



DEPARTMENT OF
ECOLOGY
State of Washington

Rule Implementation Plan

**Criteria for Municipal Solid Waste
Landfills**

Chapter 173-351 WAC

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Purpose

Ecology provides the information in this implementation plan to meet agency and Administrative Procedure Act (RCW 34.05.328) requirements related to rule adoptions.

Introduction

The purpose of this rule implementation plan is to inform those who must comply with Chapter 173-351 WAC, Criteria for Municipal Solid Waste Landfills, about how the Department of Ecology (Ecology) intends to:

- Implement and enforce the rule.
- Inform and educate persons affected by the rule.
- Promote and assist voluntary compliance for the rule.
- Evaluate the rule.
- Train and inform Ecology staff about the new or amended rule.

Also included in this plan is information about:

- Supporting documents that may need to be written or revised because of the new rule or amended rule.
- Other resources where more information about the rule is available.
- Contact information for Ecology employees who can answer questions about the rule implementation.

Acronyms:

- ‘Ecology’ is the Washington Department of Ecology
- ‘W2R’ is the Washington Department of Ecology’s Waste 2 Resources Program
- ‘JHD’ is jurisdictional health department

Implementation and Enforcement

- Jurisdictional health departments (JHDs) will need to adopt ordinances to enforce rule amendments. Some have ordinances in place already with language adopting Chapter 173-351 WAC as adopted or *hereafter amended*. Regional Waste 2 Resources (W2R) staff will inform JHDs with landfills affected by the rule about the need to adopt the amended rule, will assist with language for ordinances, and will review ordinances as requested. JHDs are responsible for enforcement,
- Regional W2R staff (facility specialists, engineers and hydrogeologists) will meet with affected landfill owners/operators and the JHDs that permit them. There are 16 active landfills and 11 closed landfills in the state affected by the amended rule. At such meetings, staff will cover the following topics:
 - Effective dates:

- By May 31, 2013 – Owners/operators must submit revised groundwater sampling and analysis plans (SAP) following the permit modification process to address sampling and testing for total metals. At the first sampling event after the JHD approves the SAP, owners/operators must sample in accordance with the revised SAP. Details are in WACs 173-351-430(2)(b) and 173-351-440(2).
- By November 1, 2013 – Owners/operators must submit revised post-closure plans following the permit modification process to address functional stability criteria, environmental covenants, and account for prevailing wages related to post-closure care. They will need to base the length of post-closure care on leachate, landfill gas, groundwater quality and cover stability. Details in WAC 173-351-500(2)(c).

Changes to cost estimates in the post-closure plan will also require that owners or operators adjust the amount of financial assurance provided. Owners/operators will need to alter both financial assurance estimates and update funding mechanisms for post-closure care by this deadline. Closure costs must account for prevailing wage and staff will recommend that owners/operators submit adjustments to closure financial assurance costs and mechanisms by this date if not completed earlier.

- Regional W2R staff will explain the new requirement to file environmental covenants at closure. WAC 173-351-500(1)(h)
- Regional W2R staff will explain the new requirement for owners/operators or their consultants to submit groundwater monitoring data in accordance with groundwater monitoring guidelines. One rule change includes the need for owners/operators or their lab or consultants to input groundwater monitoring data into Ecology’s EIM Database within sixty days of receipt of analytical data. WAC 173-351-415(3)
- Regional W2R staff will explain that for any change related to a requirement of the rule, an owner/operator will need to go through the permit modification process. This stems from changing the definition of “modification.” It is already common practice for owners/operators to unofficially follow the permit modification procedures now. This change will ensure that JHDs and Ecology review, comment and approve proposed changes. WAC 173-351-100

The rule intentionally does not require permit modification requests to be in a specific format. While the rule lists information owners/operators must provide to explain modifications, Ecology desires to keep the process simple by allowing requests in a variety of formats. WAC 173-351-720(6)

One permit modification that owners/operators will need to request regularly relates to financial assurance. Financial assurance costs must be updated annually to adjust for inflation. Staff will explain that owners/operators must now submit

financial assurance changes through the permit modification process. WAC 173-351-600(2)(a)(ii) and (3)(a)(ii)

- Regional W2R staff will explain the requirement to submit financial assurance audit findings for reserve accounts or trust funds to JHDs and Ecology. WAC 173-351-600(5)(f)(i) and (ii)
- Where they are not already in place, regional W2R staff will explain the need to have vertical benchmarks used for various elevation measurements to be based on the North American vertical datum of 1988 (NAVD88). WAC 173-351-410(3)(b)
- Staff will explain Research, Development & Demonstration permits now allowed under WAC 173-351-710.
- For landfills meeting “arid design” criteria:
JHDs and regional W2R staff will need to assess whether owners/operators of landfills meeting arid design criteria under the old rule must submit information to show they meet new alternative design criteria in the amended rule. New standards include groundwater quality criteria in Chapter 173-200 WAC, control of methane, and adjustments to four concentrations in Table 1. Regional W2R staff will discuss any needed information with owners/operator. WAC 173-351-300(1)(b)
- Ecology’s Toxics Cleanup Program (TCP) maintains the EIM database. W2R has been working with TCP to ensure Ecology has adequate staff resources to assist owners/operators and their consultants in inputting groundwater monitoring data. W2R has also designated a lead contact for the program to assist in meeting the new requirement.
- Regional W2R staff will ensure owners/operators meet effective dates and new requirements through correspondence with JHDs and affected landfill owner/operators and through review of renewed permits. As authorized in RCW 70.95.185, Ecology can appeal permits that violate the amended rule.

Informing and Educating Persons Affected by the Rule

W2R will use the rule development web site and ListServ to communicate rule adoption with interested persons and stakeholders. Regional W2R staff will set up meetings with affected landfill owner/operators and JHDs to discuss changes. Staff will be responsive to emails and phone calls about the rule. As we have done throughout the rule-writing process, we will seek opportunities and be available to present at solid waste professional and health agency conferences and meetings, and solid waste advisory committee meetings.

Promoting and Assisting Voluntary Compliance

Ecology does not have authority in Chapter 173-351 WAC or in the implementing statute to enforce provisions in the rule. Those authorities are granted to JHDs. We will continue to assist the JHDs, owners or operators of affected landfills, and other affected parties through meetings, emails and phone calls to ensure they understand the rule requirements and needed changes. W2R will provide rule interpretation, background information and assistance with engineering and hydrogeology. Through these interactions, W2R hopes owners/operators make changes without forcing JHDs to take formal enforcement action.

While implementation of the rule relies primarily on voluntary compliance and JHD enforcement authority, Ecology maintains the right to appeal permits issued by JHDs or use authorities granted under other laws, such as Chapter 90.48 RCW, Water Pollution Control, to ensure owners and operators manage solid waste in a manner consistent with Chapter 173-351 WAC.

Evaluating the Rule

W2R staff that will work on implementation meet regularly (every other month). We will have ongoing topics regarding Chapter 173-351 WAC and these amendments to ensure W2R staff keep implementation at the forefront of our interactions with affected landfill owners/operators. We will discuss progress with owners/operators in meeting deadlines, JHDs adopting ordinances and challenges in meeting new requirements. We may measure the effectiveness of these efforts by:

- Setting deadlines for regional W2R staff to have meetings with affected landfills and their JHDs to discuss the items above under Implementation and Enforcement.
- Create a spreadsheet to track progress at affected landfills in meeting milestones: revising SAPs; begin testing for total metals; revising post-closure care period; adjusting financial assurance costs and mechanisms; inputting groundwater data into EIM; and site benchmarks to NAVD88.
- Tracking the number of JHDs that have ordinances adopting the amended version of Chapter 173-351 WAC.
- By using other tools appropriate to measure effectiveness.

Training and Informing Ecology Staff

Ecology staff who worked on drafting the rule amendments have been and will continue to meet regularly with regional W2R staff responsible for implementation. These staff (known as the Landfill/Corrective Action Job-Alike Group) meet every other month to discuss landfill topics. Amendments to Chapter 173-351 WAC have been and will continue to be a main topic at these meetings. We will discuss background information, effective dates, interpretations, difficulties, solutions to problems and engineering and hydrogeology.

List of Supporting Documents that May Need to be Written or Revised

- Ecology is in the final stage of updates, including adding amended rule criteria, to groundwater monitoring guidance (*Guidance for Groundwater Monitoring at Landfill and other Facilities Regulated Under Chapters 173-304, 173-306, 173-350 and 173-351 WAC*). Amendments to Chapter 173-351 WAC will require owners/operators to follow groundwater monitoring procedures as outlined in the guidance. We expect the guidance to be final and published before the effective date of the amended rule.
- Ecology may need to create guidance on estimating the length of the post-closure care period to address new functional stability criteria (related to leachate and gas generation, groundwater quality and cover stability). Staff have discussed the idea of hiring outside experts/consultants to create guidance for Ecology.

More Information

Visit the rule making website for Chapter 173-351 WAC at <http://www.ecy.wa.gov/laws-rules/activity/wac173351.html>.

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