

[NOTE: Summary of Changes: This rulemaking is replacing a temporary rule by amending the previous permanent rule. The rule adopts new language clarifying to which facilities certain pathogen reduction standards apply. New text is in blue and underlined.]

Division 96

SOLID WASTE: SPECIAL RULES FOR SELECTED SOLID WASTE DISPOSAL SITES

**340-096-0140**

**Special Rules Pertaining to Composting: Pathogen Reduction**

(1) All composting facilities must comply with this rule, except that agricultural operations, as defined by ORS 467.120(2)(a), producing composted material and digestate only for on-farm use, are not subject to the requirements of this rule. The department may require that an agricultural operation, or other facility whose digestate is excluded under section 2 of this rule, comply with this rule if the department determines that such compliance is necessary to protect human health or the environment.

(2) All composted material and digestate, excluding: 1) composted material and digestate that is sent as feedstock to a composter possessing either a composting permit or registration; or 2) digestate applied to soil at agronomic application rates and consistent with site restrictions in 40 C.F.R. §503.32(b)(5), must meet the following limits:

(a) For composted material produced from Type 1 or Type 3 feedstock, or a mix of Type 1 and 3 feedstocks, analysis must be performed for salmonella or fecal coliform and meet the following limits:

(A) Salmonella analysis must result in less than 3 Most Probable Number per 4 grams of total solids (dry weight).

(B) Fecal coliform analysis must result in less than 1,000 Most Probable Number per gram of total solids (dry weight).

(b) For composted material and digestate produced from Type 1 or Type 3 feedstock with less than 50% by volume of Type 2 feedstock, analysis must be performed for salmonella or fecal coliform and meet the following limits:

(A) Salmonella analysis must result in less than 3 Most Probable Number per 4 grams of total solids (dry weight).

(B) Fecal coliform analysis must result in less than 1,000 Most Probable Number per gram of total solids (dry weight).

(c) For composted material and digestate produced from feedstock containing more than 50% volume of Type 2 feedstock in the initial pile, analysis must be performed for fecal coliform and meet the following limits:

(A) Analysis must result in less than 1,000 Most Probable Number per gram of total solids (dry weight).

(3) Methods of Pathogen Reduction. All composting facilities subject to this rule must document and implement a pathogen reduction plan that addresses requirements of the Code of Federal Regulations, 40 CFR Part 503. The plan must include a Process to Further Reduce Pathogen (PFRP), under 40 CFR Part 503 Appendix B, item (B)(1), dated February 19, 1993, that must include one of the following elements:

(a) Using either the within-vessel aerobic composting method or the static aerated pile composting method, the temperature of the active composting pile must be maintained at 55 degrees Celsius or higher for three days;

(b) Using the windrow composting method, the temperature of the active composting pile must be maintained at 55 degrees Celsius or higher for 15 days or longer. During the period when the composting pile is maintained at 55 degrees Celsius or higher, there must be a minimum of five turnings of the windrow;

(c) Using anaerobic digestion, the following parameters must be met:

(A) All feedstocks are pasteurized at 70 degrees Celsius or higher for five minutes or longer prior to placement in the digester; or

(B) The digestion process (treatment phase) maintains an operating temperature of 53 degrees Celsius or higher for five hours or longer; or

(C) The digestion process (treatment phase) maintains an operating temperature of 35 degrees Celsius or higher for 10 days or longer; or

(D) The digestion process (treatment phase) maintains an operating or liquid digestate storage temperature above 6 degrees Celsius or higher for six months or longer; or

(d) An alternative method that permittee can demonstrate achieves an equivalent reduction of human pathogens.

(4) Testing compost and solid digestate for pathogen reduction. All composting facilities subject to this rule must test composted material and solid digestate, excluding composted material and digestate that is sent as feedstock to a composter with either a composting permit or registration, with the following frequency:

(a) If less than 2,500 tons of composted material from Type 1 and 2 feedstocks are produced per year, testing must be conducted once a year.

(b) If more than 2,500 tons of composted material from Type 1 and 2 feedstock are produced per year, testing must be conducted every 5,000 tons of feedstock used or a maximum of once every three months.

(c) If less than 2,500 tons of composted material from Type 3 feedstocks are produced per year, testing must be conducted once every four months.

(d) If more than 2,500 tons of composted material from Type 3 are produced per year, testing must be conducted every 5,000 tons of feedstock used or monthly.

(5) Testing liquid digestate for pathogen reduction. The frequency with which liquid digestate must be tested for pathogen reduction depends on the average storage time for digestate following the treatment phase, where "average storage time" is defined as the total amount of liquid digestate withdrawn from storage over the course of a month, divided by the average quantity of liquid digestate being stored in that month. All anaerobic digestion facilities subject to this rule and proposing to use liquid digestate as a soil amendment, fertilizer or other productive use must test liquid digestate with the following frequency:

(a) If the average storage time for liquid digestate is less than one month, then testing must be conducted at least monthly.

(b) If the average storage time for liquid digestate is one month or greater, but less than six months, then testing must be conducted at least quarterly.

(c) If the average storage time for liquid digestate is six months or greater, then testing must be at least semi-annually.

(6) All composting facilities subject to this rule must receive written approval from the department regarding any use of liquid digestate other than:

(a) Discharge to an approved wastewater treatment system; or

(b) Discharge under a water quality permit issued under ORS 468B.050.

(7) Composted material and digestate from type X feedstock must be disposed in a landfill permitted to receive domestic solid waste, unless a facility receives written approval from the department for alternative use of the material.

**Statutory/Other Authority:** ORS 459.045, 459A.025 & 468.020

**Statutes/Other Implemented:** ORS 459.005, 459.015 & 459.205

**History:**

DEQ 10-2019, temporary amend filed 02/27/2019, effective 02/27/2019 through 08/24/2019

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