

Pam Jenkins

Thank you for the painstaking job you have done in revising this regulation. The revisions seem well thought out. I have prepared a few comments on specific portions of the proposed revised rule, attached, and appreciate the opportunity to comment.

Pam Jenkins, P.E.
Practical Environmental Solutions

Comments on proposed revisions to WAC 173-350

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In WAC 173-350-100 Definitions.

1. The definition of “**closure plan**” uses the phrase “active life,” which is somewhat in conflict with the definition of “active area.” “Active area” includes the location(s) in a facility where solid waste activities “have been conducted” (past tense); therefore, a facility’s “active life” is forever, as long as solid waste is still present. Therefore, the definition of “closure plan” might be better stated as:

“Closure plan” means a written plan developed by an owner or operator of a facility detailing how a facility is to close at the ~~end of its active life~~ conclusion of its solid waste receiving or processing activities.”

2. Again, because the nature of a landfill is permanent, as long as waste is present, a modification of the definition of “**limited purpose landfill**” is suggested, as follows:

“Limited purpose landfill means a landfill that is not an inert waste landfill and receives or has received only solid wastes designated as nonhazardous and are not municipal solid wastes. Limited purpose landfills include, but are not limited to, landfills that receive or have received segregated industrial solid waste, construction, demolition and” *etc.*

3. A definition for “**functionally stable**” should be provided in the Definitions section. The phrase is first used in the definition of “**post-closure care**,” but the definition is buried many pages later in 173-350-400(11)(a) – Limited Purpose Landfills – Post-Closure Care Requirements. It would be advisable to reference this determination to a relatively standard statistical measure for those parameters that are monitored, or to an Ecology reference publication, rather than leave it up to the whim of the jurisdictional health department, which may not have much experience in statistical analysis of environmental parameters such as groundwater contaminant concentrations.
4. The definition of “**tank**” has an incomplete sentence. Also, under the proposed definition, a surface impoundment is a tank. Some sort of wording that would help distinguish “tank” from “surface impoundment” would be useful.
5. **WAC 173-350-210 (5) Recycling and material recovery facilities – Permit requirements – Documentation.** Paragraph (a) clearly specifies that construction documents submitted to the jurisdictional health department for review and approval must be prepared by a professional engineer registered in the state of Washington. This paragraph should also state that such documents must be reviewed for approval **for the jurisdictional health department by a professional engineer registered in the state of Washington**, who is either on staff at the jurisdictional health department or whose services are contracted by the health department. It simply does not work to have a non-engineer review engineering documents for approval. A non-engineer will not be prepared to understand the technical elements of facility design, equipment specification, liquid waste and air emissions capture or

treatment, liner and cover specifications, and so on, and therefore will not be able to identify errors or inappropriate design features in those documents. Suggested language for paragraph (a):

“The facility drawings and construction documents must be prepared by a professional engineer registered in the state of Washington, and must be reviewed by a professional engineer registered in the state of Washington who is employed by or whose services are contracted to the jurisdictional health department. Subject drawings and construction documents must include:” *etc.*

This comment applies to each location in the proposed revised regulation that addresses facility drawings and construction documents, as follows:

WAC 173-350-240 (5) Energy recovery and incineration facilities – Permit requirements – Documentation. (a)

WAC 173-350-310 (5) Transfer station and drop box facilities – Permit requirements – Documentation. (a)

WAC 173-350-320 (5) Piles used for storage or treatment – Permit requirements – Documentation. (a)

WAC 173-350-330 (5) Surface impoundments and tanks – Permit requirements – Documentation. (a)

WAC 173-350-350 (5) Waste tire storage – Permit requirements – Documentation. (a)

WAC 173-350-360 Moderate risk waste handling. (5) Moderate risk waste facilities – Permit requirements – Documentation. (a)

WAC 173-350-400 (5) Limited purpose landfills – Permit requirements – Documentation. (a)

WAC 173-350-410 (5) Inert waste landfills – Permit requirements – Documentation. (a)

In WAC 173-350-400 Limited purpose landfills.

6. **-400(1)(a)** The first sentence in this paragraph is not needed since it does not tell the reader anything. (“These standards apply to limited purpose landfills.”)
7. **-400(4)(e) Final closure system design.** Paragraph (I) addresses management of landfill gases. In reality, however, the standard of performance for landfill covers is the same as that stated in paragraph (4)(b)(i)(B) for landfill liners regarding control of methane and other explosive gases, originating from OSHA standards. I would strongly recommend the repetition of the language of (4)(b)(i)(B), which includes the subparagraphs (I), (II), and (III), in lieu of (4)(e)(i)(J). This would be stated as follows:

~~(J) Meets the requirements of regulations, permits and policies administered by the jurisdictional air pollution control authority of the department under chapter 70.94 RCW, Washington Clean Air Act and Section 110 of the Federal Clean Air Act.~~

“Controls methane and other explosive gases to ensure they do not exceed:

(I) Twenty-five percent of the lower explosive limit for the gases in facility structures (excluding the gas control or recovery system components);

(II) The lower explosive limit for gases in soil or in ambient air at the property boundary or beyond; and

(III) One hundred parts per million by volume of hydrocarbons (expressed as methane) in off-site structures.”

8. **-400(4)(i) Setback requirements.** Some additional language is recommended for inclusion in this paragraph to address both closure and redevelopment scenarios. While there is waste in a limited purpose landfill, i.e., for the entire life of the landfill, the 100-foot setback is useful for protecting the integrity of the landfill liner and cover, providing access to the landfill for cover repairs and landfill gas management and monitoring systems, and for providing a buffer zone to ensure early warning if landfill gas is migrating offsite. The current regulation language does not clearly address closure, post-closure, and redevelopment scenarios. Suggested revision to this paragraph:

“Limited purpose landfills, closure plans, and redevelopment plans must be designed to provide a setback of at least one hundred feet between the active area and the property boundary, or between the active area and the boundary of a non-landfill land use”....

9. **-400(6)(a)(iv)(B). Permit requirements** – Operating. Recommending the following expansion of paragraph (B):

“Control litter, dust, and nuisance odors, and other emissions, including landfill gases;”

10. **-400(8)(e) Environmental covenant.** This section should ensure that the as-built drawings for the landfill AND for closure of the landfill are maintained by the Department of Ecology. The following language is suggested for subparagraph -400(8)(e)(v):

“Identify the name and location of the administrative record for the property subject to the environmental covenant, including the construction record drawings of the landfill, the landfill closure plan, construction record drawings for the landfill closure, and associated construction quality assurance reports. These records must be retained in perpetuity and be accessible to the public via public records request.”

11. **-400(11) Limited purpose landfills – Post-closure care requirements.** When the jurisdictional health department determines the landfill has reached “functional stability” at the end of the post-closure care period, is the owner/operator of the landfill done with their site care responsibilities? Who will observe or monitor the landfill liner and cover integrity for the long term? At some point in time, the liner and cover materials will fail—perhaps 40

years down the road, but there needs to be some sort of long-term inspection responsibilities on the part of the jurisdictional health department to ensure that direct exposure to waste, leachate, or other contaminants will not occur. Perhaps some language should be added to this section indicating who takes responsibility after the post-closure care period is complete. This is especially important in redevelopment scenarios.

12. **WAC 173-350-500(1) Groundwater monitoring – General provisions.** In paragraph (c), the restriction of persons qualified to prepare reports, plans, procedures, and design specifications for groundwater monitoring to include only licensed geologists is too limiting and not commensurate with the qualifications of personnel who prepare the same types of documents for groundwater monitoring at MTCA cleanup sites, which is generally more complex than at limited purpose landfills. Suggested revision to this paragraph:

“(c) All reports, plans, procedures, and design specifications required by this section must be prepared by a licensed professional hydrogeologist in accordance with the requirements of chapter 18.220 RCW, Geologists, or by a licensed professional environmental engineer in accordance with the requirements of chapter 18.43 RCW, Engineers and Land Surveyors.”