



**PUGET SOUND
Clean Air Agency**

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Bill Flagg
Department of Ecology
Air Quality Program
P.O. Box 47600
Olympia, WA 98504-7600

Submitted as attachment through online comment submittal portal

Dear Mr. Flagg:

The Puget Sound Clean Air Agency (Agency) appreciates the opportunity to comment on Ecology's proposed landfill methane regulations in Chapter 173-408 WAC. This new chapter, and the legislation that led to its creation, will be an important tool to reduce emissions of methane, a potent greenhouse gas. The reduction of greenhouse gas emissions is a high priority for the Agency.

The Agency appreciates the outreach steps that Ecology has already taken during the drafting of the rule. Ecology has demonstrated a strong willingness to work with local clean air agencies to assure that the final result is a clear, enforceable regulation. In that spirit, the Agency offers these comments regarding the text of the rule and the logistics of its implementation.

1. Training for Co-Regulators

While Ecology is tasked with developing the rule, much of the implementation will fall to local clean air agencies. As such, once the final rule language is adopted, Ecology should provide thorough and ongoing training to help local programs implement the rule. This should include intensive outreach to co-regulators during the initial compliance periods, as well as sustained outreach related to the ongoing compliance requirements. Topics on which Ecology should provide training include the following:

- Criteria for approving a design plan and determining if the design is adequate to meet the rule requirements
- Procedures for instantaneous and integrated surface emissions monitoring
- Best practices for reviewing periodic reports landfills will submit to agencies
- Recommendations for incorporating only the applicable provisions of the rule into Air Operating Permits for landfills, and for third-party operators of control system components
- Training for inspectors and permit writers regarding how Ecology's rule complements/conflicts with the federal landfill rules, especially with respect to standards, limitations, monitoring, and reporting requirements

2. Interaction with Other Regulatory Programs and Permits

In WAC 173-408-080, there is no discussion of how the installation or modification of a GCCS interacts with the Notice of Construction requirements

in WAC 173-400. Ecology should consider adding language that nothing in this rule supersedes the applicable provisions of WAC 173-400 (related to New Source Review) or 173-460 (related to Toxic Air Contaminants). This same concern applies to the decommissioning or removal of a GCCS in 173-408-090. WAC 173-408-090(6) does state that this section does not supersede any requirements that exist under the state Clean Air Act. While a permit or order issued pursuant to authorities granted under the state Clean Air Act would presumably be covered under this provision, the rule should state so explicitly. The rule should make clear that sections 080 and 090 supersede neither New Source Review requirements, nor the requirements related to substantial alterations of control devices in WAC 173-400-114.

3. Third-Party Operators of Control System Components

WAC 173-408-080(1)(b) states that if the owner or operator of the landfill partners with a third-party owner or operator to operate a portion of the gas collection and control system or energy recovery device, then the owner or operator of the relevant portion of the gas collection and control system or energy recovery device is the responsible party obligated to comply with the requirements of this chapter. There are several locations where adding a reference to the third-party operator of the control device would underscore this concept. The Agency suggests the following additions:

- WAC 173-408-120(4) Gas collection and control system leak procedures: “The owner or operator of a MSW landfill...” should be changed to “The owner or operator of a MSW landfill *or the third-party operator of a landfill gas control system...*”.
- WAC 173-408-160 Recordkeeping requirements. “(1) The owner or operator of a MSW landfill must maintain records as prescribed in this subsection.” Should be changed to “(1) The owner or operator of a MSW landfill *and the third-party operator of a landfill gas control device* must maintain records as prescribed in this subsection, *as applicable.*”
- WAC 173-408-130(1) should clarify whether third-party operators of control devices are eligible to request alternative compliance measures.

4. Limited Applicability of Alternative Compliance Measures

WAC 173-408-130 allows for approval of alternative compliance measures for various aspects of the rule. Landfills may have requirements from other sources, such as federal rules or NOC Orders of Approval. The rule should clarify that alternative compliance measures approved pursuant to WAC 173-408-130 apply only to the provisions of this rule, WAC 173-408, and that they do not supersede requirements from other regulations or orders. Similarly, Ecology should revise this section to state that alternative measures approved for compliance with NOC Orders of Approval or federal regulations would also need to be explicitly approved as alternative compliance measures under this rule (e.g., that approval of an alternative for compliance with federal New Source Performance Standards does not automatically mean that alternative is approved for compliance with this chapter).

5. Surface Methane Concentration Limits

WAC 173-408-100 establishes methane concentration limits near the surface of the landfill. The rule establishes a limit of 500 ppm for instantaneous surface emissions monitoring and 25 ppm for integrated surface emissions monitoring. The rule then lists corrective actions that are to be taken if an exceedance is measured. However, the rule does not explain whether a measured exceedance is, in and of itself, a violation of the rule, or if following the proper sequence of corrective actions after a measured exceedance means that no violation of the rule has occurred. Ecology should explain in the rule whether a measured exceedance of the limit is, on its own, a violation, or whether a violation only occurs if the subsequent corrective actions are not taken. Not including this in the rule could lead to differences in interpretation and execution among the various co-regulators who will be enforcing it.

6. Clarifications to Calculation Methodologies and Appendix

In the procedures given in WAC 173-408-120(5), Ecology should clarify that the IPCC document should be Chapter 3 of Volume 5 of the IPCC Guidelines for National Greenhouse Gas Inventories. The proposed rule text does not include a volume number. Additionally, it appears that the equations in Appendix I are intended to capture all the relevant equations from this IPCC reference; however, there are no references to Appendix I in WAC 173-408-120(5), so it is unclear if the equations in the appendix are sufficient.

Also in Appendix I, the constants “k” and “M” in Equation 2 are not defined. Presumably, these are the same constants from Equation 6; however, this is not stated explicitly. Ecology should define these constants in Equation 2.

The introduction to Table 1 refers to the anaerobic decomposition rate constant “k” (lower case). However, the table uses “K” (upper case). Ecology should (1) confirm whether or not the “k” references used in the equations of the appendix are indeed the same constant referred to in Table 1, and, if so, (2) use a lower case “k” in Table 1.

The Agency again wishes to thank Ecology for their extensive outreach throughout this rule development process.

Respectfully submitted,



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