA) Moisture content sufficient to characterize the unit; ~~using ASTM method D2216; and~~

(D) Shear strength and consolidation testing on soft or potentially weak layers, for use in stability and settlement analyses; and

(E) Hydraulic conductivity by an ~~in~~-in-situ field method or laboratory method. ~~All samples collected for the determination of permeability shall be collected by standard ASTM procedures;~~

(~~iii~~^v) All boring logs ~~shall~~must be submitted with the following information:

(A) Soil and rock descriptions and classifications;

(B) Method of sampling;

(C) Sample depth, interval and recovery;

(D) Date of boring;

(E) Water level measurements;

(F) Standard penetration number ~~following approved ASTM method D1586-67~~;

(G) Boring location; and

(H) Soil test data (in report text or on log).

(~~iv~~^v) All borings not converted to monitoring wells or piezometers ~~shall~~must be carefully backfilled, plugged, and recorded in accordance with WAC 173-160-420;

(~~v~~ⁱ) During the borehole drilling program, any on-site drilling and lithologic unit identification ~~shall~~must be performed under the direction of a licensed professional in accordance with the requirements of chapter 18.220 RCW, Geologists, who is trained to sample and identify soils and bedrock lithology;

(~~vi~~ⁱ) An on-site horizontal and vertical reference datum ~~shall~~must be established during the site characterization. The standards

for land boundary surveys and geodetic control surveys and guidelines for the preparation of land descriptions ~~shall~~ must be used to establish borehole and monitoring well coordinates and casing elevations from the reference datum; and

(viii) Other methods, including geophysical techniques, may be used to supplement the borehole program to ensure that a sufficient hydrogeologic site characterization is accomplished.

(c) A site-specific flow path analysis that includes:

(i) The depths to groundwater and hydrostratigraphic unit(s) including transmissive and confining units; and

(ii) Potentiometric surface elevations and contour maps, direction and rate of horizontal and vertical groundwater flow.

(d) Identification of the quantity, location, and construction (where available) of private and public wells within a two thousand-foot radius, measured from the ~~site boundaries~~ edge of the solid waste handling unit;

(e) Tabulation of all water rights for groundwater and surface water within a two thousand-foot ~~(610 m)~~ radius, measured from site boundaries;

(f) Identification and description of all surface waters within a one-mile ~~(1.6 km)~~ radius, measured from ~~site boundaries~~ the edge of the solid waste handling unit;

(g) A summary of all previously collected site groundwater and surface water analytical data, and for expanded facilities, identification of impacts of the existing facility upon ground and surface waters from landfill leachate discharges to date;

(h) Calculation of a site water balance;

(i) Conceptual design of groundwater ~~and surface water~~ monitoring systems, and where applicable surface water and vadose zone monitoring systems, including proposed construction and installation methods for these systems;

(j) Description of land use in the area, including nearby residences;

(k) A topographic map of the site and drainage patterns, including an outline of the ~~waste management area~~ solid waste handling unit, property boundary, the proposed location of groundwater monitoring wells, and township and range designations; and

(l) Geologic cross sections.

(3) **Groundwater monitoring - System design.**

(a) The groundwater monitoring system design and report ~~shall~~ must be submitted with the permit application and ~~shall~~ must meet the following criteria:

(i) A sufficient number of monitoring wells ~~shall~~ must be installed at appropriate locations and depths to yield representative groundwater samples from those hydrostratigraphic units which have been identified during ~~in the~~ site characterization as the earliest potential contaminant flowpaths;

(ii) Represent the quality of groundwater at the point of compliance, and include at a minimum:

(A) A groundwater flow path analysis which supports why the chosen hydrostratigraphic unit is capable of providing an early warning detection of any groundwater contamination;

(B) Documentation and calculations of all of the following information:

(I) Hydrostratigraphic unit thickness including confining units and transmissive units;

(II) Vertical and horizontal groundwater flow directions including seasonal, man-made, or other short-term fluctuations in groundwater flow;

(III) Stratigraphy and lithology;

(IV) Hydraulic conductivity; and

(V) Porosity and effective porosity.

(b) Upgradient monitoring wells (background wells) ~~shall~~must meet the following performance criteria:

(i) ~~Shall~~Must be installed in groundwater that has not been affected by leakage from a ~~landfill unit~~solid waste handling unit; or

(ii) If hydrogeologic conditions do not allow for the determination of an upgradient monitoring well, then sampling at other monitoring wells which provide representative background groundwater quality may be allowed.

(c) Downgradient monitoring wells (compliance wells) ~~shall~~must meet the following performance criteria:

(i) Represent the quality of groundwater at the point of compliance;

(ii) Be installed as close as practical to the point of compliance; and

(iii) When physical obstacles preclude installation of groundwater monitoring wells at the ~~relevant~~ point of compliance ~~at the landfill unit or solid waste facility~~, the downgradient monitoring system may be installed at the closest practical distance hydraulically down-

gradient from the ~~relevant~~ point of compliance that ensures detection of groundwater contamination in the chosen hydrostratigraphic unit.

(d) All monitoring wells ~~shall~~ must be constructed in accordance with chapter 173-160 WAC, Minimum standards for construction and maintenance of wells, and chapter 173-162 WAC, Regulation and licensing of well contractors and operators.

(e) The owner or operator ~~shall~~ must notify the jurisdictional health department and the department of any proposed changes to the design, installation, development, and decommission of any monitoring wells, piezometers, and other measurement, sampling, and analytical devices. Proposed changes ~~shall~~ must not be implemented prior to the jurisdictional health department's written approval. Upon completing changes, all documentation, including date of change, new monitoring well location maps, boring logs, and monitoring well diagrams, ~~shall~~ must be submitted to the jurisdictional health department and ~~shall~~ must be placed in the operating record.

(f) All monitoring wells, piezometers, and other measurement, sampling, and analytical devices ~~shall~~ must be operated and maintained so that they perform to design specifications throughout the life of the monitoring program.

(4) Groundwater monitoring - Sampling and analysis plan.

(a) The groundwater monitoring program ~~shall~~must include ~~con-~~
~~sistent~~ sampling and analysis procedures that are designed to provide
monitoring results that are representative of groundwater quality
within ~~at the upgradient and downgradient~~ site monitoring wells. In
addition to monitoring wells, facilities with hydraulic gradient con-
trol and/or leak detection systems will provide representative ground-
water samples from those systems. The owner or operator ~~shall~~must
submit a compliance sampling and analysis plan as part of the permit
application. The plan ~~shall~~must include procedures and techniques
for:

- (i) Sample collection and handling;
- (ii) Sample preservation and shipment;
- (iii) Analytical constituents and procedures;
- (iv) Chain-of-custody control;
- (v) Quality assurance and quality control;
- (vi) Decontamination of drilling and sampling equipment;
- (vii) Procedures to ensure employee health and safety during well
installation and monitoring; ~~and~~
- (viii) Well operation and maintenance procedures; and
- (ix) Statistical analysis methods.

(b) Facilities collecting leachate ~~shall~~must include leachate sampling and analysis as part of ~~compliance monitoring~~the plan in (a) of this subsection.

(c) The groundwater monitoring program ~~shall~~must include sampling and analytical methods that are appropriate for groundwater samples. The sampling and analytical methods ~~shall~~must provide sufficient sensitivity, precision, selectivity and limited bias ~~such~~so that changes in groundwater quality can be detected and quantified. All samples ~~shall~~must be sent to an accredited laboratory for analyses in accordance with chapter 173-50 WAC, Accreditation of environmental laboratories.

(d) Groundwater elevations ~~shall~~must be measured in each monitoring well immediately prior to sampling purging, each time groundwater is sampled. The owner or operator ~~shall~~must determine the rate and direction of groundwater flow each time groundwater is sampled. All groundwater elevations ~~shall~~must be determined by a method that ensures measurement to the one hundredth of a foot ~~(3 mm)~~ relative to the top of the well casing.

(e) Groundwater elevations in monitored wells ~~that monitor the same landfill unit~~ ~~shall~~must be measured within a period of time short enough to avoid any groundwater fluctuations which could pre-

clude the accurate determination of groundwater flow rate and direction.

(f) The owner or operator ~~shall~~must establish background groundwater quality in all upgradient ~~each upgradient and downgradient~~ monitoring wells, and all future down-gradient monitoring wells at landfill sites where waste has not yet been deposited. Background groundwater quality ~~shall~~must be based upon a minimum of eight independent samples. Samples ~~shall~~must be collected for each monitoring well and ~~shall~~must be analyzed for parameters required in the permit for the first year of groundwater monitoring. Each independent sampling event ~~shall~~must be no ~~less~~later than one month after the previous sampling event.

(g) Groundwater quality ~~shall~~must be determined at each monitoring well at least quarterly during the active life of the ~~solid waste facility~~landfill or impoundment, including closure and the post-closure period. More frequent monitoring may be required to protect downgradient water supply wells. Groundwater monitoring ~~shall~~must begin after background groundwater quality has been established. Laboratory analysis methods must have sufficiently low detection limits, when practical, to determine whether constituent concentrations exceed chapter 173-200 WAC, Water quality standards for groundwaters of the

state of Washington, criteria. The owner or operator may propose an alternate groundwater monitoring frequency; however, groundwater monitoring frequency must be no less than semiannually. The owner or operator must apply for a permit modification or must apply during the renewal process for changes in groundwater monitoring frequency making a demonstration based on the following information:

(i) A characterization of the hydrostratigraphic unit(s) including the unsaturated zone, transmissive and confining units and include the following:

(A) Hydraulic conductivity; and

(B) Groundwater flow rates.

(ii) Minimum distance between upgradient edge of the solid waste landfill and/or the impoundment ~~handling unit~~ and downgradient monitoring wells (minimum distance of travel); and

(iii) Contaminant fate and transport characteristics.

(h) All facilities ~~shall~~ must test for the following parameters:

(i) Field parameters:

(A) pH;

(B) Specific conductance;

(C) Temperature; and

(D) Static water level; .

(ii) Geochemical indicator parameters:

(A) Alkalinity (as Ca CO₃);

(B) Bicarbonate (HCO₃);

(C) Dissolved Calcium (Ca);

(D) Chloride (Cl);

(E) Total and Dissolved Iron (Fe);

(F) Total and Dissolved Magnesium (Mg);

(G) Total and Dissolved Manganese (Mn);

(H) Nitrate (NO₃);

(I) Dissolved potassium

(J) Dissolved Sodium (Na); and

(K) Sulfate (SO₄).

(iii) Leachate indicators:

(A) Ammonia (NH₃-N);

(B) Total organic carbon (TOC); and

(C) Total dissolved solids (TDS).

(i) If other pertinent constituents are identified ~~Based~~ upon the site specific waste profile and/or ~~also the~~ leachate characteristics for lined facilities, if tested, the owner or operator ~~shall~~ must propose those additional constituents to include in the monitoring

program. The jurisdictional health department ~~shall~~will specify the additional constituents in the solid waste permit.

(j*) Testing at landfills ~~shall~~must be performed in accordance with "*Test Methods for Evaluating Solid Waste, Physical/Chemical Methods*," U.S. EPA Publication SW-846, or other testing methods approved by the jurisdictional health department.

(k±) Maximum contaminant levels (MCL) for groundwater are those specified in chapter 173-200 WAC, Water quality standards for groundwaters of the state of Washington.

(5) Groundwater monitoring - Data analysis, notification and reporting.

(a) The results of monitoring well sample analyses as required by subsections (4)(h) and (4)(i) of this section ~~shall~~must be evaluated using an appropriate statistical procedure(s), as approved by the jurisdictional health department. Statistical procedure(s) used must be proposed in the sampling and analysis plan, and must be capable of determining whether ~~during the permitting process, to determine if~~ a significant increase over background has occurred. Selection of parameters undergoing statistical analysis, as specified in the solid waste permit, must be based on site-specific leachate analyses, synthetic precipitation leaching procedure (SPLP) results, or toxicity charac-

teristic leaching procedure (TCLP) results, if available, and typically at least include pH, specific conductance, chloride, iron, manganese, nitrate, sulfate, ammonia, and total dissolved solids. ~~The statistical procedure(s) used shall be proposed in the sampling and analysis plan and be designed specifically for the intended site, or prescriptive statistical procedures from appropriate state and federal guidance may be used.~~

(b) If statistical analyses determine a significant increase over background:

(i) The owner or operator ~~shall~~must:

(A) Notify the jurisdictional health department and the department of this finding within thirty days of receipt of the sampling data. The notification ~~shall~~must indicate what parameters or constituents have shown statistically significant increases;

(B) Within thirty days, ~~rImmediately rResample~~ parameter(s) the groundwater for the parameter(s) showing statistically significant increase(s) in the monitoring well(s) where the statistically significant increase has occurred; and

(C) Establish a groundwater protection standard based on ~~using~~ the groundwater quality criteria of chapter 173-200 WAC, Water quality standards for groundwaters of the state of Washington. If the back-

ground concentration level established in the facility's monitoring record for a constituent is greater than the numeric criterion for the constituent in chapter 173-200 WAC, Water quality standards for groundwaters of the state of Washington, the owner or operator must use the background concentration as the protection standard; ~~Constituents for which the background concentration level is higher than the protection standard, the owner or operator shall use background concentration for constituents established in the facility's monitoring record.~~

(ii) The owner or operator may demonstrate that a source other than a landfill unit or surface impoundment ~~solid waste facility~~ caused the contamination, or the statistically significant increase resulted from error in sampling, analyses, statistical evaluation, or natural variation in groundwater quality. If ~~such~~ a demonstration cannot be made and the concentrations or levels of the constituents ~~(A) Meet the criteria established by chapter 173-200 WAC, Water quality standards for groundwaters of the state of Washington, the owner or operator shall:~~

~~(I) Assess and evaluate sources of contamination; and~~

~~(II) Implement remedial measures in consultation with the jurisdictional health department and the department.~~ (B) Exceed the crite-

ria established by chapter 173-200 WAC, Water quality standards for groundwaters of the state of Washington, the owner or operator ~~shall~~must:

(~~A~~I) Characterize the chemical composition of the release and the contaminant fate and transport characteristics by installing additional monitoring wells;

(~~B~~II) Assess and, if necessary, implement appropriate intermediate measures to remedy the release. The measures ~~shall~~must be approved by the jurisdictional health department and the department~~for applicable WAC 173-350-330 surface impoundments and the department~~; and

(~~H~~IC) Evaluate, select, and implement remedial actions in accordance with ~~measures as required by~~ chapter 173-340 WAC, ~~the Model Toxics toxics Control control Act-Cleanup cleanup regulation, where applicable~~. The roles of the jurisdictional health department and the department in remedial action are further defined by WAC 173-350-900.

(c) The owner or operator ~~shall~~must submit ~~a copy of~~ an annual report to the jurisdictional health department and the department by April 1st of each year. ~~The jurisdictional health department may require~~However, more frequent reporting may be required~~based on the results of groundwater monitoring~~. Reports may be submitted to the de-

partment in either digital format or hard copy. The annual report ~~shall~~must summarize and interpret the following information:

(i) All groundwater monitoring data, including laboratory and field data for the sampling periods;

(ii) Statistical results and/or any statistical trends including any findings of any statistical increases for the year and time/concentration series plots;

(iii) A summary of concentrations above the maximum contaminant levels of chapter 173-200 WAC, Water quality standards for groundwaters of the state of Washington;

(iv) Static water level readings for each monitoring well for each sampling event;

(v) Potentiometric surface elevation maps depicting ~~groundwater flow rate and flow~~ direction for each sampling event; ~~noting any trends or changes during the year;~~

(vi) Groundwater flow velocity calculations for each sampling event, and a discussion of any trends or changes during the year;

(vii) Geochemical evaluation including cation-anion balancing and trilinear and/or stiff diagraming for each sampling event noting any changes or trends in water chemistry for each well during the year; and

(viii) Leachate, hydraulic gradient control and/or leak detection system results, if applicable, ~~analyses where appropriate~~ for each sampling event.

(d) All groundwater monitoring data must be submitted consistent with procedures specified by the department. Unless otherwise specified by the department, all groundwater monitoring data for the previous year must be submitted by April 1st of each year in an electronic form capable of being transferred into the department's data management system.

[Statutory Authority: Chapter 70.95 RCW. WSR 03-03-043 (Order 99-24), § 173-350-500, filed 1/10/03, effective 2/10/03.]

WAC 173-350-600 Financial assurance requirements.

(1) Financial assurance requirements - Applicability.

(a) This section is applicable to:

(~~a~~i) Waste tires storage facilities ~~regulated under~~ subject to WAC 173-350-350;

(~~b~~ii) Moderate risk waste facilities storing more than nine thousand gallons of MRW on-site, excluding used oil, ~~regulated under~~ subject to WAC 173-350-360; and

(eiii) Limited purpose landfills ~~regulated under~~subject to WAC 173-350-400.

~~(2) Financial assurance requirements - Definitions. For the purposes of this section, the following definitions apply:~~

~~(a) Public facility means a publicly or privately owned facility that accepts solid waste generated by other persons.~~

~~(b) Private facility means a privately owned facility maintained on private property solely for the purpose of managing waste generated by the entity owning the site.~~

(32) **Financial assurance requirements - Instrument options.** Financial assurance options are available based on facility type as ~~de-~~defined specified in WAC 173-350-600(23), ~~ownership and permittee~~. Contents of all instruments must be acceptable to the jurisdictional health department. The following instrument options exist:

(a) Reserve accounts ~~that are managed as either:~~ (i) Consisting of cash and investments accumulated in a reserve fund and restricted for the purpose of closure or post-closure care; ~~activities identified in the closure or post closure plans, with the equivalent amount of fund balance reserved in the fund; or~~

~~(ii) Cash and investments held in a nonexpendable trust fund.~~

(b) Cash and investments in a trust fund ~~. Trust funds~~ to receive, manage, and disburse funds for activities identified in the approved closure and post-closure plans. Trust funds ~~shall~~ must be established with an entity that has authority to act as a trustee and whose trust operations are regulated and examined by a federal or state agency;

(c) Surety bond(s) issued by a surety company listed as acceptable in Circular 570 of the United States Treasury Department. A standby trust fund for closure or post-closure ~~shall~~ must also be established by the owner or operator to receive any funds that may be paid by the operator or surety company. The surety ~~shall~~ must become liable for the bond obligation if the owner or operator fails to perform as guaranteed by the bond. The surety may not cancel the bond until at least one hundred twenty days after the owner or operator, the jurisdictional health department, and the department have received notice of cancellation. If the owner or operator has not provided alternate financial assurance acceptable under this section within ninety days of the cancellation notice, the surety ~~shall~~ must pay the amount of the bond into the standby closure or post-closure trust account. The following types of surety bonds are options:

(i) Surety bond; or

(ii) Surety bond guaranteeing that the owner or operator will perform final closure or post-closure activities.

(d) Irrevocable letter of credit issued by an entity ~~which~~ that has the authority to issue letters of credit and whose letter of credit operations are regulated and examined by a federal or state agency. Standby trust funds for closure and post-closure ~~shall~~ must also be established by the owner or operator to receive any funds deposited by the issuing institution resulting from a draw on the letter of credit. The letter of credit ~~shall~~ must be irrevocable and issued for a period of at least one year, and automatically renewed annually, unless the issuing institution notifies the owner or operator, the jurisdictional health department, and the department at least one hundred twenty days before the current expiration date. If the owner or operator fails to perform activities according to the closure or post-closure plan and permit requirements, or if the owner or operator fails to provide alternate financial assurance acceptable to the jurisdictional health department within ninety days after notification that the letter of credit will not be extended, the jurisdictional health department may require that the financial institution provide the funds from the letter of credit to the jurisdictional health department to be used to complete the required closure and post-closure activities;

(e) Insurance policies issued by an insurer who is licensed to transact the business of insurance or is eligible as an excess or surplus line insurer in one or more states, ~~the content of which~~ and meeting the following:

(i) Guarantees that the funds will be available to complete those activities identified in the approved closure or post-closure plans;

(ii) Guarantees that the insurer will be responsible for paying out funds for those activities;

(iii) Provides that the insurance is automatically renewable and that the insurer may not cancel, terminate, or fail to renew the policy except for failure to pay the premium;

(iv) Provides that if there is a failure to pay the premium, the insurer may not terminate the policy until at least one hundred twenty days after the notice of cancellation has been received by the owner or operator, the jurisdictional health department and the department;

(v) Provides that termination of the policy may not occur and the policy ~~shall~~ must remain in full force and effect if:

(A) The jurisdictional health department determines the facility has been abandoned;

(B) Closure has been ordered by the jurisdictional health department or a court of competent jurisdiction;

(C) The owner or operator has been named as debtor in a voluntary or involuntary proceeding under Title 11 U.S.C., Bankruptcy; or

(D) The premium due is paid.

(vi) The owner or operator is required to maintain the policy in full force and until an alternative financial assurance guarantee is provided or when the jurisdictional health department has verified that closure, and/or post-closure, as appropriate, have been completed in accordance with the approved closure or post-closure plan; and

(vii) For purposes of this rule, "captive" insurance companies as defined in WAC 173-350-100, are not an acceptable insurance company.

(f) Financial Test/corporate guarantee allows for a private corporation meeting the financial test to provide a corporate guarantee those activities identified in the closure and post-closure plans will be completed;

(i) To qualify, a private corporation owner or operator ~~shall~~ must meet the criteria of either option A or B:

(A) Option A - to pass the financial test under this option the private corporation ~~shall~~ must have:

(I) Two of the following three ratios: A ratio of total liabilities to net worth less than 2.0; a ratio of the sum of net income plus depreciation, depletion, and amortization to total liabilities greater

than 0.1; or a ratio of current assets to current liabilities greater than 1.5;

(II) Net working capital and tangible net worth each at least six times the sum of the current closure and post-closure cost estimates;

(III) Tangible net worth of at least ten million dollars; and

(IV) Assets in the United States amounting to at least ninety percent of its total assets or at least six times the sum of the current closure and post-closure cost estimates.

(B) Option B - to pass this alternative financial test, the private corporation ~~shall~~must have:

(I) A current rating of AAA, AA, A, or BBB as issued by Standard and Poor's or Aaa, Aa, A, or Baa as issued by Moody's;

(II) Tangible net worth at least six times the sum of the current closure and post-closure cost estimates;

(III) Tangible net worth of at least ten million dollars; and

(IV) Assets in the United States amounting to at least ninety percent of its total assets or at least six times the sum of the current closure and post-closure cost estimates.

(ii) The owner or operator's chief financial officer ~~shall~~must provide a corporate guarantee that the corporation passes the financial test at the time the closure plan is filed. This corporate guar-

antee ~~shall~~must be reconfirmed annually ninety days after the end of the corporation's fiscal year by submitting to the jurisdictional health department a letter signed by the chief financial officer that:

(A) Provides the information necessary to document that the owner or operator passes the financial test;

(B) Guarantees that the funds to finance closure and post-closure activities according to the closure or post-closure plan and permit requirements are available;

(C) Guarantees that closure and post-closure activities will be completed according to the closure or post-closure plan and permit requirements;

(D) Guarantees that within thirty days if written notification is received from the jurisdictional health department that the owner or operator no longer meets the criteria of the financial test, the owner or operator ~~shall~~must provide an alternative form of financial assurance consistent with the requirements of this section;

(E) Guarantees that the owner or operator's chief financial officer will notify in writing the jurisdictional health department and the department within fifteen days any time that the owner or operator no longer meets the criteria of the financial test or is named as

debtor in a voluntary or involuntary proceeding under Title 11 U.S.C.,
Bankruptcy;

(F) Acknowledges that the corporate guarantee is a binding obligation on the corporation and that the chief financial officer has the authority to bind the corporation to the guarantee;

(G) Attaches a copy of the independent certified public accountant's report on examination of the owner or operator's financial statements for the latest completed fiscal year; and

(H) Attaches a special report from the owner or operator's independent certified public accountant (CPA) stating that the CPA has reviewed the information in the letter from the owner or operator's chief financial officer and has determined that the information is true and accurate.

(iii) The jurisdictional health department may, based on a reasonable belief that the owner or operator no longer meets the criteria of the financial test, require reports of the financial condition at any time in addition to the annual report. The jurisdictional health department will specify the information required in the report. If the jurisdictional health department finds, on the basis of ~~such~~the reports or other information, that the owner or operator no longer meets the criteria of the financial test, the owner or operator ~~shall~~must

provide an alternative form of financial assurance consistent with the requirements of this section, within thirty days after notification by the jurisdictional health department;

(iv) If the owner or operator fails to perform final closure and, where required, provide post-closure care of a facility covered by the guarantee in accordance with the approved closure and post-closure plans, the guarantor will be required to complete the appropriate activities;

(v) The guarantee will remain in force unless the guarantor sends notice of cancellation by certified mail to the owner or operator, the jurisdictional health department, and the department. Cancellation may not occur, however, during the one hundred twenty days beginning on the date of receipt of the notice of cancellation by the owner or operator, the jurisdictional health department, and the department; and

(vi) If the owner or operator fails to provide alternate financial assurance as specified in this section and obtain the written approval of ~~such~~ alternate assurance from the jurisdictional health department within ninety days after receipt of a notice of cancellation of the guarantee from the guarantor, the guarantor will provide ~~such~~ alternative financial assurance in the name of the owner or operator.

(43) **Financial assurance requirements - Eligible financial assurance instruments.** The financial assurance instruments identified in subsection (32) of this section are available for use based on facility category and whether the permittee is a public or private entity as follows:

(a) For a public facility, ~~as defined in subsection (2) of this section~~ when the permittee is a public entity, the following options are available:

- (i) Reserve account;
- (ii) Trust ~~account~~ fund;
- (iii) Surety bond (payment or performance); or
- (iv) Insurance.

(b) For a public facility, ~~as defined in subsection (2) of this section, where~~ when the permittee is a private entity, the following options are available:

- (i) Trust ~~account~~ fund;
- (ii) Surety bond (payment or performance);
- (iii) Letter of credit; or
- (iv) Insurance.

(c) For private facilities, ~~as defined in subsection (2) of this section~~ the following options are available:

- (i) Trust ~~account~~fund;
- (ii) Surety bond (payment or performance);
- (iii) Letter of credit;
- (iv) Insurance; or
- (v) Financial test/corporate guarantee.

(54) Financial assurance requirements - Cost estimate for closure. The owner or operator ~~shall~~must:

(a) Prepare a detailed written closure cost estimate as part of the facility closure plan. The closure cost estimate ~~shall~~must:

(i) Be stated in current dollars and represent the cost ~~of closing the facility~~(ii) ~~Provide a detailed written estimate, of the cost of hiring a third party~~ under a contract subject to chapter 39.12 RCW, Prevailing wages on public works, to close the facility at any time during the active life when the extent and manner of its operation would make closure the most expensive in accordance with the approved closure plan;

~~(iii)~~ Project intervals for a schedule for withdrawal of closure funds from the closure financial assurance instrument to complete the activities in the approved closure plan; and

~~(iv-iii)~~ Not ~~reduce by allowance for salvage value of equipment, solid waste, or the resale value of property or land;~~ use any sale

value of salvage, equipment, or property or land to offset or reduce the estimated costs of activities conducted in compliance with the approved closure plan.

(b) Prepare a new closure cost estimate in accordance with (a) of this subsection whenever:

(i) Changes in ~~operating plans~~plans of operation or facility design affect the closure plan; or

(ii) There is a change in the expected year of closure that affects the closure plan~~.~~.

(c) Review the closure cost estimate ~~_by March 1st of each calendar year~~annually. The review ~~shall~~must be submitted to the jurisdictional health department, with a copy to the department, by April 1st of each calendar year stating that the review was completed and the findings of the review. The review will examine all factors, including inflation, involved in estimating the closure cost. Any cost changes ~~shall~~must be factored into a revised closure cost estimate and submitted ~~the revised cost estimate~~ to the jurisdictional health department for review and approval. The jurisdictional health department ~~shall~~must evaluate each cost estimate for completeness, and may accept, or require a revision of the cost estimate in accordance with its evaluation. If the jurisdictional health department approves a

change in the closure cost estimate, the financial assurance instrument must be revised accordingly and submitted to the jurisdictional health department.

(~~5~~6) **Financial assurance requirements - Cost estimate for post-closure.** The owner or operator ~~shall~~must:

(a) ~~Prepare a written post closure cost estimate as part of the facility post closure plan. The post closure cost estimate shall:~~

~~(i) Be in current dollars and represent the total cost of completing post closure activities for the facility for a twenty year post closure period or a time frame determined by the jurisdictional health department;~~

~~(ii) Provide a detailed written estimate, in current dollars, of the cost of hiring a third party to conduct post closure care for the facility in compliance with the post closure plan;~~

~~(iii) Project intervals for withdrawal of post closure funds from the post closure financial assurance instrument to complete the activities identified in the approved post closure plan; and~~

~~(iv) Not reduce by allowance for salvage, value of equipment, or resale value of property or land.~~Prepare a detailed written post-closure cost estimate as part of the facility post-closure plan. The post-closure estimate must:

(i) Be stated in current dollars and represent the cost of hiring a third party under a contract subject to chapter 39.12 RCW, Prevailing wages on public works, to conduct post-closure care activities in compliance with the approved post-closure plan for the facility;

(ii)Project a schedule for withdrawal of post-closure funds from the post-closure financial assurance instrument to complete the activities identified in the post-closure plan; and

(iii)Not use any sale value of salvage, equipment, or property or land to offset or reduce the estimated costs of activities conducted in compliance with the post-closure plan.

(b) Prepare a new post-closure cost estimate for the remainder of the post-closure care period in accordance with (a) of this subsection, whenever a change in the post-closure plan increases or decreases the cost of post-closure care; and

(c) During the operating life of the facility, the owner or operator must review the post-closure cost estimate ~~by March 1st of each calendar year~~ annually. The review ~~will~~ must be submitted to the jurisdictional health department, with a copy to the department by April 1st of each calendar year stating that the review was completed and the finding of the review. The review ~~shall~~ must examine all factors, including inflation, involved in estimating the post-closure cost es-

time. Any cost changes must be factored into a revised post-closure cost estimate and submitted to the jurisdictional health department for review and approval. The jurisdictional health department will evaluate each cost estimate for completeness, and may accept, or require a revision of the cost estimate in accordance with its evaluation. If the jurisdictional health department approves a change in the post-closure cost estimate, the financial assurance instrument must be revised accordingly and submitted to the jurisdictional health department and a copy sent to the department.

~~Any changes in costs shall be factored into a revised post-closure cost estimate. The new estimate shall be submitted to the jurisdictional health department for approval. The jurisdictional health department shall evaluate each cost estimate for completeness, and may accept, or require a revision of the cost estimate in accordance with its evaluation.~~

(67) Financial assurance requirements - Closure/post-closure financial assurance account establishment and reporting.

(a) Closure and post-closure financial assurance funds generated ~~shall~~ must be provided to the selected financial assurance instrument at the schedule specified in the closure and post-closure plans, such that adequate closure and post-closure funds will be ~~generated~~ available

ble to ensure full implementation of the approved closure and post-closure plans.

(b) The facility owner or operator with systematic deposits ~~shall~~ must establish a procedure with the financial assurance instruments trustee for notification of nonpayment of funds to be sent to the jurisdictional health department and the department.

(c) Except for item (i) of this subdivision, ~~t~~The owner or operator satisfying the requirements of this section using a reserve or trust fund ~~shall~~ must file with the jurisdictional health department and the department, no later than April 1st of each year, an annual audit report of the financial assurance accounts established for closure and post-closure activities, and a statement of the percentage of user fees, as applicable, diverted to the financial assurance instruments, for the previous calendar year, including during each of the post-closure years.

(i) For facilities owned and operated by ~~municipal corporations~~ public entity, the audit ~~financial assurance accounts shall~~ must be ~~audited~~ conducted according to the audit schedule of the office of state auditor. The annual audit report filed with the jurisdictional health department and the department must include a ~~A~~ certification of audit completion and summary findings ~~shall be filed with the jurisdic-~~

~~tional health department and the department, including during each of the post-closure care years.~~

(ii) For facilities not owned or operated by ~~municipal corporations~~ public entity:

(A) The Annual audits ~~shall~~ must be conducted by a certified public accountant licensed in the state of Washington. The annual audit report filed with the jurisdictional health department and the department must include a certification of audit completion and summary findings; and ~~shall be filed with the jurisdictional health department and the department, including during each of the post-closure care years.~~

(B) The annual audit report ~~shall~~ must also include, as applicable, calculations demonstrating the proportion of closure or post-closure, completed during the preceding year as specified in the closure and post-closure plans.

(d) Established financial assurance accounts ~~shall~~ must not constitute an asset of the facility owner or operator.

(e) Any income accruing ~~to~~ in the established financial assurance account(s) ~~will~~ may be used at the owner's discretion upon approval ~~of~~ by the jurisdictional health department.

(~~8~~7) **Financial assurance requirements - Fund withdrawal for closure and post-closure activities.**

(a) The owner or operator will withdraw funds from the closure and/or post-closure financial assurance instrument as specified in the approved closure/post-closure plans.

(b) If the withdrawal of funds from the financial assurance instrument exceeds by more than five percent the withdrawal schedule stated in the approved closure and/or post-closure plan over the life of the permit, the closure and/or post-closure plan ~~shall~~must be amended.

(c) After verification by the jurisdictional health department of facility closure, excess funds remaining for closure in a financial assurance account ~~shall~~must be released to the facility owner or operator.

(d) After verification by the jurisdictional health department of facility post-closure, excess funds remaining for post-closure in a financial assurance account ~~shall~~must be released to the facility owner or operator.

[Statutory Authority: Chapter 70.95 RCW. WSR 03-03-043 and 03-04-103 (Order 99-24 and Order 99-24A), § 173-350-600, filed 1/10/03 and 2/4/03, effective 3/7/03 and 3/31/03.]

WAC 173-350-700 Permits and local ordinances.

(1) Permit required.

(a) Except for (b) and (c) of this subsection, nNo solid waste storage, treatment, processing, handling, recycling, or disposal facility ~~shall~~ may be maintained, established, substantially altered, expanded, or improved until the person operating or owning ~~such~~ the site has obtained a permit or permit deferral from the jurisdictional health department or a beneficial use exemption from the department pursuant to the provisions of this chapter, or is operating in compliance with all terms of a conditionally exempt solid waste handling activity identified in this chapter. Facilities operating under ~~category~~ ical ~~conditional~~ exemptions established by this chapter ~~shall~~ must meet all the conditions of ~~such~~ the exemptions or ~~will~~ may be required to obtain a permit under this chapter and may be subject to the enforcement provisions of ~~chapter~~ 70.95.315. Facilities that meet the terms and conditions for exemption under one standard may require permitting for other non-exempt activities onsite. Facilities may operate under multiple exemptions from permitting if they meet all conditions for each section. In addition, ~~P~~persons dumping or depositing solid

waste without a permit in violation of this chapter ~~shall be~~ are subject to the penalty provisions of RCW 70.95.240.

~~(b) Permits issued under this chapter are not required for remedial actions performed by the state and/or in conjunction with the United States Environmental Protection Agency to implement the Comprehensive Environmental Response Compensation and Liability Act of 1980 (CERCLA), or remedial actions taken by others to comply with a state and/or federal cleanup order, or consent decree.~~

(b) Pursuant to RCW 70.105D.090, permits issued under this chapter are not required for remedial actions performed by the department under chapter 70.105D RCW, Hazardous waste cleanup-Model toxics control act, or by a potentially liable person under a consent decree, order, or agreed order issued under chapter 70.105D RCW, Hazardous waste cleanup-Model toxics control act. However, such remedial actions must still comply with the substantive requirements of this chapter. Permits issued under this chapter are still required for independent remedial actions, as defined in chapter 70.105D.020, including those performed under the voluntary cleanup program authorized under RCW 70.105D.030(1)(i).

(c) Pursuant to section 121(1)(e) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C.

Sec. 9621(1)(e), permits issued under this chapter are not required for any removal or remedial action performed by the U.S. Environmental Protection Agency under CERCLA or by a potentially responsible party under a consent decree or administrative order issued under CERCLA. However, such removal or remedial actions must still comply with the substantive requirements of this chapter.

(~~ed~~) Any jurisdictional health department and the department may enter into an agreement providing for the exercise by the department of any power that is specified in the contract and that is granted to the jurisdictional health department under chapter 70.95 RCW, Solid waste management–Reduction and recycling. However, the jurisdictional health department ~~shall~~must have the approval of the legislative authority or authorities it serves before entering into any ~~such~~–agreement with the department.

(2) **Local ordinances.** Each jurisdictional health department ~~shall~~must adopt local ordinances implementing this chapter not later than one year after the effective date of this chapter, and ~~shall~~must file the ordinances with the department within ninety days following local adoption. Local ordinances ~~shall~~must not be less stringent than this chapter, but may include additional requirements provided additional requirements do not conflict with state or federal statutes.

[Statutory Authority: Chapter 70.95 RCW. WSR 03-03-043 (Order 99-24), § 173-350-700, filed 1/10/03, effective 2/10/03.]

WAC 173-350-710 Permit application and issuance.

(1) Permit application process.

(a) Any owner or operator required to obtain a solid waste permit ~~shall~~must apply ~~for a permit from~~to the jurisdictional health department on forms prescribed by the department. All permit application filings ~~shall~~must include two copies of the application. An application ~~shall~~may not be considered complete by the jurisdictional health department until all the information required under WAC 173-350-715 and the applicable section(s) of this chapter have been submitted.

(b) The jurisdictional board of health ~~department~~ may establish reasonable fees for permits, permit modifications, and renewal of permits. All permit fees collected by the health department ~~shall~~must be deposited in the account from which the health department's operating expenses are paid.

(c) Once the jurisdictional health department determines that an application for a permit is complete, it ~~shall~~must:

(i) Refer one copy to the appropriate regional office of the department for review and comment and include correspondence indicating

that the jurisdictional health department has determined that the application is complete;

(ii) Investigate every application to determine whether the ~~facilities~~facility meets all applicable laws and regulations, ~~conform to~~is not in conflict with the approved comprehensive solid waste management plan and/or the approved hazardous waste management plan, and complies with all zoning requirements; and

(iii) When the application is for a permit to establish or modify a solid waste handling facility located in an area that is not under a quarantine, as defined in RCW 17.24.007, and when the facility will receive material for composting, from an area under a quarantine, the jurisdictional health department must also provide a copy of the application to the Washington state department of agriculture. The Washington state department of agriculture will review the application to determine whether it contains information demonstrating that the proposed facility presents a risk of spreading disease, plant pathogens, or pests to areas that are not under a quarantine. Within forty-five days, the Washington state department of agriculture will report its findings to the jurisdictional health department and department.

(d) Once the department has received a complete application for review, it ~~shall~~will:

(i) Ensure that the proposed ~~site or~~ facility conforms with all applicable laws and regulations including this chapter;

(ii) Ensure that the proposed ~~site or~~ facility is not in conflict with the approved comprehensive solid waste management plan and/or the approved hazardous waste management plan; and

(iii) Recommend for or against the issuance of ~~each~~ the permit by the jurisdictional health department within forty-five days of receipt of a complete application.

(2) **Permit issuance.**

(a) When the jurisdictional health department has evaluated all pertinent information, it may issue or deny a permit. The jurisdictional health department must approve or disapprove every complete solid waste permit application within ninety days of its determination that the application is complete. ~~Every solid waste permit application shall be approved or disapproved within ninety days after its receipt by the jurisdictional health department.~~ Every permit issued by a jurisdictional health department ~~shall~~ must contain specific requirements necessary for the proper operation of the permitted ~~site~~ or facility.

(b) Every permit issued ~~shall~~ may be valid for a period not to exceed five years at the discretion of the jurisdictional health de-

partment. If a permit is to be issued for longer than one year, the jurisdictional health department may hold a public hearing before making a decision.

(c) Jurisdictional health departments ~~shall~~must file all issued permits with the appropriate regional office of the department no more than seven days after the date of issuance. No solid waste permit issued pursuant to RCW 70.95.180 will be considered valid unless it has been reviewed by the department.

(d) The department ~~shall~~will review ~~the~~each permit ~~in accordance with RCW 70.95.185~~ and report its findings to the jurisdictional health department in writing within thirty days of permit issuance.

(e) ~~The jurisdictional health department is authorized to issue one permit for a location where multiple solid waste handling activities occur, provided all activities meet the applicable requirements of this chapter.~~Jurisdictional health departments may issue one solid waste handling permit covering multiple activities at the same site, or multiple solid waste handling permits may be issued for a single facility with multiple activities.

(3) Permit renewals.

(a) Prior to renewing a permit, the jurisdictional health department ~~shall~~will conduct a review as it deems necessary to ensure that

the solid waste handling activity (~~ies~~)~~facility or facilities located~~
on the site continue to:

(i) Meet the solid waste handling standards of the department;
(ii) Comply with all applicable ~~local~~laws and regulations; and
(iii) ~~Conform n~~Not in conflict with the approved solid waste management plan and/or the approved hazardous waste management plan.

(b) A jurisdictional health department ~~shall~~must approve or deny a permit renewal within forty-five days of conducting its review.

(c) Every permit renewal ~~shall~~will be valid for a period not to exceed five years at the discretion of the jurisdictional health department. If a permit is to be renewed for longer than one year, the jurisdictional health department may hold a public hearing before making a decision.

(d) Jurisdictional health departments must file all issued permit renewals with the appropriate regional office of the department not more than seven days after the date of issuance. No permit renewal issued pursuant to RCW 70.95.190 will be considered valid unless it has been reviewed by the department.

(~~de~~) The department ~~shall~~will review the renewal ~~in accordance with RCW 70.95.190~~ and report its findings to the jurisdictional

health department in writing within thirty days of issuance of the permit renewal.

~~(e) The jurisdictional board of health may establish reasonable fees for permits renewal reviewed under this section. All permit fees collected by the health department shall must be deposited in the treasury and to the account from which the health department's operating expenses are paid.~~

(4) **Permit modifications.**

(a) Any ~~significant~~ change to the operation, design, capacity, performance, or monitoring of a permitted facility ~~may~~ requires a modification to the permit. ~~The following procedures shall be followed by an owner or operator prior to making any change in facility operation, design, performance or monitoring; The facility owner or operator shall consult with the jurisdictional health department regarding the need for a permit modification;~~ A modification request must include the following information:

(i) A description of the proposed modification;

(ii) The reasons for the proposed modification;

(iii) A description of the impacts from the proposed modification

upon the solid waste facility as presently permitted;

(iv) A showing that, as modified, the solid waste facility will be capable of compliance with the applicable requirements of this regulation; and

(v) Any other information as required by the jurisdictional health department.

~~(b) The jurisdictional health department shall determine whether the proposed modification is significant. Upon such a determination, the owner or operator shall make application for a permit modification, using the process outlined in subsections (1) through (3) of this section; and~~If the jurisdictional health department and the department determine that the proposed modification is significant, the procedures of subsection (1) of this section will be followed except that:

(i) The department will report its findings to the jurisdictional health department within thirty days;

(ii) The jurisdictional health department will approve or disapprove the modification request within forty-five days after its receipt; and

(iii) If the jurisdictional health department and the department determine that the procedures of subsection (1) of this section are not necessary, any written form of communication documenting the de-

liberation and decision related to the permit modification request is sufficient.

~~(c) If a proposed change is determined to not be significant and not require a modification to the permit, the department shall be notified.~~The jurisdictional health departments must file approved modifications with the appropriate regional office of the department no more than seven days after the date of issuance. No solid waste permit modification issued pursuant to RCW 70.95.180 will be considered valid unless it has been reviewed by the department.

(5) **Inspections.**

(a) At a minimum, jurisdictional health departments must conduct annual inspections of all permitted solid waste facilities. ~~shall be performed by the jurisdictional health department, unless otherwise specified in this chapter.~~

(b) All facilities ~~and sites shall~~ must be physically inspected prior to issuing a permit, permit renewal, or permit modification.

(c) Any duly authorized representative of the jurisdictional health department may enter and inspect any property, premises or place at any reasonable time for the purpose of determining compliance with this chapter, and relevant laws and regulations. Findings ~~shall~~

must be noted and kept on file. A copy of the inspection report or annual summary ~~shall~~must be furnished to the site operator.

(6) Permit Transfers.

(a) No solid waste permit may be transferred to a new owner or operator without first obtaining approval from the jurisdictional health department by submitting an application specified by the jurisdictional health department and the department pursuant to WAC 173-350-710(1).

(b) The application must include at least the following:

(i) The name and all contact information of the new owner or operator (applicant);

(ii) A demonstration that a new owner or operator is capable of operating the facility in compliance with all the applicable requirements of this regulation and the solid waste permit conditions;

(iii) If applicable, financial assurance pursuant to WAC 173-350-600. Existing financial assurance must remain in place by the currently permitted owner or operator until this requirement is met;

(iv) An original signature pursuant to WAC 173-350-715(3); and

(v) Any other information as required by the jurisdictional health department.

(c) The jurisdictional health department is authorized to require a new solid waste permit application pursuant to all procedures of subsection (1) of this section if it determines the requirement is warranted.

(67) Permit suspension and appeals.

(a) Any permit for a solid waste handling facility ~~shall be~~is subject to suspension at any time the jurisdictional health department determines that the ~~site or the~~ solid waste handling facility is being operated in violation of this chapter, conditions of the solid waste permit, the rules of the Washington state department of agriculture, or local laws and regulations.

(b) Whenever the jurisdictional health department denies a permit or suspends a permit for a solid waste handling facility, it ~~shall~~must:

(i) Upon request of the applicant or holder of the permit, grant a hearing on ~~such~~the denial or suspension within thirty days after the request;

(ii) Provide notice of the hearing to all interested parties including the county or city having jurisdiction over the site and the department; and

(iii) Within thirty days after the hearing, notify the applicant or the holder of the permit in writing of the determination and the reasons therefore. Any party aggrieved by ~~such~~ the determination may appeal to the pollution control hearings board by filing with the board a notice of appeal within thirty days after receipt of notice of the determination of the health officer.

(c) If the jurisdictional health department denies a permit renewal or suspends a permit for an operating waste recycling facility that receives waste from more than one city or county, and the applicant or holder of the permit requests a hearing or files an appeal under this section, the permit denial or suspension ~~shall~~ will not be effective until the completion of the appeal process under this section, unless the jurisdictional health department declares that continued operation of the waste recycling facility poses a very probable threat to human health and the environment.

~~(d) Procedures for appealing beneficial use exemption determinations are contained in WAC 173-350-200 (5)(g).~~

(78) **Variances.**

(a) Any person subject to the solid waste permitting requirements of this section ~~who owns or operates a solid waste handling facility subject to a solid waste permit under WAC 173-350-700,~~ may apply to

the jurisdictional health department for a variance from any section of this chapter except that ~~No~~ variance ~~shall~~will be granted for requirements specific to chapter 70.95 RCW, Solid waste management-Reduction and recycling. Requests for variances must be made during the application process in subsection (1) or the permit modification process in subsection (4) of this section. ~~The application shall be accompanied by such information as the jurisdictional health department may require. The jurisdictional health department may grant such variance, but only after due notice or a public hearing if requested, if it finds that:~~

~~(i) The solid waste handling practices or location do not endanger public health, safety or the environment; and~~

~~(ii) Compliance with the section from which variance is sought would produce hardship without equal or greater benefits to the public.~~

(b) Any variance request must contain sufficient information and justification for the jurisdictional health department and department to determine if a variance request should be approved including a demonstration that compliance with the section from which variance is sought would produce hardship without equal or greater benefits to the public.

(c) Any variance request granted by the jurisdictional health department requires written concurrence by the department.

(d) Variances may be granted for a limited time period if deemed appropriate by the jurisdictional health department and department.

(e) All variances must be reviewed annually as part of the permit review process in 5(a) above.

~~(b) No variance shall be granted pursuant to this section until the jurisdictional health department has considered the relative interests of the applicant, other owners of property likely to be affected by the handling practices and the general public.~~

~~(c) Any variance or renewal shall be granted within the requirements of subsections (1) through (3) of this section and for time period and conditions consistent with the reasons therefore, and within the following limitations:~~

~~(i) If the variance is granted on the grounds that there is no practicable means known or available for the adequate prevention, abatement, or control of pollution involved, it shall be only until the necessary means for prevention, abatement or control become known and available and subject to the taking of any substitute or alternative measures that the jurisdictional health department may prescribe;~~

~~(ii) The jurisdictional health department may grant a variance conditioned by a timetable if:~~

~~(A) Compliance with this chapter will require spreading of costs over a considerable time period; and~~

~~(B) The timetable is for a period that is needed to comply with the chapter.~~

~~(d) An application for a variance, or for the renewal thereof, submitted to the jurisdictional health department shall be approved or disapproved by the jurisdictional health department within ninety days of receipt unless the applicant and the jurisdictional health department agree to a continuance.~~

~~(e) No variance shall be granted by a jurisdictional health department except with the approval and written concurrence of the department prior to action on the variance by the jurisdictional health department.~~

~~(89)~~ **Permit deferral.**

(a) A jurisdictional health department may, at its discretion and with the written concurrence of the department, waive the requirement that a solid waste permit be issued for a facility under this chapter by deferring to other air, water, or environmental permits issued for

the facility which provide an equivalent or superior level of environmental protection.

(b) The requirement to obtain a solid waste permit from the jurisdictional health department ~~shall~~will not be waived for any transfer station, landfill, or incinerator that receives municipal solid waste destined for final disposal.

(c) Any deferral of permitting or regulation of a solid waste facility granted by the department or a jurisdictional health department prior to June 11, 1998, ~~shall~~will remain valid and ~~shall~~will not be affected by this subsection.

(d) Any person who owns or operates ~~an applicable~~a solid waste handling facility subject to obtaining a solid waste permit may apply to the jurisdictional health department for permit deferral. Two copies of an application for permit deferral ~~shall~~must be signed by the owner or operator and submitted to the jurisdictional health department. Each application for permit deferral ~~shall~~must include:

(i) A description of the solid waste handling units for which the facility is requesting deferral;

(ii) A list of the other environmental permits issued for the facility;

(iii) A ~~demonstration that identifies each requirement of this chapter and a~~ detailed description of how the other environmental permits will provide an equivalent or superior level of environmental protection;

(iv) Evidence that the facility is ~~in conformance~~ not in conflict with the approved comprehensive solid waste management plan and/or the approved hazardous waste management plan;

(v) Evidence of compliance with chapter 197-11 WAC, SEPA rules, including the SEPA lead agency's determination; and

(vi) Other information that the jurisdictional health department or the department may require.

(e) When the permit deferral application is for a solid waste handling facility located in an area that is not under a quarantine, as defined in RCW 17.24.007, and when the facility will receive material for composting, from an area under a quarantine, the jurisdictional health department must also provide a copy of the application to the Washington state department of agriculture. The Washington state department of agriculture will review the application to determine whether it contains information demonstrating that the proposed facility presents a risk of spreading disease, plant pathogens, or pests to areas that are not under a quarantine. Within forty-five

days, the Washington state department of agriculture must report its findings to the jurisdictional health department and department.

(ef) The jurisdictional health department ~~shall~~must notify the applicant if it elects not to waive the requirement that a solid waste permit must be issued for a facility under this chapter. If the jurisdictional health department elects to proceed with permit deferral, it ~~shall~~must:

(i) ~~(i) Forward~~Refer one copy of the complete deferral application to the appropriate regional office of the department for review and written concurrence; the department for review;

(ii) Notify the permit issuing authority or authorities for the other environmental permits described in (d)(ii) of this subsection and allow ~~a~~ thirty day opportunity for comment; and

(iii) Determine if the proposed permit deferral provides an equivalent or superior level of environmental protection.

(fg) The department ~~shall~~will provide ~~a~~ written concurrence or denial for the permit deferral within forty-five days of receipt of a complete deferral application ~~report of its findings to the jurisdictional health department and recommend for or against the permit deferral. The department shall provide its findings within forty five days of receipt of a complete permit deferral application or~~ or inform

the jurisdictional health department as to the status with a schedule for its determination.

(~~g~~h) No solid waste permit deferral ~~shall~~will be effective unless the department has provided written concurrence. All requirements for solid waste permitting ~~shall~~ remain in effect until the department has provided written concurrence.

(~~h~~i) When the jurisdictional health department has evaluated all information, it ~~shall~~must provide written notification to the applicant and the department whether or not it elects to waive the requirement that a solid waste permit be issued for a facility under this chapter by deferring to other environmental permits issued for the facility. Every complete permit deferral application ~~shall~~must be approved or denied within ninety days after its receipt by the jurisdictional health department or the owner or operator ~~shall~~must be informed as to the status of the application with a schedule for final determination.

(j) The jurisdictional health department must send any approval for a permit deferral to the appropriate regional office of the department within seven days of issuance.

(~~i~~k) The jurisdictional health department ~~shall~~must revoke any permit deferral if it or the department determines that the other en-

environmental permits are providing a lower level of environmental protection than a solid waste permit. Jurisdictional health departments ~~shall~~must notify the facility's owner or operator of intent to revoke the permit deferral and direct the owner or operator to take measures necessary to protect human health and the environment and to comply with the permit requirements of this chapter.

(j1) Facilities ~~which are~~ operating under ~~the~~a solid waste permit deferral ~~of solid waste permitting~~ to other environmental permits ~~shall~~must:

(i) Allow the jurisdictional health department or the department, at any reasonable time, to inspect the solid waste handling ~~units~~facility which has~~ve~~ been granted a permit deferral;

(ii) Notify the jurisdictional health department and the department whenever changes are made to the other environmental permits identified in (d)(ii) of this subsection. This notification ~~shall~~must include a detailed description of how the changes will affect the facility's operation and ~~a demonstration~~how, as described in (d)(iii) of this subsection, ~~that~~ the amended permits continue to provide an equivalent or superior level of environmental protection to the deferred solid waste permits. If the amended permits no longer provide an equivalent or superior level of environmental protection, the fa-

cility owner or operator ~~shall~~must close the solid waste handling ~~unit~~facility or apply for a solid waste permit from the jurisdictional health department according to the procedures of subsection (1) of this section;

(iii) Notify the jurisdictional health department and the department within seven days of discovery of any violation of, or failure to comply with, the conditions of the other environmental permits identified in (d)(ii) of this subsection;

(iv) Notify the jurisdictional health department of any enforcement actions taken as a result of non-compliance with the permit(s) that have been deferred to;

(~~i~~v) Prepare and submit ~~a copy of~~ an annual report to the jurisdictional health department and the department by April 1st as required under the appropriate annual reporting sectionss of this chapter;

(vi) Operate in accordance with any other written conditions that the jurisdictional health department deems appropriate; and

(vii) ~~Shall~~ Takeust ~~take~~ any measures deemed necessary by the jurisdictional health department when the permit deferral has been revoked.

[Statutory Authority: Chapter 70.95 RCW. WSR 03-03-043 (Order 99-24),
§ 173-350-710, filed 1/10/03, effective 2/10/03.]

WAC 173-350-715 General permit application requirements.

(1) Every permit application ~~shall~~must be ~~on~~in a format ~~sup-~~pliedprescribed by the department and ~~shall~~must contain at a minimum the following information:

(a) Contact information for the facility owner, ~~and~~the facility operator, and property owner if different, including contact name, company name, mailing address, uniform business identifier number, phone number, fax number, and e-mail;

(b) Identification of the type of ~~facility~~solid waste handling activity (ies) that is to be permitted;

(c) Identification of any other permit (local, state, or federal) in effect at the site;

(d) A vicinity plan or map (having a minimum scale of 1:24,000) that ~~shall~~shows the area within one mile (1.6 km) of the property boundaries of the facility in terms of the existing and proposed zoning and land uses within that area, residences, and access roads, and other existing and proposed man-made or natural features that may impact the operation of the facility;

(e) Evidence of compliance with chapter 197-11 WAC, SEPA rules, including the SEPA lead agency's determination;

(f) Information as required under the appropriate facility permit application subsections of this chapter; and

(g) Any additional information as requested by the jurisdictional health department or the department.

(2) Engineering plans, reports, specifications, programs, and manuals submitted to the jurisdictional health department or the department ~~shall~~ must be prepared and certified by an individual licensed to practice engineering in the state of Washington, in an engineering discipline appropriate for the solid waste facility type or activity.

(3) Signature and verification of applicants:

(a) All applications for permits ~~shall~~ must be accompanied by evidence of authority to sign the application and ~~shall~~ must be signed by the owner or operator as follows:

(i) In the case of corporations, by a duly authorized principal executive officer of at least the level of vice-president; in the case of a partnership or limited partnership, by:

(A) A general partner;

(B) Proprietor; or

(C) In case of sole proprietorship, by the proprietor.

(ii) In the case of a municipal, state, or other government entity, by a duly authorized principal executive officer or elected official.

(b) Applications ~~shall~~must be signed or attested to by, or on behalf of, the owner or operator, in respect to the veracity of all statements therein; or ~~shall~~must bear an executed statement by, or on behalf of, the owner or operator to the effect that false statements made therein are made under penalty of perjury.

(c) The signature of the applicant ~~shall~~must be notarized on the permit application form.

[Statutory Authority: Chapter 70.95 RCW. WSR 03-03-043 (Order 99-24), § 173-350-715, filed 1/10/03, effective 2/10/03.]

WAC 173-350-900 Remedial action. When the owner or operator of a solid waste facility permitted under this chapter is subject to remedial action under the authority of chapter 70.105D, Hazardous waste cleanup-Model toxics control act, and ~~measures in compliance with~~ chapter 173-340 WAC, ~~the~~ Model tToxics cControl aAct--Cleanup, the roles of the jurisdictional health department and the department ~~shall~~ beare as follows:

(1) The jurisdictional health department:

(a) May participate in all negotiations, meetings, and correspondence between the owner and operator and the department in implementing the ~~model toxics control~~remedial action;

(b) May comment upon and participate in all decisions made by the department in assessing, choosing, and implementing a remedial action ~~program~~;

(c) ~~Shall~~Must require the owner or operator to continue any remaining activities for the operation, closure, and post-closure of the facility activities as appropriate under this chapter, after remedial actions ~~measures~~ are completed; ~~and~~and

(d) ~~Shall~~Must exercise its authority for permitting ~~any~~continue to regulate all solid waste facilities during construction, operation, closure handling activities at the facility that are not addressed through requirements of a remedial action conducted under any consent decree, order, or agreed order issued by the department for the implementation of the remedial action, including permit modifications that may be necessary to address impacts on solid waste handling activities due to remedial actions. ; and post-closure, that are not directly impacted by Chapter 173-340 WAC.

(2) The department:

(a) Must follow ~~shall carry out all the responsibilities~~ requirements of chapter 173-340, Model toxics control act-Cleanup, regarding permits and exemptions from applicable local, state, and federal laws to ensure that the remedial action complies with the substantive provisions of chapter 70.95 RCW, Solid waste management-Reduction and recycling, and the substantive provisions of any laws requiring or authorizing local government permits or approvals; and ~~assigned to it by chapter 70.105D RCW, Hazardous waste cleanup Model Toxics Control Act~~

(b) Must review and comment on any solid waste permitting activities conducted by the jurisdictional health department regarding the facility.

(3) Nothing in this section is intended to prohibit a jurisdictional health department from charging a fee to the person conducting the remedial action to defray the costs of services rendered relating to the substantive requirements for the remedial action.

[Statutory Authority: Chapter 70.95 RCW. WSR 03-03-043 (Order 99-24), § 173-350-900, filed 1/10/03, effective 2/10/03.]

~~WAC 173-350-990 Criteria for inert waste.~~

~~(1) Criteria for inert waste — Applicability. This section provides the criteria for determining if a solid waste is an inert waste. Dangerous wastes regulated under chapter 173-303 WAC, Dangerous waste regulation, PCB wastes regulated under 40 C.F.R. Part 761, Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions, and asbestos-containing waste regulated under federal 40 C.F.R. Part 61 rules are not inert waste. For the purposes of determining if a solid waste meets the criteria for an inert waste a person shall:~~

~~(a) Apply knowledge of the waste in light of the materials or process used and potential chemical, physical, biological, or radiological substances that may be present; or~~

~~(b) Test the waste for those potential substances that may exceed the applicable criteria. A jurisdictional health department may require a person to test a waste to determine if it meets the applicable criteria. Such testing may be required if the jurisdictional health department has reason to believe that a waste does not meet the applicable criteria or has not been adequately characterized. Testing shall be performed in accordance with:~~

~~(i) "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," U.S. EPA Publication SW-846; or~~

~~(ii) Other testing methods approved by the jurisdictional health department.~~

~~(2) Criteria for inert waste — Listed inert wastes. For the purpose of this chapter, the following solid wastes are inert wastes, provided that the waste has not been tainted, through exposure from chemical, physical, biological, or radiological substances, such that it presents a threat to human health or the environment greater than that inherent to the material:~~

~~(a) Cured concrete that has been used for structural and construction purposes, including embedded steel reinforcing and wood, that was produced from mixtures of Portland cement and sand, gravel or other similar materials;~~

~~(b) Asphaltic materials that have been used for structural and construction purposes (e.g., roads, dikes, paving) that were produced from mixtures of petroleum asphalt and sand, gravel or other similar materials. Waste roofing materials are not presumed to be inert;~~

~~(c) Brick and masonry that have been used for structural and construction purposes;~~

~~(d) Ceramic materials produced from fired clay or porcelain;~~

~~(e) Glass, composed primarily of sodium, calcium, silica, boric oxide, magnesium oxide, lithium oxide or aluminum oxide. Glass pre-~~

~~sumed to be inert includes, but is not limited to, window glass, glass containers, glass fiber, glasses resistant to thermal shock, and glass ceramics. Glass containing significant concentrations of lead, mercury, or other toxic substance is not presumed to be inert; and~~

~~(f) Stainless steel and aluminum.~~

~~(3) Criteria for inert waste — Inert waste characteristics. This subsection provides the criteria for determining if a solid waste not listed in subsection (2) of this section is an inert waste. Solid wastes meeting the criteria below shall have comparable physical characteristics and comparable or lower level of risk to human health and the environment as those listed in subsection (2) of this section.~~

~~(a) Inert waste shall have physical characteristics that meet the following criteria. Inert waste shall:~~

~~(i) Not be capable of catching fire and burning from contact with flames;~~

~~(ii) Maintain its physical and chemical structure under expected conditions of storage or disposal including resistance to biological and chemical degradation; and~~

~~(iii) Have sufficient structural integrity and strength to prevent settling and unstable situations under expected conditions of storage or disposal.~~

~~(b) Inert waste shall not contain chemical, physical, biological, or radiological substances at concentrations that exceed the following criteria. Inert waste shall not:~~

~~(i) Be capable of producing leachate or emissions that have the potential to negatively impact soil, groundwater, surface water, or air quality;~~

~~(ii) Pose a health threat to humans or other living organisms through direct or indirect exposure; or~~

~~(iii) Result in applicable air quality standards to be exceeded, or pose a threat to human health or the environment under potential conditions during handling, storage, or disposal.~~

~~{Statutory Authority: Chapter 70.95 RCW. WSR 03 03 043 (Order 99-24), § 173-350-990, filed 1/10/03, effective 2/10/03.}~~

WAC 173-350-995 Soil and sediment use criteria.

(1) Soil and sediment use criteria - Applicability.

(a) These standards provide criteria for managing impacted soil and impacted sediment on or into the ground in a manner that is not subject to regulation as solid waste. Management of impacted soil and impacted sediment consistent with criteria in this section is not solid waste handling. Management of impacted soil or impacted sediment

that is not consistent with criteria in this section is solid waste handling and subject to other sections of this chapter.

(b) These standards do not apply to:

(i) Management of clean soil and clean sediment as defined in WAC 173-350-100, which includes soil and sediment that is not impacted by release of a contaminant;

(ii) Management of soil and sediment within sites requiring remedial action as excluded under WAC 173-350-020;

(iii) Management of sediment as excluded under WAC 173-350-020;

(iv) Soil and sediment that designates as dangerous waste as excluded under WAC 173-350-020;

(v) Engineered soil reused in another construction project for the same engineering properties as excluded under WAC 173-350-020;

(vi) Impacted soil and impacted sediment disposed at a limited purpose landfill managed under other sections of this chapter, or a municipal solid waste landfill managed under chapter 173-351 WAC, Criteria for municipal solid waste landfills; and

(vii) Impacted soil and impacted sediment taken to a treatment facility. This section may be used to determine management options after treatment. Facilities that treat impacted soil and impacted sedi-

ment may be subject to other sections of this chapter, such as WAC 173-350-320, piles used for storage, treatment, or recycling.

(2) **Soil and sediment use criteria - Management options.**

(a) Storage and use of impacted soil and impacted sediment consistent with Table 995-A of this section is not solid waste handling and does not require a solid waste handling permit from the jurisdictional health department.

(b) This section is meant to be self-implementing, with persons handling impacted soil and impacted sediment responsible for managing materials in accordance with this section.

(c) This section provides management options meant to be protective of human health and the environment under most circumstances. Compliance with this section, however, does not relieve a person from liability for cleanup or for contribution under chapter 70.105D RCW, Hazardous waste cleanup-Model toxics control act, chapter 90.48 RCW, Water pollution control, or 42 U.S.C. Sec. 9601 et seq., Comprehensive environmental response, compensation, and liability act. Compliance with this section also does not relieve a person from complying with the requirement to notify the department of a release under chapter 173-340 WAC, Model toxics control act-Cleanup, specifically WAC 173-340-300.

(d) Persons may manage impacted soil and impacted sediment as speci-

fied in Table 995-A as follows:

Table 995-A Management Options

	<u>Soil and Sediment Type and/or Use</u>	<u>Conditions</u>
(1)	<u>Impacted soil placed at or near the location of generation within a project site.</u>	<u>(a) None.</u>
(2)	<u>Silica-based spent foundry sand from iron, steel, and aluminum foundries.</u>	<u>(a) Must use in accordance with U.S. EPA publication EPA-530-R-14-003, Risk Assessment of Spent Foundry Sands in Soil-Related Applications.</u>
(3)	<u>Impacted soil with contaminants resulting from routine, legal, non-industrial human activities such as, but not limited to, emissions from wood stoves or automobiles.</u> <u>This does not apply to street waste.</u>	<u>(a) Must use at locations with contaminants expected to be comparable based on similar land uses. Examples include, but are not limited to, soil from a highly urban residential area placed in a similar highly urban residential setting.</u> <u>(b) Must limit storage of material at a location outside of the source site or final placement site to ninety days, or store for longer periods in accordance with other sections of this chapter.</u>
(4)	<u>Impacted soil with contaminant concentrations at or below the soil and sediment screening levels in Table 995-C that correspond to the final placement site.</u>	<u>(a) Must place soil or sediment at locations that correspond to property classifications in Table 995-C and contaminant concentrations must not exceed soil and sediment screening levels (SSLs) applicable to those classifications.</u> <u>Decide which one of the two human health protection classifications (shown below) is most applicable to the final placement site, and then decide if other property classifications also apply. When multiple classifications apply, contaminant limits must not exceed the lowest applicable SSLs. Classifications are defined in subsection WAC 173-350-100 and include:</u> <ul style="list-style-type: none"> <u>• Residential, agricultural, and high frequency contact properties (<i>human health protection</i>);</u> <u>• Limited access properties (<i>human health protection</i>);</u> <u>• Ecologically-sensitive properties; and</u> <u>• Groundwater-sensitive properties.</u> <u>(b) For persons that will manage two thousand cubic yards or more and one or more contaminants exceed SSLs for “residential, agricultural, and high frequency contact properties,” at least thirty days prior to moving materials provide written notice to the jurisdictional health department associated with the location of final placement and the department that includes:</u> <ul style="list-style-type: none"> <u>(i) Contact information for the responsible person;</u> <u>(ii) Date(s) when material will be moved;</u> <u>(iii) Address or description of source site(s), final placement site(s), and any intermediate storage site(s);</u> <u>(iv) Description of the materials to be managed and, if known, the type of release;</u>

		<p><u>(v) SSLs applicable to the final placement site;</u> <u>(vi) Description of how materials were or will be characterized;</u> <u>(vii) Planned use(s) of materials; and</u> <u>(viii) A statement committing to manage materials in accordance with all conditions under this management option.</u></p> <p><u>(c) Meet all standards in subsection (2)(e) of this section.</u></p>
(5)	<p><u>Impacted soil and impacted sediment with contaminant concentrations above the soil and sediment screening levels in Table 995-C that correspond to the final placement site.</u></p>	<p><u>(a) Must place soil or sediment at locations with contaminant types and concentrations at or above contaminant types and concentrations in the impacted soil or impacted sediment to be placed; except, must not place at locations:</u> <u>(i) Where remedial action is required under chapter 70.105D RCW, Hazardous waste cleanup-Model toxics control act, chapter 90.48 RCW, Water pollution control, or 42 U.S.C. Sec. 9601 et seq., Comprehensive environmental response, compensation, and liability); or</u> <u>(ii) Where impacted soils and impacted sediment with contaminants above applicable soil and sediment screening levels in Table 995-C were placed prior to [RULE EFFECTIVE DATE].</u></p> <p><u>(b) Must characterize the final placement site in a manner that ensures representative sampling of site conditions.</u></p> <p><u>(c) For persons that will manage two thousand cubic yards or more, at least thirty days prior to moving materials provide written notice to the jurisdictional health department associated with the location of final placement and the department that includes:</u> <u>(i) Contact information for the responsible person;</u> <u>(ii) Date(s) when material will be moved;</u> <u>(iii) Address or description of source site, final placement site, and any intermediate storage site;</u> <u>(iv) Description of how materials and the final placement site were sampled;</u> <u>(v) Test results; and</u> <u>(vi) A statement committing to manage materials in accordance with all conditions under this management option.</u></p> <p><u>(d) Meet all standards in subsection (2)(e) of this section.</u></p>

(e) The following standards must be met for materials and uses identified in Table 995-A (4) and (5):

(i) Allow inspections by the jurisdictional health department and the department at reasonable times for the purpose of determining compliance with this chapter;

(ii) Collect samples of impacted soil and impacted sediment within the area of release or possible release in a manner that ensures rep-

representative sampling as defined in WAC 173-350-100. Sampling of sediment according to chapter 173-204 WAC, Sediment management standards, is also acceptable;

(iii) Test impacted soil and impacted sediment in the following manner:

(A) Using the latest test methods in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," U.S. EPA Publication SW-846, or other U.S. EPA-approved test methods;

(B) Unless otherwise provided in subsection (3)(a) of this section, using methods capable of detecting concentrations equal to or less than concentrations in Table 995-C;

(C) For impacted sediment, test for parameters as required by chapter 173-204 WAC, Sediment management standards, or as specified in Table 995-B;

(D) For impacted soil, test for parameters as specified in Table 995-B; and

(E) Where there is sufficient data that shows certain parameters are consistently below applicable soil and sediment screening levels in Table 995-C, a person may obtain written approval from the jurisdictional health department to eliminate testing of those parameters.

(iv) Ensure material is placed such that it does not spill, erode, or get conveyed onto another property;

(v) Ensure material is placed such that it will not result in runoff in violation of laws that protect the quality of any surface waters;

(vi) Ensure material is placed in a location above the seasonally highest groundwater level;

(vii) Ensure storage of material at an intermediate location that is not the generating site or final placement site is limited to ninety days, or store for longer periods in accordance with other sections of this chapter;

(viii) Any person claiming to have managed soil and sediment in accordance with this section must be able to document compliance with it, including documentation for the last five years of:

(A) Address or description of property where soil and sediment was removed;

(B) Address or description of property where soil and sediment was placed;

(C) Volume of soil and sediment placed; and

(D) Laboratory report of test results on soil and sediment, and if applicable, laboratory report of test results of receiving site.

(ix) For persons that will place two thousand cubic yards or more and one or more contaminants exceed SSLs for "residential, agricultural, and high frequency contact properties," file notice on the title to the property with the recording office in the county in which the property is situated that describes the materials and volumes placed, and the location where materials were placed.

Table 995-B Testing Parameters

<u>Parameters</u>	<u>Basic Soil Screening (when contaminants are unknown)</u>	<u>Street Waste</u>	<u>Petroleum Contaminated Soil</u>	<u>Engineered Soil</u>	<u>Sediment</u>	<u>Soil with Specific Possible Releases</u>
<u>Arsenic</u>	<u>X</u>	<u>X</u>		<u>X</u>	<u>X</u>	
<u>Barium</u>	<u>X</u>			<u>X</u>	<u>X</u>	
<u>Cadmium</u>	<u>X</u>	<u>X</u>		<u>X</u>	<u>X</u>	
<u>Chromium</u>	<u>X</u>	<u>X</u>		<u>X</u>	<u>X</u>	
<u>Copper</u>	<u>X</u>	<u>X</u>		<u>X</u>	<u>X</u>	
<u>Lead</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	
<u>Mercury</u>	<u>X</u>	<u>X</u>		<u>X</u>	<u>X</u>	
<u>Nickel</u>		<u>X</u>				
<u>Selenium</u>	<u>X</u>			<u>X</u>	<u>X</u>	
<u>Silver</u>	<u>X</u>			<u>X</u>	<u>X</u>	
<u>Zinc</u>		<u>X</u>				
<u>TPH¹-Gasoline Range Organics</u>		<u>X</u>	<u>X²</u>			
<u>TPH¹-Diesel Range Organics</u>	<u>X</u>	<u>X</u>	<u>X^{2,3}</u>			
<u>TPH¹-Heavy Oil</u>	<u>X</u>	<u>X</u>	<u>X^{2,3}</u>			
<u>TPH¹-Mineral Oil</u>			<u>X^{2,3}</u>			
<u>Benzene</u>		<u>X⁴</u>	<u>X⁴</u>			
<u>Ethyl benzene</u>			<u>X⁴</u>			
<u>Toluene</u>			<u>X⁴</u>			
<u>Xylenes</u>			<u>X⁴</u>			
<u>Methyl Tert-Butyl Ether (MTBE)</u>			<u>X</u>			
<u>Polychlorinated Biphenyls (PCBs)</u>	<u>X⁵</u>		<u>X⁵</u>		<u>X⁶</u>	
<u>Polycyclic Aromatic Hydrocarbons, carcinogenic (cPAHs)</u>	<u>X⁷</u>	<u>X</u>	<u>X⁷</u>		<u>X⁶</u>	

Organochlorine pesticides					X ⁶	
Dioxin					X ⁶	
pH				X		
Parameters suspected or known to be present based on due diligence	X	X	X	X	X	X
Parameters suspected or known to be in materials/products added to soil or sediment based on due diligence	X	X	X	X	X	X

¹ TPH is Total Petroleum Hydrocarbon.

² If the specific petroleum product is unknown, test for gasoline range organics. If soil has a mixture of more than one product, test for all. If it contains both gas and diesel, compare to both gas and diesel limits in Table 995-C.

³ If contaminated with diesel, heavy oil, and mineral oil, concentrations are not additive. Use the TPH product most closely representing the mixture and compare the level in Table 995-C for that product to the mixture.

⁴ Testing is needed only if TPH-Gasoline Range Organics are positively identified and attributed to a gasoline pattern.

⁵ Test only if due diligence or test results indicate the release of heavy oil or mineral oil and it is from an unknown source or a source known to be associated with PCBs, such as transformers and capacitors.

⁶ Test only if results of testing required by chapter 173-204 WAC, Sediment management standards, or due diligence indicate parameter may be present.

⁷ Test only if due diligence or test results indicate the release of heavy oil.

(3) Soil and sediment use criteria - Soil and sediment screening

levels. Persons managing impacted soil and impacted sediment under management option (4) in Table 995-A must use the soil and sediment screening levels (SSLs) in Table 995-C to determine appropriate locations for placement. For this option, the SSLs in Table 995-C may be adjusted upward under the following circumstances:

(a) When the practical quantitation limit is above the SSL as determined under chapter 173-340 WAC, Model toxics control act-Cleanup, specifically WAC 173-340-707; and

(b) When the natural background concentration in soil at the location of placement is above the SSL as determined under chapter 173-340 WAC, Model toxics control act-Cleanup, specifically WAC 173-340-709.

Table 995-C Soil and Sediment Screening Levels (SSLs) ^{a,b,c,d}

(This table applies only to management options (4) and (5) in Table 995-A)

Empty cells mean a value has not been determined for this rule.

Parameter	CAS Number	Residential/ Agricultural/ High Frequency Contact Properties ^e		Limited Access Properties ^e		Groundwater- Sensitive Properties ^e		Ecologically-Sensitive Properties ^e				Unrestricted ^e	
		mg/kg	Note	mg/kg	Note	mg/kg	Note	Plants mg/kg	Soil biota mg/kg	Wild- life mg/kg	Note	mg/kg	Note
1. acenaphthene	83-32-9	4800	C	4800	C	98	F	20			E	20	E
2. acetone	67-64-1	72000	C	72000	C	29	F					29	F
3. acrolein	107-02-8	40	C	40	C							40	C
4. acrylonitrile	107-13-1	1.9	D	1.9	D							1.9	D
5. aldrin	309-00-2	0.059	D	0.059	D	0.003	F			0.1	E	0.003	F
6. allyl alcohol	107-18-6	400	C	400	C							400	C
7. allyl chloride	107-05-1	48	D	48	D							48	D
8. aluminum	7429-90-5	91400	I	91400	I			91400			I	91400	I
9. anthracene	120-12-7	24000	C	24000	C	2300	F					2300	F
10. antimony	7440-36-0	5	H	32	C	5.4	F	5	78	1.6	E,G,I	1.6	I
11. aroclor 1016	12674-11-2	5.6	C	5.6	C							5.6	C
12. aroclor 1254	11097-69-1	0.5	D	0.5	D							0.5	D
13. aroclor 1260	11096-82-5	0.5	D	0.5	D							0.5	D
14. arsenic, inorganic	7440-38-2	13	I	20	B	13	I	18		43	G	13	I
15. asbestos	NA	1%	K	1%	K							1%	K
16. atrazine	1912-24-9	4.3	D	4.3	D							4.3	D
17. barium and compounds	7440-39-3	1250	N	16000	C	973	I	973	973	973	I,I,I	973	I
18. benzene	71-43-2	0.03	A	0.03	A	0.007	F					0.007	F
19. benzidine	92-87-5	0.0043	D	0.0043	D							0.0043	D
20. ben- zo[a]anthracene	56-55-3	1.4	D	1.4	D							1.4	D
21. benzoflpyrene (cPAH) ^f	50-32-8	0.1	A	2	B	0.1	F		18	1.1	G,G	0.1	A
22. ben- zo[b]fluoranthene	205-99-2	1.4	D	1.4	D	3	F					1.4	D
23. ben- zo[k]fluoranthene	207-08-9	14	D	14	D	29	F					14	D
24. benzoic acid	65-85-0	320000	C	320000	C							320000	C
25. benzyl alcohol	100-51-6	8000	C	8000	C							8000	C
26. benzyl chloride	100-44-7	6	D	6	D							6	D
27. beryllium	7440-41-7	3	I	160	C	63	F	10	40	21	E,G, G	3	I
28. biphenyl;1,1-	92-52-4	125	D	125	D			60			E	60	E
29. bis(2-chloro-1- methyl- ethyl)ether	108-60-1	14	D	14	D							14	D
30. bis(2- ethylhexyl) phthalate	117-81-7	71	D	71	D	14	F					14	F
31. bisphenol a	80-05-7	4000	C	4000	C							4000	C
32. boron	7440-42-8	16000	C	16000	C			0.5			E	0.5	E
33. bromine			---		---			10			E	10	E

Parameter	CAS Number	Residential/ Agricultural/ High Frequency Contact Properties ^e		Limited Access Properties ^e		Groundwater- Sensitive Properties ^e		Ecologically-Sensitive Properties ^e				Unrestricted ^e	
		mg/kg	Note	mg/kg	Note	mg/kg	Note	Plants mg/kg	Soil biota mg/kg	Wild- life mg/kg	Note	mg/kg	Note
34. bromodi- chloromethane	75-27-4	16	D	16	D	0.0014	F					0.0014	F
35. bromoform (tri- bromomethane)	75-25-2	127	D	127	D	0.023	F					0.023	F
36. bromomethane (methyl bromide)	74-83-9	112	C	112	C	0.05	F					0.05	F
37. butadiene;1,3-	106-99-0	0.29	D	0.29	D							0.29	D
38. butanol;n-	71-36-3	8000	C	8000	C	3.3	F					3.3	F
39. butyl benzyl phthalate	85-68-7	526	D	526	D							526	D
40. cadmium	7440-43-9	2	A	2	B	0.7 ^a	F	4	20	0.36 ^a	G	0.36 ^a	G
41. carbon disulfide	75-15-0	8000	C	8000	C	5	F					5	F
42. carbon tetrachloride	56-23-5	14	D	14	D	0.002	F					0.002	F
43. chloral hydrate	302-17-0	8000	C	8000	C							8000	C
44. chlordane	57-74-9	1	N	2.9	D	0.04	F	1	2.7		E,E	0.04	F
45. chlorinated dibenzofurans (total)		0.0000052	I							0.0000 052	I	0.00000 52	I
46. chlorine	7782-50-5	8000	C	8000	C							8000	C
47. chloro-1,3- butadiene;2-	126-99-8	1600	C	1600	C							1600	C
48. chlorobenzene	108-90-7	1600	C	1600	C	0.9	F					0.9	F
49. chloroaniline;3	108-42-9							20	30		E,E	20	E
50. chloroform	67-66-3	32	D	32	D	0.03	F					0.03	F
51. chloromethyl methyl ether	107-30-2	0.42	D	0.42	D							0.42	D
52. chlorophenol;2-	95-57-8	400	C	400	C	0.5	F					0.5	F
53. chlorophenol;3-	108-43-0							7	10		E	7	E
54. chlorpyrifos	2921-88-2	80	C	80	C							80	C
55. chromium (total)	7440-47-3	105	I	2000	B	1800000	F	105	105	105	I,I,I	105	I
56. chromium(III)	16065-83-1	2000	A	2000	B	480000	F			26	G	26	G
57. chromium(VI)	18540-29-9	19	A	19	B	19	F			130	G	19	A
58. chrysene	218-01-9	137	D	137	D	96	F					96	F
59. cobalt	7440-48-4							30	120		I,G	30	G
60. copper	7440-50-8	100	N	3200	C	284	F	70	56	56	G,I,I	56	I
61. cresol;m-	108-39-4	4000	C	4000	C							4000	C
62. cresol;o-	95-48-7	4000	C	4000	C	2.3	F					2.3	F
63. cresol;p-	106-44-5	8000	C	8000	C							8000	C
64. crotonaldehyde	123-73-9	0.5	D	0.5	D							0.5	D
65. cumene	98-82-8	8000	C	8000	C							8000	C
66. cyanide	57-12-5	40	H	48	C							40	H
67. ddd	72-54-8	4	D	4	D	0.72	F						
68. dde	72-55-9	3	D	3	D	0.45	F			0.02 Total	G	0.02 Total	G
69. ddt	50-29-3	3	D	4	B	1	F						
70. diazinon	333-41-5	56	C	56	C							56	C

Parameter	CAS Number	Residential/ Agricultural/ High Frequency Contact Properties °		Limited Access Properties °		Groundwater- Sensitive Properties °		Ecologically-Sensitive Properties °				Unrestricted °	
		mg/kg	Note	mg/kg	Note	mg/kg	Note	Plants mg/kg	Soil biota mg/kg	Wild- life mg/kg	Note	mg/kg	Note
71. diben- zo[a,h]anthracene	53-70-3	0.14	D	0.14	D	0.43	F					0.14	D
72. dibenzofuran	132-64-9	80	C	80	C							80	C
73. dibromo-3- chloropropane; 1,2-	96-12-8	1.3	D	1.3	D							1.3	D
74. dibromo- chloromethane	124-48-1	12	D	12	D	0.03	F					0.03	F
75. di-butyl phthalate	84-74-2	200	N	8000	C	57	F	200			E	57	F
76. dicamba	1918-00-9	2400	C	2400	C							2400	C
77. dichloroaniline; 2,4	554-00-7								100		E	100	E
78. dichloroaniline; 3,4	95-76-1								20		E	20	E
79. dichloroben- zene; 1,2-	95-50-1	7200	C	7200	C	7	F					7	F
80. dichloroben- zene; 1,4-	106-46-7	185	D	185	D	0.05	F		20		E	0.05	F
81. dichlorobenzi- dine; 3,3'-	91-94-1	2	D	2	D	0.0036	F					0.0036	F
82. dichlorodifluo- romethane	75-71-8	16000	C	16000	C							16000	C
83. dichloroethane; 1,1-	75-34-3	175	D	175	D	0.005	F					0.005	F
84. dichloroethane; 1,2-	107-06-2	11	D	11	D	0.002	F					0.002	F
85. dichloroeth- ylene; 1,1-	75-35-4	4000	C	4000	C	0.05	F					0.05	F
86. dichloroeth- ylene; 1,2-cis	156-59-2	160	C	160	C	0.08	F					0.08	F
87. dichloroeth- ylene; 1,2-trans	156-60-5	1600	C	1600	C	0.5	F					0.5	F
88. dichlorophenol; 3,4-	95-77-2							20	20		E,E	20	E
89. dichlorophe- noxyacetic acid; 2,4- (2,4-D)	94-75-7	800	C	800	C							800	C
90. dichloropro- pane; 1,2-	78-87-5	28	D	28	D	0.003	F		700		E	0.003	F
91. dichloropro- pane; 1,3-	542-75-6	10	D	10	D	0.001	F					0.001	F
92. dieldrin	60-57-1	0.06	D	0.06	D	0.002	F			0.0049	G	0.002	F
93. diethyl phthalate	84-66-2	64000	C	64000	C	72	F	100			E	72	F
94. dimethyl phthalate	131-11-3								200		E	200	E
95. dimethylphenol; 2,4-	105-67-9	1600	C	1600	C	1.3	F					1.3	F

Parameter	CAS Number	Residential/ Agricultural/ High Frequency Contact Properties ^e		Limited Access Properties ^e		Groundwater- Sensitive Properties ^e		Ecologically-Sensitive Properties ^e				Unrestricted ^e	
		mg/kg	Note	mg/kg	Note	mg/kg	Note	Plants mg/kg	Soil biota mg/kg	Wild- life mg/kg	Note	mg/kg	Note
96. dinitrophenol; 2,4-	51-28-5	160	C	160	C	13	F	20			E	13	F
97. dinitrotoluene; 2,4-	121-14-2	3	D	3	D	0.0017	F					0.0017	F
98. dinitrotoluene; 2,6-	606-20-2	0.7	D	0.7	D	0.00031	F					0.00031	F
99. di-n-octyl phthalate	117-84-0	800	C	800	C							800	C
100. dinoseb	88-85-7	80	C	80	C							80	C
101. dioxane;1,4-	123-91-1	10	D	10	D							10	D
102. dioxin (see TCDD- 2,3,7,8) ^s	NA	see TCDD- 2,3,7,8		see TCDD- 2,3,7,8		see TCDD- 2,3,7,8						see TCDD- 2,3,7,8	
103. diphenylhy- drazine;1,2-	122-66-7	1.3	D	1.3	D							1.3	D
104. endosulfan	115-29-7	480	C	480	C	4	F					4	F
105. endrin	72-20-8	0.4	N	24	C	0.08	F			0.2	E	0.08	F
106. epichlorohy- drin	106-89-8	101	D	101	D							101	D
107. ethyl acetate	141-78-6	72000	C	72000	C							72000	C
108. ethyl ether	60-29-7	16000	C	16000	C							16000	C
109. ethyl methac- rylate	97-63-2	7200	C	7200	C							7200	C
110. ethylbenzene	100-41-4	6	A	6	B	9.5	F					6	A,B
111. ethylene dibromide (EDB)	106-93-4	0.005	A	0.005	B							0.005	A,B
112. ethylene oxide	75-21-8	3	D	3	D							3	D
113. fluoranthene	206-44-0	3200	C	3200	C	630	F					630	F
114. fluorene	86-73-7	3200	C	3200	C	100	F		30		E	30	E
115. fluorine, solu- ble fluoride	7782-41-4	4800	C	4800	C			200			E	200	E
116. formaldehyde	50-00-0	16000	C	16000	C							16000	C
117. furan	110-00-9	80	C	80	C			600			E	80	C
118. heptachlor	76-44-8	0.2	D	0.2	D	0.02	F					0.02	F
119. heptachlor epoxide	1024-57-3	0.1	D	0.1	D	0.02	F			0.4	E	0.02	F
120. hexachloro- benzene	118-74-1	0.6	D	0.6	D	0.006	F			17	E	0.006	F
121. hexachlorobu- tadiene	87-68-3	13	D	13	D	0.6	F					0.6	F
122. hexachlorocy- clopentadiene	77-47-4	480	C	480	C	192	F	10			E	10	E
123. hexachlorocy- clohex- ane;alpha	319-84-6	0.2	D	0.2	D	0.0006	F					0.0006	F
124. hexachlorocy- clohexane;beta	319-85-7	0.6	D	0.6	D	0.0023	F					0.0023	F
125. hexachloro- ethane	67-72-1	25	D	25	D	0.04	F					0.04	F

Parameter	CAS Number	Residential/ Agricultural/ High Frequency Contact Properties °		Limited Access Properties °		Groundwater- Sensitive Properties °		Ecologically-Sensitive Properties °				Unrestricted °	
		mg/kg	Note	mg/kg	Note	mg/kg	Note	Plants mg/kg	Soil biota mg/kg	Wild- life mg/kg	Note	mg/kg	Note
126. hexane:n-	110-54-3	4800	C	4800	C	70	F					70	F
127. iodine	7553-56-2							4			E	4	E
128. indeno[1,2,3- cd]pyrene	193-39-5	1.4	D	1.4	D							1.4	D
129. iron	7439-89-6	68100	I	68100	I							68100	I
130. isobutyl alco- hol	78-83-1	24000	C	24000	C							24000	C
131. lead	7439-92-1	220	N	1000	B	900	F	50	500	25	E,E,I	25	I
132. lindane	58-89-9	0.01	A	0.01	B	0.004	F			6	E	0.004	F
133. lithium	7439-93-2							37			I	37	I
134. malathion	121-75-5	1600	C	1600	C							1600	C
135. malononitrile	109-77-3	8	C	8	C							8	C
136. manganese	7439-96-5	11200	C	11200	C			1360	1360	1500	I,E	1360	I
137. mercuric chloride	7487-94-7	24	C	24	C			0.3	0.1	5.5	E,E, E	0.1	E
138. mercury	7439-97-6	2	A,H	2	B	2	F					2	A,B,F H
139. methacryloni- trile	126-98-7	8	C	8	C							8	C
140. methanol	67-56-1	160000	C	160000	C							160000	C
141. methoxychlor	72-43-5	400	C	400	C	0.05	F					0.05	F
142. methyl ethyl ketone (MEK)	78-93-3	48000	C	48000	C							48000	C
143. methyl isobu- tyl ketone	108-10-1	6400	C	6400	C							6400	C
144. methyl mercury	22967-92-6	8	C	8	C					0.4	E	0.4	E
145. methyl methacrylate	80-62-6	112000	C	112000	C							112000	C
146. methyl naph- thalene;1-	90-12-0	34	D	34	D							34	D
147. methyl naph- thalene;2-	91-57-6	320	C	320	C							320	C
148. methyl tert- butyl ether (MTBE)	1634-04-4	0.1	A	0.1	B	0.1	F					0.1	A,B,F
149. methyl-4- chlorophe- noxy-acetic ac- id;2-	94-74-6	40	C	40	C							0.02	F
150. methylene bromide	74-95-3	800	C	800	C							800	C
151. methylene chloride	75-09-2	0.02	A	0.02	B	0.02	F					0.02	A,B,F
152. molybdenum	7439-98-7	400	C	400	C			2		7	E,E	2	E
153. naphthalene	91-20-3	5	A	5	B	4.5	F					4.5	F
154. nickel soluble salts	7440-02-0	100	N	1600	C	130	F	58	200	130	I,E,G	58	I
155. nitrate	14797-55-8	128000	C	128000	C							128000	C
156. nitrite	14797-65-0	8000	C	8000	C							8000	C

Parameter	CAS Number	Residential/ Agricultural/ High Frequency Contact Properties ^e		Limited Access Properties ^e		Groundwater- Sensitive Properties ^e		Ecologically-Sensitive Properties ^e				Unrestricted ^e	
		mg/kg	Note	mg/kg	Note	mg/kg	Note	Plants mg/kg	Soil biota mg/kg	Wild- life mg/kg	Note	mg/kg	Note
157. nitrobenzene	98-95-3	160	C	160	C	0.01	F		40		E	0.01	F
158. nitrophenol; 2- (o-nitrophenol)	88-75-5								7		E	7	E
159. nitroso-di-n- butylamine;N-	924-16-3	0.2	D	0.2	D							0.2	D
160. nitroso-di-n- propylamine; N-	621-64-7	0.14	D	0.14	D	0.000056	F					0.000056	F
161. nitrosodiphe- nylamine; N-	86-30-6	204	D	204	D	0.53	F		20		E	0.53	F
162. parathion	56-38-2	480	C	480	C							480	C
163. pentachloroan- iline	527-20-8								100		E	100	E
164. pentachloro- benzene	608-93-5	64	C	64	C				20		E	20	E
165. pentachloro- phenol (PCP)	87-86-5	2.5	D	2.5	D	0.016	F	3	6	2.1	E,E ₁ G	0.016	F
166. pH	N/A	pH 4.5-9.5	J	pH 4.5-9.5	J	pH 4.5 - 9.5	J	pH 4.5 -9.5			J	pH 4.5- 9.5	J
167. phenol	108-95-2	24000	C	24000	C	11	F	70	30		E	11	F
168. phosphorus	7723-14-0	1760	I	1760	I							1760	I
169. picloram	1918-02-1	5600	C	5600	C							5600	C
170. polybrominat- ed biphenyls	67774-32-7	0.03	D	0.03	D							0.03	D
171. polychlorinat- ed biphenyl (PCB) ^h	1336-36-3	0.5 ^h	D	2 ^h	L	0.02 ^h	F	40 ^h		0.65 ^h	E,E	0.02 ^h	F
172. polycyclic aromatic hy- drocarbons (carcinogenic) (cPAHs), toxic equivalency (TEQ) ^f	NA	See ben- zo(a) pyrene		See ben- zo(a) py- rene		See ben- zo(a) py- rene						See ben- zo(a)pyr- ene	
173. propargyl alcohol	107-19-7	160	C	160	C							160	C
174. pyrene	129-00-0	2400	C	2400	C	655	F					655	F
175. pyridine	110-86-1	80	C	80	C							80	C
176. selenium and compounds	7782-49-2	0.8	N	400	C	1	F	0.52	4.1	0.5 ^a	G,G ₁ I	0.5 ^a	I
177. silver	7440-22-4	34	H	400	C	8.5	F	2		4.2	E,G	2	E
178. strychnine	57-24-9	24	C	24	C							24	C
179. styrene	100-42-5	16000	C	16000	C	1.3	F	300			E	1.3	F
180. tcdd;2,3,7,8- (Low organic) (dioxin) (2,3,7,8- tetrachloro dibenzo -p- dioxin) ^g	1746-01-6	0.0000052	I	0.000013	D	0.0000052	I			0.0000 052	I	0.00000 52	I

Parameter	CAS Number	Residential/ Agricultural/ High Frequency Contact Properties ^e		Limited Access Properties ^e		Groundwater- Sensitive Properties ^e		Ecologically-Sensitive Properties ^e				Unrestricted ^e	
		mg/kg	Note	mg/kg	Note	mg/kg	Note	Plants mg/kg	Soil biota mg/kg	Wild- life mg/kg	Note	mg/kg	Note
181. technetium	7440-26-8							0.2			E	0.2	E
182. tetrachloroaniline;2,3,5,6	3481-20-7							20	20		E,E	20	E
183. tetrachlorobenzene; 1,2,3,4	634-66-2								10		E	10	E
184. tetrachloroethane;1,1,1,2-	630-20-6	38	D	38	D							38	D
185. tetrachloroethane;1,1,2,2-	79-34-5	5	D	5	D	0.001	F					0.001	F
186. tetrachloroethylene (PCE)	127-18-4	0.05	A	0.05	B	0.006						0.006	F
187. tetrachlorophenol; 2,3,4,5-	4901-51-3								20		E	20	E
188. thallium nitrate	10102-45-1	0.6	C	0.6	C			1			E	0.6	C
189. thallium, soluble salts	7440-28-0	0.8	C	0.8	C	0.5	I					0.5	I
190. tin	7440-31-5	275	N	48000	C			50			E	50	E
191. tnt	118-96-7	33	D	33	D							33	D
192. toluene	108-88-3	7	A	7	B	4.5	F	200			E	4.5	F
193. toxaphene	8001-35-2	1	D	1	D	0.1	F					0.1	F
194. tp;2,4,5-(silvex)	93-72-1	640	C	640	C							640	C
195. total petroleum hydrocarbon (TPH): gasoline range organics, benzene present ⁱ	NA	30	A	30	B							30	A,B
196. total petroleum hydrocarbon (TPH): gasoline range organics, no detectable benzene ⁱ	NA	100	A	100	B			120	100	1000	E,E, E	100	A,B,I
197. total petroleum hydrocarbon (TPH): diesel range organics ⁱ	NA	460 total	N	2000	B			1600 total	200 total	2000 total	E,E, E	200 total	E
198. total petroleum hydrocarbon (TPH): heavy oils ⁱ	NA			2000	B								
199. total petroleum hydrocarbon (TPH): mineral oil ⁱ	NA	4000	A	4000	B							4000	A,B

Parameter	CAS Number	Residential/ Agricultural/ High Frequency Contact Properties ^e		Limited Access Properties ^e		Groundwater- Sensitive Properties ^e		Ecologically-Sensitive Properties ^e				Unrestricted ^e	
		mg/kg	Note	mg/kg	Note	mg/kg	Note	Plants mg/kg	Soil biota mg/kg	Wild- life mg/kg	Note	mg/kg	Note
200. trichloroaniline;2,4,5-	636-30-6				----			20	20		E,E	20	E
201. trichlorobenzene;1,2,3-	87-61-6				----				20		E	20	E
202. trichlorobenzene;1,2,4-	120-82-1	34	D	34	D	0.6	F		20		E	0.6	F
203. trichloroethane;1,1,1-	71-55-6	2	A	2	B	0.02	F					0.02	F
204. trichloroethane;1,1,2-	79-00-5	18	D	18	D	0.03	F					0.03	F
205. trichloroethylene (TCE)	79-01-6	0.03	A	0.03	B	0.02	F					0.02	F
206. trichlorofluoromethane (Freon 11)	75-69-4	24000	C	24000	C	0.05	F					0.05	F
207. trichlorophenol; 2,4,5-	95-95-4	8000	C	8000	C	29	F	4	9		E,E	4	E
208. trichlorophenol; 2,4,6-	88-06-2	80	C	80	C	0.046	F		10		E	0.046	F
209. trichloropropane; 1,2,3-	96-18-4	0.03	D	0.03	D							0.03	D
210. trimethylbenzene; 1,3,5-	108-67-8	800	C	800	C							800	C
211. uranium, soluble salts	7440-61-1	240	C	240	C			5			E	5	E
212. vanadium	7440-62-2	218	I	400	C	1600	F	218		218	II	218	I
213. vinyl acetate	108-05-4	80000	C	80000	C	33	F					33	F
214. vinyl chloride	75-01-4	0.01	H	88	M	0.0001	F					0.0001	F
215. warfarin	81-81-2	24	C	24	C							24	C
216. xylenes ^j	1330-20-7	9	A	9	B	120	F					9	A,B
217. zinc	7440-66-6	270	N	24000	C	6000	F	136	136	136	I	136	I

Notes to Table 995-C:

- A. SSL based on chapter 173-340 WAC, Method A Unrestricted Land Use cleanup levels.
- B. SSL based on chapter 173-340 WAC, Method A Industrial Properties cleanup levels.
- C. SSL based on chapter 173-340 WAC, Method B Non-Cancer cleanup levels.
- D. SSL based on chapter 173-340 WAC, Method B Cancer cleanup levels.
- E. SSL based on chapter 173-340 WAC, Table 749-3 Site-Specific Terrestrial Ecological Evaluation cleanup levels.
- F. SSL based on chapter 173-340 WAC, Equation 747-1 for deriving soil concentrations for protection of groundwater.
- G. SSL based on U.S. EPA Ecological Soil Screening Levels.
- H. SSL based on U.S. EPA Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites.
- I. SSL based on Washington soil background levels.
- J. pH SSL based on background pH of Washington soils, and risks to humans, plants, and microorganisms.
- K. Asbestos SSL of 1% based on Chapter 296-62 WAC, General Occupational Health Standards.
- L. SSL based on Chapter 173-303 WAC, Dangerous Waste Regulations, which requires materials with over 2 mg/kg PCB from transformers, capacitors, or bushings to be managed as special waste.
- M. SSL based on Chapter 173-340 WAC, Method C Industrial Properties cleanup levels.
- N. SSL based on chapter 173-340 WAC, Table 749-3 Simplified Terrestrial Ecological Evaluation cleanup levels for unrestricted land use.

^a Test methods used for comparison to SSL must be capable of detecting down to the SSL in order to have meaning. Instruction may need to be relayed to the laboratory, particularly for cadmium and selenium. Exceptions to SSLs may be made based on practical quantitation limits as described in WAC 173-350-995(3).

^b Protection of surface water has not been factored into SSLs because standards vary between surface waters. Persons may need to adjust SSLs in consideration of surface water quality depending on site-specific circumstances.

^c For parameters and SSLs not listed or calculated here, SSLs must be determined following the same methodology as described below or be based on the latest scientific research in literature surveys. SSLs for ecologically-sensitive properties do not need to be established for contaminants that are not listed in chapter 173-340 WAC, Table 749-3.

^d Impacted soil or impacted sediment containing listed dangerous waste as specified in chapter 173-303 WAC. Dangerous waste regulations, specifically sections WAC 173-303-081 and 173-303-082, may be subject to delisting or contained-in determinations prior to management under this chapter.

^e SSLs are based primarily on the lowest levels of the following standards, adjusted up to background limits when applicable:

	Residential/ Agricultural/ High Frequency Contact	Limited Access	Ecologically Sensitive	Groundwater Sensitive	Unrestricted
Chapter 173-340 WAC, Method A Unrestricted Land Use cleanup levels	X				X
Chapter 173-340 WAC, Method A Industrial Properties cleanup levels		X			X
Chapter 173-340 WAC, Method B Non-cancer cleanup levels	X	X Used only when no Method A level existed.			X
Chapter 173-340 WAC, Method B Cancer cleanup levels	X	X Used only when no Method A level existed.			X
Chapter 173-340 WAC, Equation 747-1 for protection of groundwater ⁱ				X	X
Chapter 173-340 WAC, Table 749-2 Simplified Terrestrial Ecological Evaluation cleanup levels, unrestricted land use	X				X
Chapter 173-340 WAC, Table 749-3 Site-specific Terrestrial Ecological Evaluation cleanup levels			X		X
U.S. EPA Ecological Soil Screening Levels, OSWER Directives 9285.7-56 through 9285.7-73, 9285.7-75 through 9285.7-78			X		X
U.S. EPA Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites, December 2002, OSWER 9355-4-24, December 2002, Appendix A Generic SSLs ⁱⁱ	X				X
Washington background limits ⁱⁱⁱ	X	X	X	X	X

ⁱ Chapter 173-340 WAC, Equation 747-1 for protection of groundwater. Calculated using two sets of inputs:
 • One set of inputs based on Ecology publication #96-02, Implementation Guidance for the Groundwater Quality Standards.
 • One set of inputs based on chapter 173-340 WAC for protection of potable drinking water in the vadose zone at 13 and 25 degrees Celsius.
 Groundwater-sensitive SSLs set at the lowest of the two results above. SSLs in this chapter not calculated for all contaminants.

ⁱⁱ U.S. EPA Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites, December 2002, OSWER 9355-4-24, December 2002, Appendix A Generic SSLs. Based on residential scenario and human ingestion, inhalation, and protection of groundwater assuming some separation from groundwater.

ⁱⁱⁱ Washington background limits based on:
 • *Geochemical and Mineralogical Maps for Soils of the Conterminous United States*, 2014, U.S. Geological Survey Open-File Report 2014-1082 for aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, lithium, manganese, mercury, molybdenum, nickel, phosphorous, selenium, silver, thallium, tin, uranium, vanadium, and

zinc. Used Washington-specific test results for A and C soil horizon and ProUCL statistical software for a 90/90 upper tolerance limit, using the Kaplan-Meier method for measurements below the method detection limit. Exceptions to SSLs based on background may be made as described in WAC 173-350-995(3).

- Dioxins (2,3,7,8-TCDD) and furans (chlorinated dibenzofurans): *Natural Background for Dioxins/Furans in WA Soils – Technical Memorandum #8*, August 2010, WA Dept. of Ecology Publication No. 10-09-053.
- pH: *Washington Soil Atlas*, United States Department of Agriculture Natural Resource Conservation Service, http://www.nrcs.usda.gov/wps/portal/nrcs/detail/wa/soils/?cid=nrcs144p2_036334.

^f cPAH is the sum of the toxic equivalent concentrations of the following seven cPAHs and compared to benzo(a)pyrene SSL: benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, chrysene, dibenzo(a,h)anthracene, and indeno(1,2,3-cd)pyrene.

^g Dioxin is the sum of the toxic equivalent concentrations and compared to 2,3,7,8-TCDD SSL.

^h PCB is the total of all PCBs. PCBs subject to 40 CFR Part 261 must be disposed in accordance with federal rules regardless of concentration.

ⁱ Results of testing should be based on distinguishing fuel patterns in the chromatogram.

^j Xylene is the total of m, o, and p xylenes.