

WAC 173-350-230 Land application. (1) Land application - Applicability.

(a) These standards apply to solid waste that is beneficially used on the land through application at an agronomic rate, as a soil amendment, or for land reclamation.

(b) These standards do not apply to:

(i) Land application of manure and bedding, crop residue, and on-farm vegetative waste at agronomic rates as excluded under WAC 173-350-020;

(ii) Land application of solid waste exempted from permitting under WAC 173-350-200;

(iii) Solid waste used to improve the engineering characteristics of soil;

(iv) Land application of composted materials as defined in WAC 173-350-100;

(v) Land application of vermicompost and organic materials meeting the terms and conditions for permit exemption of WAC 173-350-225; and

(vi) Land application of digestate meeting the terms and conditions for permit exemption or permitting requirements of WAC 173-350-250.

(2) **Land application - Permit exemptions.** There are no permit exemptions for land application.

(3) **Land application - Permit requirements - Location.** There are no specific location standards for land application of solid waste subject to this chapter; however, land application sites must meet the performance standards of WAC 173-350-040.

(4) **Land application - Permit requirements - Design.** There are no specific design standards for land application of solid waste subject to this chapter; however, land application sites must meet the performance standards of WAC 173-350-040.

(5) **Land application - Permit requirements - Documentation.** There are no specific engineering or construction documentation requirements; however, land application sites must meet the performance standards of WAC 173-350-040.

(6) **Land application - Permit requirements - Operation.** The owner or operator of a land application site must:

(a) Operate the site in compliance with the performance standards of WAC 173-350-040 and this section. In addition the owner or operator must develop, keep, and follow a plan of operation approved as part of the permitting process. The plan of operation must be available for inspection at the request of the jurisdictional health department. If necessary, the plan may be modified with the approval, or at the direction of the jurisdictional health department. Each plan of operation must include the following:

(i) A description of the types of solid wastes to be land applied;

(ii) A description of the processes by which the solid waste is generated and treated;

(iii) A description of the characteristics of the waste that provide agronomic, soil-amending, or reclamation capability;

(iv) A waste monitoring plan that provides representative characterization of the waste over time;

(v) A description of how the owner or operator will ensure that land application occurs at a predictable application rate determined as follows:

(A) For agricultural applications, solid waste must be applied to the land at a rate that does not exceed the agronomic rate. The agronomic rate should be based on Washington State University cooperative extension service fertilizer guidelines or other appropriate resources accepted by the jurisdictional health department;

(B) For the purposes of land reclamation or other soil amending activities, the application rate may be designed, for example, to achieve a soil organic matter content or other soil physical characteristics to promote long-term soil productivity, with consideration of the carbon-to-nitrogen ratio to control nutrient leaching; and

(C) For liquid wastes, the application rate must also be based on soil permeability and infiltration rate.

(vi) A description of how the owner or operator will determine the application rate that accounts for the characteristics of the waste to be applied, characteristics of receiving site soils, irrigation practices, climate, and the crop to be grown;

(vii) A description of the process, system, and equipment that will be used to apply the waste that explains:

(A) How the equipment and system will be calibrated to deliver waste at the appropriate rate;

(B) Whether the waste will be allowed to remain on the surface of the land, tilled into the soil, or injected into the soil at the time of application;

(C) When the waste will be applied to the land relative to crop and livestock management practices; and

(D) Any restrictions on application related to climatic factors including typical precipitation, twenty-five-year storm events, temperature, wind, frozen soils, saturated soils, or seasonal high groundwater.

(viii) A description of how the waste will be managed at all points during storage and application to control attraction to vectors and to mitigate nuisance odor impacts (unless exempted under chapter 70.94 RCW, Washington Clean Air Act), including a description of how owners or operators will respond to complaints;

(ix) If the seasonal high groundwater is three feet or less below the surface, a management plan describing how groundwater will be protected;

(x) For waste stored in piles at the land application site, a description of how the owner or operator will ensure that:

(A) Contamination of groundwater, surface water, air, and land during storage is prevented;

(B) The potential for combustion within the pile is minimized;

(C) The duration of storage of the entire pile is limited to one year and limited to the amount that will be applied to the site during a one-year period according to the plan of operation, or less if the jurisdictional health department believes it is necessary to prevent the contamination of groundwater, surface water, air, or land. Subsequent accumulation under the same conditions is allowed at the same location after the entire pile has been used; and

(D) For piles that will not meet conditions of (A) through (C) of this subsection, a demonstration that the owner or operator will meet the requirement of WAC 173-350-320.

(xi) For waste stored in piles somewhere other than the land application site, a description of how the owner or operator will meet the requirements of WAC 173-350-320;

(xii) For storage of liquid waste or semisolid waste in surface impoundments or tanks, a description of how the owner or operator will meet the requirements of WAC 173-350-330;

(xiii) A description of how the owner or operator will maintain operating records of the location where waste is applied, amount and type of waste applied, the crop planted, and other nutrient inputs, including the form or computer printout used to record this information. Facility annual reports must be maintained in the operating record. Significant deviations from the plan of operation must be noted in the operating record. Records must be kept for a minimum of five years and be available upon request by the jurisdictional health department; and

(xiv) Other details to demonstrate that the facility will be operated in accordance with this subsection and as required by the jurisdictional health department.

(b) Prepare and submit a copy of an annual report to the jurisdictional health department and the department by April 1st on forms supplied by the department. The annual report must detail the land application activities during the previous calendar year and must include the following information:

(i) Address or legal description of where waste was land applied;

(ii) Calendar year covered by the report;

(iii) Annual quantities and types of waste managed;

(iv) For each crop grown: The acreage used, the amount, type and source of each waste applied, the crop, and any additional nutrient inputs to the land, such as manure, biosolids, or commercial fertilizer;

(v) Quantity and type of any waste remaining in storage as of December 31st of the reporting year;

(vi) Any additional waste characterization information required to be obtained as a condition of the permit, and a summary report of that data;

(vii) Any environmental monitoring data required to be obtained as a condition of the permit, and a summary report of that data; and

(viii) Any additional information required by the jurisdictional health department as a condition of the permit.

(7) **Land application - Permit requirements - Groundwater monitoring.** There are no specific groundwater monitoring requirements for land application sites subject to this chapter; however, land application sites must meet the performance standards of WAC 173-350-040.

(8) **Land application - Permit requirements - Closure.** The owner or operator of all land application sites must notify the jurisdictional health department sixty days in advance of closure. All land application sites must be closed by applying all materials in storage in accordance with the permit, or by removing those materials to a facility that conforms to the applicable regulations for handling the waste.

(9) **Land application - Permit requirements - Financial assurance.** There are no specific financial assurance requirements for land application sites subject to this chapter; however, land application sites must meet the performance standards of WAC 173-350-040.

(10) **Land application - Permit application contents.**

(a) The owner or operator of land application sites subject to this section must obtain a solid waste permit from the jurisdictional health department. All applications for permits must be submitted in accordance with the procedures established in WAC 173-350-710. In ad-

dition to the requirements of WAC 173-350-710 and 173-350-715, each application for a permit must contain:

- (i) Contact information, including name, contact person, mailing address, phone, fax, email for:
 - (A) Any person who generates waste that will be applied to the site;
 - (B) The person who is applying for a permit (the permit holder);
 - (C) The person who prepares the permit application; and
 - (D) The person who owns the site where the waste will be applied.
- (ii) An analysis of pollutant concentrations of the following reported on a dry weight basis:
 - (A) Total arsenic;
 - (B) Total barium;
 - (C) Total cadmium;
 - (D) Total chromium;
 - (E) Total copper;
 - (F) Total lead;
 - (G) Total mercury;
 - (H) Total molybdenum;
 - (I) Total nickel;
 - (J) Total selenium;
 - (K) Total zinc.
- (iii) An analysis of nutrients at a minimum to include organic nitrogen, nitrate-nitrogen, ammonium-nitrogen, total phosphorus, and total potassium, reported on a dry weight basis;
- (iv) An analysis of physical/chemical parameters to include at a minimum: Total solids, pH, soluble salts, total organic carbon;
- (v) A discussion of any pathogens known or suspected to be associated with this material, including those which can cause disease in plants, animals, or humans;
- (vi) Any additional analysis required by the jurisdictional health department. The jurisdictional health department may reduce the analytical requirements of this section;
- (vii) A land application site characterization including:
 - (A) A description of current practices and a brief description of past practices on the site;
 - (B) A discussion of the potential for run-on and runoff, and typical depths to seasonal high groundwater. Runoff discussion must include direction of site drainage and identification of any surface water within one-quarter mile of the site;
 - (C) An analysis of soil nutrients including plant available nitrogen in the upper three feet of soil in one foot increments;
 - (D) A site map showing property boundaries, adjacent properties and adjacent property uses, with the application areas clearly shown, and with the latitude and longitude of the approximate center of each land application site;
 - (E) A topographic relief map of the site extending one-quarter mile beyond the site boundaries at a scale of 1:24,000 or other scale if specified by the jurisdictional health department;
 - (F) Show the following information on either of the maps provided or on additional maps:
 - (I) Location of the site by street address, if applicable;
 - (II) The zoning classification of the site;
 - (III) The means of access to the site;
 - (IV) The size of the site in acres, and if applicable, the size of individual fields, units, and application areas;

(V) The location and size of any areas which will be used to store the waste;

(VI) Any portion of the site that falls within a wellhead protection area;

(VII) Any seasonal or perennial surface water located on the site or perennial surface water bodies within one-quarter mile of the site;

(VIII) The location of all wells within one-quarter mile of the boundary of the application area whether for domestic, irrigation, or other purposes;

(IX) Any setback or buffer to surface water, property boundaries, or other feature, if proposed;

(X) The location of any critical areas or habitat identified under the Endangered Species Act, local growth management plans, habitat conservation plans, conservation reserve program, or local shoreline master program; and

(XI) A description of the soil type(s), textural classes, and soil depths present on the site as determined by the most recent edition of the Natural Resources Conservation Service soil survey or from actual field measurements.

(viii) A plan of operation meeting the requirements of subsection (6) of this section.

(b) Two or more areas of land under the same ownership or operational control which are not contiguous may be considered as one site for the purposes of permitting, if in the opinion of the jurisdictional health department the areas are sufficiently proximate and management practices are sufficiently similar that viewing them as one proposal would expedite the permit process without compromising the public interest. A jurisdictional health department may also require separate permits for a contiguous area of land if it finds that the character of a proposed site or management practices across the site are sufficiently different that the permit process and public interest would be best served by a more focused approach.

[Statutory Authority: Chapter 70.95 RCW, and RCW 70.95.060, 70.95.215, 70.95.218, 70.95.260(6), 70.95.300, 70.95.305, 70.95.310, 70.95.440. WSR 18-17-008 (Order 13-08), § 173-350-230, filed 8/1/18, effective 9/1/18. Statutory Authority: Chapter 70.95 RCW. WSR 03-03-043 (Order 99-24), § 173-350-230, filed 1/10/03, effective 2/10/03.]