

WAC 173-204-560 Sediment cleanup standards—General requirements. (1) **Applicability and purpose.** This section specifies the methods for establishing sediment cleanup standards under chapter 70.105D RCW for sites where there has been a release or threatened release of contaminants to sediment.

(2) **Sediment cleanup levels.** The sediment cleanup level is the concentration or level of biological effects of a contaminant in sediment determined by the department to be protective of human health and the environment.

(a) **Method for establishing sediment cleanup levels.** The sediment cleanup level shall be established in accordance with the following requirements:

(i) **Initial level.** The sediment cleanup level shall initially be established at the sediment cleanup objective;

(ii) **Upward adjustments.** The sediment cleanup level may be adjusted upward from the sediment cleanup objective based on the following site-specific factors:

(A) Whether it is technically possible to achieve the sediment cleanup level at the applicable point of compliance within the site or sediment cleanup unit; and

(B) Whether meeting the sediment cleanup level will have a net adverse environmental impact on the aquatic environment, taking into account the short- and long-term positive effects on natural resources, habitat restoration, and habitat enhancement and the short- and long-term adverse impacts on natural resources and habitat caused by cleanup actions;

(iii) **Limit on upward adjustments.** A sediment cleanup level may not be adjusted upward above the cleanup screening level.

(b) **Establishment of more stringent sediment cleanup levels.** The department may establish sediment cleanup levels more stringent than those established under (a) of this subsection when, based on a site-specific evaluation, the department determines that such levels are necessary to protect human health and the environment. The sediment cleanup level may not be established below the sediment cleanup objective.

(3) **Sediment cleanup objectives.** The sediment cleanup objective for a contaminant shall be established as the highest of the following levels:

(a) The lowest of the following risk-based levels:

(i) The concentration of the contaminant based on protection of human health as specified in WAC 173-204-561(2);

(ii) The concentration or level of biological effects of the contaminant based on benthic toxicity as specified in WAC 173-204-562 or 173-204-563, as applicable;

(iii) The concentration or level of biological effects of the contaminant estimated to result in no adverse effects to higher trophic level species as specified in WAC 173-204-564; and

(iv) Requirements in other applicable laws;

(b) Natural background; and

(c) Practical quantitation limit.

(4) **Cleanup screening levels.** The cleanup screening level for a contaminant shall be established as the highest of the following levels:

(a) The lowest of the following risk-based levels:

(i) The concentration of the contaminant based on protection of human health as specified in WAC 173-204-561(3);

(ii) The concentration or level of biological effects of the contaminant based on benthic toxicity as specified in WAC 173-204-562 or 173-204-563, as applicable;

(iii) The concentration or level of biological effects of the contaminant estimated to result in no adverse effects to higher trophic level species as specified in WAC 173-204-564; and

(iv) Requirements in other applicable laws;

(b) Regional background as defined in subsection (5) of this section; and

(c) Practical quantitation limit.

(5) **Regional background.** Regional background for a contaminant shall be established by the department in accordance with the requirements of this subsection.

(a) The department will determine the geographic area for establishing regional background for a contaminant.

(b) If a site or sediment cleanup unit is located within a geographic area where regional background for a contaminant has not been established, the department may:

(i) Compile and collect sufficient sampling data to establish regional background;

(ii) Require any potentially liable person to compile and collect sufficient sampling data, as determined by the department, to establish regional background; or

(iii) If there is currently insufficient sampling data to establish regional background, after consulting with any potentially liable person, establish regional background at natural background.

(c) The department expects that regional background will usually be greater than natural background. If the department determines, based on sampling data, that regional background is not greater than natural background, the department will establish regional background at natural background.

(d) Calculation of regional background for a contaminant must exclude samples from areas with an elevated level of contamination due to the direct impact of known or suspected contaminant sources, including areas within a sediment cleanup unit or depositional zone of a discharge.

(e) The department will determine the appropriate statistical analyses, number and type of samples, and analytical methods to establish a regional background on a case-by-case basis.

(f) If a water body is not beyond the direct influence of a significant contaminant source, the department may use alternative geographic approaches to determine regional background for a contaminant. Several factors must be evaluated when determining an alternate geographic approach including:

(i) Proximity of sampling locations to the site;

(ii) Similar geologic origins as the site sediment;

(iii) Similar fate and transport and biological activities as the site; and

(iv) Chemical similarity with the site.

(6) **Point of compliance.** The point of compliance shall be established at a location that is protective of both aquatic life and human health. To protect aquatic life, the point of compliance shall be established within the biologically active zone. If that location is not sufficient to protect human health, then the point of compliance shall be established at a different location that is also protective of human health.

(7) **Compliance monitoring.**

(a) **General.** The methods used to determine compliance with sediment cleanup standards shall be determined by the department on a site-specific basis.

(b) **Use of tissue analysis.** At the department's discretion, and when determined to provide appropriate protection for human health or the environment, contaminants in tissue may be used to identify and screen chemicals of concern in sediment during the remedial investigation/feasibility study and to evaluate compliance with sediment cleanup standards.

(i) **Risk assessment requirements.** Assessments of risk to human health or the environment from tissue chemical concentrations must be consistent with the procedures of WAC 173-204-560, 173-204-561, and 173-204-564.

(ii) **Species and tissue type selection.** The methods and procedures used to select the appropriate species and tissue types shall be determined by the department on a site-specific basis.

(c) **Monitoring approaches.** For sediment cleanup standards based on the benthic criteria in WAC 173-204-562 or 173-204-563, as applicable, the department will determine compliance on an individual station by station approach. For sediment cleanup standards based on other criteria, the department will determine compliance by area weighted or other averaging approach, individual station by station approach, or a combination of both. The department will determine the most appropriate monitoring approach based on exposure pathways and receptors.

(8) **Data reporting.** Any person who samples sediment and/or tissue to assess compliance with this part shall comply with the following conditions:

(a) Where analytical results indicate a chemical is not detected in a sample, the data shall be reported as "non detect" at the method detection limit and the method detection limit reported; and

(b) Where analytical results indicate a chemical is detected between the method detection limit and the practical quantitation limit in a sample, the data shall be reported and qualified as "estimated."

[Statutory Authority: Chapter 70.105D RCW. WSR 13-06-014 (Order 08-07), amended and recodified as § 173-204-560, filed 2/25/13, effective 9/1/13. Statutory Authority: Chapters 43.21C, 70.105D, 90.48, 90.52, 90.54 and 90.70 RCW. WSR 91-08-019 (Order 90-41), § 173-204-570, filed 3/27/91, effective 4/27/91.]