State of Oregon

Department of Environmental Quality — Memorandum

Date: November 24, 2008

To: Environmental Quality Commission

From: Dick Pedersen, Director

Subject: Agenda Item L Rule Adoption: Adoption of Federal Air Quality Regulations
December 11-12, 2008 EQC Meeting

Why this is Important

These rules are important to protect human health, ensure that Oregon maintains delegation of federal programs that regulate hazardous air pollutants and new sources, fill gaps created by court decisions about some of the federal rules and improve Oregon's implementation of these programs. A key provision in these rules exceeds federal regulations for reducing benzene exposure from gasoline dispensing facilities.

Department Recommendation

The Department of Environmental Quality recommends that the Environmental Quality Commission adopt the proposed rule amendments to OAR chapter 340, divisions 200, 216, 228, 230, 232, 242, and 244 as set out in attachment A of the staff report. The Department of Environmental Quality also recommends that the EQC amend the State of Oregon Clean Air Act implementation plan (OAR 340-200-0040) to include the amendments to OAR 340-244-0232 through 0252 and the amendments made to OAR 340 Divisions 200, 232, and 242 and that the EQC authorize the Department of Environmental Quality to submit these amendments to the state implementation plan to the U.S. Environmental Protection Agency for approval.

Background and Need for Rulemaking

Area Source National Emission Standards for Hazardous Air Pollutants (NESHAP)

The Clean Air Act requires the U.S. Environmental Protection Agency to identify the 30 hazardous air pollutants emitted from area sources[1] posing the greatest threat to public health in urban areas.

The Clean Air Act also directs the EPA to regulate categories of area sources to ensure 90 percent of the emissions of these 30 hazardous air pollutants are subject to NESHAP. EPA recently adopted 17 area source NESHAPs affecting:

- Flexible polyurethane foam fabrication and production;
- Gasoline terminals, bulk plants, pipeline facilities, and dispensing facilities;
- Glass, clay ceramics, and lead battery manufacturing;

[1] Area sources, also called non-major, are small and mid-sized commercial and industrial operations.

- Hospital sterilizers;
- Metal processing and production; and
- Wood preserving.

Oregon sources are required to comply with the federal NESHAP requirements whether or not the EQC adopts the federal standards.

General Permits
New general air contaminant discharge permits are needed to reduce permitting costs for sources affected by the new area source NESHAPs, many which are small businesses.

New general air contaminant discharge permit fee categories with lower fees are needed for area source NESHAPs with limited requirements and where existing DEQ resources can be leveraged to reduce the cost of implementing the area source NESHAPs.

Gasoline Dispensing Facilities
Benzene is a known carcinogen and is present in high concentrations in many Oregon communities. To reduce benzene exposure in Oregon, standards more stringent than the new federal NESHAP for gasoline-dispensing facilities are needed.

Municipal Waste Combustors
The EPA amended emission guidelines for large municipal waste combustors by tightening them to reflect actual performance levels. To respond to public concern and actual performance levels in Oregon, rule amendments are needed to implement standards more stringent than the newly-tightened federal emissions guidelines.

Utility Mercury Rule
The federal clean air mercury rule was vacated by a federal court on February 8, 2008. The clean air mercury rule provided a mercury cap-and-trade program that applied to coal-fired power plants. Rule amendments are needed to remove mercury trading provisions and add federal monitoring provisions vacated by the federal court ruling.

Effect of Rule

This proposed rule adoption will have the following effects:

New and Amended General Air Contaminant Discharge Permits
To implement the area source NESHAP, the proposed rules would create six new general air contaminant discharge permits for several categories of

sources. Without adopting the new general air contaminant discharge permits, sources affected by the area source NESHAP must have a simple air contaminant discharge permit or standard air contaminant discharge permit. The annual cost for simple and standard air contaminant discharge permits ranges from $1,920 to $7,680, and general air contaminant discharge permits currently range from $720 to $1,872. [See Attachment A-1, OAR 340-216-0060(5), page 2, and Table 1, pages 3-6]

New General Air Contaminant Discharge Permit Fee Categories

The proposed rules would add two new general air contaminant discharge permit fee categories. The new fee categories would apply to area source NESHAPs that have limited requirements, such as the hospital sterilizer NESHAP. The new fee categories would also apply when existing DEQ resources can be leveraged to minimize the cost of implementing an area source NESHAP, such as using existing DEQ land quality inspectors to ensure compliance with the gasoline dispensing NESHAP. The proposed fees for the new fee categories are $120 and $360. [See Attachment A-1, Table 2, pages 7-8]

Gasoline Dispensing Standards

The proposed rules would adopt standards to implement the new federal gasoline dispensing NESHAP and more stringent standards to further reduce benzene exposure in Oregon. The federal NESHAP requires emission controls at high-volume facilities that dispense 100,000 gallons or more per month. The proposed rules would require emission controls at moderate-volume facilities that dispense an average of 40,000 gallons or more per month.

The required emission controls are stage I vapor controls used to capture gasoline vapors emitted during filling of gasoline storage tanks. Regulations currently require Stage I vapor controls in the Portland, Medford and Salem areas to control ozone; they are voluntary in other parts of Oregon.

Additionally, the proposed rules would prohibit “topping off” motor vehicle gasoline tanks during fueling. Topping off causes spillage, gasoline evaporation, high levels of benzene exposure and increased costs to consumers. Topping off can also damage evaporative emissions controls installed on newer vehicles.

Controlling gasoline vapors reduces benzene exposures at and near gasoline dispensing facilities, contributes to continuing compliance with stricter ozone standards and conserves gasoline. Table 1, below, illustrates achievable statewide reductions achieved through this rule adoption.

Table 1
Annual Statewide Reductions from the Filling of Gasoline Storage Tanks (Does Not Include Vehicle Fueling Emissions)

	Benzene Emissions		**VOC Emissions**		**Fuel Savings**	
	Tons	Percent	Tons	Percent	Gallons	Percent
Federal NESHAP	12	37	680	37	221,000	0.016
Proposed Rule	14	44	800	44	260,000	0.018
Combined	26	81	1,480	81	480,000	0.037

The proposed rules would also merge separate rules covering gasoline dispensing facilities into one set of rules and defer the requirement that gasoline dispensing facilities obtain an air quality permit until January 2010. [See Attachment A-2, OAR 340-200-0040(2), page 1, OAR 340-232-0070, pages 2-3, OAR 340-232-0520, pages 4-5, OAR 340-244-0232 through 0252, pages 5-11; Attachment A-2a, Tables 4 and 5, pages 1-2; Attachment A-4, OAR 340-244-0030, pages 7-11]

Municipal Waste Combustor Standards
The proposed rules would adopt standards more stringent than federal emission guidelines for large municipal waste combustors in response to public concern, and to reflect actual performance levels.

The EPA amended the emission guidelines for large municipal waste combustors by tightening the emission guidelines to reflect municipal waste combustors' actual performance levels. Covanta, located in Brooks, owns and operates Oregon's only large municipal waste combustor. Covanta's cadmium, lead and dioxin/furan emissions are lower than the new federal guidelines and the proposed rules would lower Oregon's standards to a level that limits how much Covanta's emissions of these pollutants can increase. [See Attachment A-3, OAR 340-230-0300 through 0359, pages 1-38, Table 1, pages 3-6]

Utility Mercury Rule
The proposed rules would amend Oregon's existing utility mercury rule by removing mercury trading provisions vacated by a federal court. Oregon's existing utility mercury rule requires continuous mercury emission monitoring beginning on July 1, 2009 and this rulemaking would insert monitoring requirements formerly referenced by the federal clean air mercury rule. The removal of the federal clean air mercury rule does not reduce the stringency of Oregon's utility mercury rule because the existing rule was already more

stringent than the federal clean air mercury rule. In particular, retaining the requirement that coal-fired power plants control 90 percent of the mercury emissions by 2012 and retaining the 2018 statewide mercury emission cap for coal-fired power plants, would indirectly limit the number of coal-fired power plants that could operate in Oregon. [See Attachment A-5, OAR 340-228-0600 through 0678, page 1-79; Attachment A-5a, Tables 1 and 2, pages 1-2; Attachment A-5b, Equations 1-5, pages 1-2]

New Source Performance Standards (NSPS)
Adopt, by reference, new NSPS affecting petroleum refineries, chemical manufacturers, stationary internal combustion engines and stationary combustion turbines. [See Attachment A-4, OAR 340-238-0040, page 1, OAR 340-238-0060, pages 3-6]

NSPS
Adopt changes made to the federal NSPS through July 1, 2008. [See Attachment A-4, OAR 340-238-0040 through 0060, pages 1-6]

Streamline Early Reduction Provisions
Remove the early reduction provisions from Oregon's federal hazardous air pollutant program and replace them with equivalent federal regulations adopted by reference. [See Attachment A-4, OAR 340-244-0030, pages 7-11, OAR 340-244-0100 through 0180, pages 12-19]

New Area Source NESHAPs
Adopt by reference 17 new federal area source NESHAPs. [See Attachment A-4, OAR 340-244-0030, pages 7-11, OAR 340-244-0220, pages 20-23]

NESHAPs
Adopt changes made to the federal NESHAP through July 1, 2008, excluding changes made to the perchloroethylene dry cleaning NESHAP since July 1, 2006. Adoption of changes made to the perchloroethylene dry cleaning NESHAP will be proposed in a future rulemaking. [See Attachment A-4, OAR 340-244-0030, pages 7-11, OAR 340-244-0220, pages 20-23]

Commission Authority

The commission has authority to take this action under ORS 468.020, 468A.025 and 468A.310.

Stakeholder Involvement

DEQ met with environmental and business associations about proposing rules more stringent than the federal gasoline dispensing NESHAP. DEQ also convened a fiscal impact advisory committee to obtain advice on the effect of the rule. The committee noted that the draft rules would impose a significant adverse impact on small businesses. The proposed rules were modified based on committee concerns. Please see Attachments G and H for details.

Public Comment

The public comment period extended from July 15, 2008, to August 26, 2008, and included public hearings in Bend, Medford and Portland. No one testified at the first two hearings and one person testified at the third hearing. Seventeen commenters submitted comments by standard mail, fax or e-mail. Attachment B provides the summary of public comments and DEQ's responses.

Key Issues

Gasoline Dispensing NESHAP Stage 1 Vapor Control Threshold

The rules as proposed in the public notice would have lowered the federal threshold requiring stage I vapor controls from 100,000 gallons per month to 20,000 gallons per month. Industrial representatives expressed concern that small rural stations would experience economic hardship if required to install stage I vapor controls. Environmental groups support lowering the threshold for stage I vapor controls to 20,000 gallons per month. Both groups requested that DEQ provide funding assistance to pay for the controls.

Response: The proposed rules would change the threshold for installing stage I vapor controls at gasoline dispensing facilities to an average of 40,000 gallons per month. DEQ estimates demonstrate that changing to a threshold of 40,000 gallons per month would be protective of public health. This will ensure that most small rural facilities are exempted from the requirement to install stage I vapor controls. This will also ensure facilities exceeding protective public health levels are well controlled.

Approximately 60 percent of Oregon's gasoline dispensing facilities have already installed Stage 1 vapor controls. To further reduce benzene exposures in Oregon, the proposed rules would require the operation and maintenance of all Stage 1 vapor controls, regardless of the throughput of the gasoline dispensing facility.

DEQ does not have any funding available to help install stage I vapor controls. Though raising the threshold requiring controls should reduce the number of facilities that need funding assistance, DEQ will continue to explore funding sources.

Municipal Waste Combustor standards

Covanta and industry groups disagree with Oregon adopting emission limits more stringent than federal standards and stated there was no information to support going beyond the federal standards.

Response: Covanta is Oregon's only large municipal waste combustor located in Brooks. DEQ acknowledges industry concern when DEQ proposes standards more stringent than federal requirements. However, it is important to note that in this case EPA has not set emission standards for municipal waste combustor facilities, but instead established emission guidelines. When EPA adopts an emission standard, such as a NSPS or NESHAP, the standard applies whether or not Oregon adopts the standard. Emission guidelines are different in that they are intended as guidance to states based on EPA's review of the best performing sources around the country. In practice, the guidelines set presumptive minimum standards. States are required to set standards at least as protective as the federal emission guidelines based on their own review of technology.

DEQ is recommending the proposed standards based on a review of Covanta's historical performance, which has consistently demonstrated that Covanta's emissions are significantly lower than the federal emission guidelines for cadmium, lead, and dioxins/furans. Moreover, the proposed standards are set conservatively to provide Covanta with ample room for operational flexibility without risk of violation. Because of this, Covanta would not need to install any additional controls to comply with the proposed standards.

<u>Utility Mercury Rule control plan deadline and compliance date</u>
PGE requested revisions to the draft rules to change the following dates:

- Change the mercury control plan submittal date to within 90 days of EPA approval of the regional haze state implementation plan.
- Change the compliance date to the date specified in the EPA-approved regional haze state implementation plan for installation and operation of sulfur dioxide controls. PGE noted DEQ's repeated stated intent to link the mercury rules with the regional haze state implementation plan, as the mercury controls and the sulfur dioxide controls are inextricably linked.

Response: DEQ agrees mercury controls and the sulfur dioxide controls are linked because they use the same baghouse system. The regional haze state implementation plan proposal for the Boardman plant is still under development and it is not yet known what the compliance date will be for the installation of sulfur dioxide controls. Therefore, DEQ plans to propose any adjustment to the mercury control system compliance date during the regional haze rulemaking.

<u>Utility Mercury Rule emission caps</u>
Environmental groups requested a reduction in Oregon's mercury emission cap if the Boardman plant closes.

PGE requested that DEQ eliminate the mercury emissions cap because it was part of the vacated federal cap-and-trade program.

Response: Though the federal requirement that Oregon have a cap on mercury emissions was vacated in early 2008, the proposed rules retain the 60 pounds-per-year mercury cap starting in 2018. Without the mercury emission cap, the utility mercury rule would still ensure that any new coal-fired power plants are well controlled, but would not limit the total amount of mercury emissions from all coal-fired power plants. Since the original utility mercury rule did not allow trading after 2018, retaining the mercury emission cap maintains the original level of stringency in the utility mercury rule before the clean air mercury rule was vacated.

Next Steps

- DEQ will continue to provide outreach and compliance assistance to sources affected by the new area source NESHAP.
- In February 2009, DEQ will submit NSPS and NESHAP delegation requests to EPA.
- Title V and air contaminant discharge permits will be updated with new NSPSs and NESHAPs.
- DEQ will submit an update of its state implementation plan to implement the federal emission guidelines for municipal waste combustors to EPA for approval.

Attachments

A. Proposed Rule Revisions
   1. Air Contaminant Discharge Permits
   2. Emission Standards for Gasoline Dispensing Facilities
   3. Municipal Waste Combustors
   4. New Source Performance Standards and National Emission Standards for Hazardous Air Pollutants
   5. Utility Mercury Rule

B. Summary of Public Comments and Agency Responses
C. Presiding Officer's Reports on Public Hearings
D. Statement of Need and Fiscal and Economic Impact
E. Relationship to Federal Requirements Questions
F. Land Use Evaluation Statement
G. General Permits
   1. Batch Vapor/In-Line Degreasers
   2. Batch Cold/Vapor/In-Line/Degreasers
   3. Bulk Gasoline Plants
   4. Clay Manufacturing
   5. Hospital Sterilizers

6. Secondary Nonferrous Metal
7. Gasoline Dispensing – Stage I
8. Gasoline Dispensing – Stage II
9. Wood Preserving

H. Fiscal Rulemaking Advisory Committee Meeting Notes and Committee Recommendations

I. Rule Changes Since Close of Public Comment Period

Available Upon Request

1. Legal Notice of Hearing
2. Cover Memorandum from Public Notice
3. Written Comment Received
4. Rule Implementation Plan
5. Advisory Committee Membership and any written recommendation
6. List of new and amended NSPS and NESHAP proposed for EQC adoption

Approved:

Section: ______________________________

Division: ______________________________

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DEPARTMENT OF ENVIRONMENTAL QUALITY

DIVISION 216

AIR CONTAMINANT DISCHARGE PERMITS

340-216-0060
General Air Contaminant Discharge Permits
(1) Applicability.
(a) The Commission may issue a General ACDP under the following circumstances:
(A) There are several sources that involve the same or substantially similar types of operations;
(B) All requirements applicable to the sources can be contained in a General ACDP;
(C) The emission limitations, monitoring, recordkeeping, reporting and other enforceable conditions are the same for all sources covered by the General ACDP; and
(D) The pollutants emitted are of the same type for all covered sources.
(b) Permit content. Each General ACDP must include the following:
(A) All relevant requirements;
(B) Generic PSELs for all pollutants emitted at more than the deminimis level in accordance with OAR 340, division 222;
(C) Testing, monitoring, recordkeeping, and reporting requirements necessary to ensure compliance with the PSEL and other applicable emissions limits and standards; and
(D) A permit duration not to exceed 10 years.
(c) Permit issuance procedures: A General ACDP requires public notice and opportunity for comment in accordance with ORS 183.325 to 183.410. All General ACDPs are on file and available for review at the Department's headquarters.
(2) Source assignment:
(a) Application requirements. Any person requesting that a source be assigned to a General ACDP must submit a written application in accordance with OAR 340-216-0040 that includes the information in OAR 340-216-0040(1), specifies the General ACDP source category, and shows that the source qualifies for the General ACDP.
(b) Fees. Applicants must pay the fees set forth in Table 2 of OAR 340-216-0020.
(c) Source assignment procedures:
(A) Assignment of a source to a General ACDP is a Category I permit action and is subject to the Category I public notice requirements in accordance with OAR 340, division 209.
(B) A person is not a permittee under the General ACDP until the Department assigns the General ACDP to the person.
(C) Assignments to General ACDPs terminate when the General ACDP expires or is modified, terminated or revoked.
(3) Commission Initiated Modification. If the Commission determines that the conditions have changed such that a General ACDP for a category needs to be modified, the Commission may issue a new General ACDP for that category and the Department may assign all existing General ACDP permit holders to the new General ACDP.
(4) Rescission. In addition to OAR 340-216-0082 (Termination or Revocation of an ACDP), the Department may rescind an individual source's assignment to a General ACDP if the source no longer meets the requirements of this rule or the conditions of the permit, including, but not limited to the source having an ongoing, reoccurring or serious compliance problem. Upon rescinding a source's

assignment to a General ACDP the Department will place the source on a Simple or Standard ACDP. The Commission may also revoke a General ACDP if conditions, standards or rules have changed so the permit no longer meets the requirements of this rule.
(5) General ACDPs adopted by reference. The following General ACDPs are adopted by this reference and incorporated herein:
(a) AQGP-001, Hard chrome platers (February 3, 2006)[3];
(b) AQGP-002, Decorative chrome platers (February 3, 2006)[2];
(c) AQGP-003, Halogenated solvent degreasers -- batch cold (December 12, 2008~~August 10, 2001~~)[2];
(d) AQGP-004, Halogenated solvent degreasers -- batch vapor and in-line (December 12, 2008~~August 10, 2001~~)[2];
(e) AQGP-005, Halogenated solvent degreasers -- batch cold, batch vapor, and in-line (December 12, 2008~~August 10, 2001~~)[2];
(f) AQGP-006, Dry cleaners (August 10, 2001)[1];
(g) AQGP-007, Asphalt plants (October 17, 2007)[3];
(h) AQGP-008, Rock crushers (October 17, 2007)[2];
(i) AQGP-009, Ready-mix concrete (October 17, 2007)[1];
(j) AQGP-010, Sawmills, planing mills, millwork, plywood manufacturing and veneer drying (October 17, 2007)[3];
(k) AQGP-011, Boilers (October 17, 2007)[2];
(l) AQGP-012, Crematories (October 17, 2007)[2];
(m) AQGP-013, Grain elevators (August 10, 2001)[1];
(n) AQGP-014, Prepared feeds, flour, and cereal (August 10, 2001)[1];
(o) AQGP-015, Seed cleaning (August 10, 2001)[1];
(p) AQGP-016, Coffee roasters (August 10, 2001)[1];
(q) AQGP-017, Bulk gasoline plants (December 12, 2008~~August 10, 2001~~)[1];
(r) AQGP-018, Electric power generators (August 10, 2001)[2];~~.~~
(s) AQGP-019, Clay ceramics (December 12, 2008)[1];
(t) AQGP-020, Hospital sterilization (December 12, 2008)[4];
(u) AQGP-021, Secondary nonferrous metals (December 12, 2008)[1];
(v) AQGP-022, Gasoline dispensing facilities – stage I (December 12, 2008)[5];
(w) AQGP-023, Gasoline dispensing facilities – stage II (December 12, 2008)[4];
(z) AQGP-024, Wood preserving – (December 12, 2008)[4].
NOTES: [1] The referenced General ACDPs specify that they are Fee Class One under OAR 340-216-0020, Table 2. [2] The referenced General ACDPs specify that they are Fee Class Two under OAR 340-216-0020, Table 2. [3] The referenced General ACDPs specify that they are Fee Class Three under OAR 340-216-0020, Table 2. [4] The referenced General ACDPs specify that they are Fee Class Four under OAR 340-216-0020, Table 2. [5] The referenced General ACDPs specify that they are Fee Class Five under OAR 340-216-0020, Table 2.
NOTE: Except for OAR 340-216-0060(5), this rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the EQC under OAR 340-200-0040.
[ED. NOTE: Tables referenced in this rule are available from the agency.]
Stat. Auth.: ORS 468 & 468A
Stats. Implemented: ORS 468.020 & 468A.025
Hist.: DEQ 14-1998, f. & cert. ef. 9-14-98; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from

340-028-1725; DEQ 6-2001, f. 6-18-01, cert. ef. 7-1-01; DEQ 10-2001, f. & cert. ef. 8-30-01; DEQ 4-2002, f. & cert. ef. 3-14-02; DEQ 2-2006, f. & cert. ef. 3-14-06; DEQ 8-2007, f. & cert. ef. 11-8-07

Table 1

Part A: Activities and Sources

The following commercial and industrial sources must obtain a Basic ACDP under the procedures set forth in 340-216-0056 unless the source is required to obtain a different form of ACDP by Part B or C hereof: (Production and emission parameters are based on the latest consecutive 12 month period, or future projected operation, whichever is higher. Emission cutoffs are based on actual emissions.)

1. ** Autobody Repair or Painting Shops painting more than 25 automobiles in a year.
~~2.Natural Gas and Propane Fired Boilers (with or without #2 diesel oil back-up(a)) of 10 or more MMBTU but less than 30 MMBTU/hr heat input constructed after June 9, 1989.~~
~~3.~~2. Concrete Manufacturing including Redimix and CTB more than 5,000 but less than 25,000 cubic yards per year output.
~~4.~~3. Crematory and Pathological Waste Incinerators with less than 20 tons/yr. material input.
4. Natural gas and propane fired boilers (with or without #2 diesel oil back-up(a)) of 10 or more MMBTU but less than 30 MMBTU/hr heat input constructed after June 9, 1989.
5. Prepared feeds for animals and fowl and associated grain elevators more than 1,000 tons/yr. but less than 10,000 tons per year throughput.
6. Rock, Concrete or Asphalt Crushing both portable and stationary more than 5,000 tons/yr. but less than 25,000 tons/yr. crushed.
7. Surface coating operations whose actual or expected usage of coating materials is greater than 250 gallons per month, excluding sources that exclusively use non-VOC and non-HAP containing coatings (e.g. powder coating operations).

Part B Activities and Sources

The following commercial and industrial sources must obtain either:

a General ACDP, if one is available for the source classification and the source qualifies for a General ACDP under the procedures set forth in 340-216-0060;
a Simple ACDP under the procedures set forth in 340-216-0064; or
a Standard ACDP under the procedures set forth in 340-216-0066 if the source fits one of the criteria of Part C hereof.

1. Aerospace or Aerospace Parts Manufacturing
2. Aluminum Production - Primary
3. Ammonia Manufacturing
4. Animal Rendering and Animal Reduction Facilities
5. Asphalt Blowing Plants
6. Asphalt Felts or Coating
7. Asphaltic Concrete Paving Plants both stationary and portable
8. Bakeries, Commercial over 10 tons of VOC emissions per year
9. Battery Separator Manufacturing
10. Battery Manufacturing and Re-manufacturing

11. Beet Sugar Manufacturing
12. Boilers and other Fuel Burning Equipment over 10 MMBTU/hr. heat input, except exclusively Natural Gas and Propane fired units (with or without #2 diesel backup) under 30 MMBTU/hr. heat input
13. Building paper and Buildingboard Mills
14. Calcium Carbide Manufacturing
15. *** Can or Drum Coating
16. Cement Manufacturing
17. * Cereal Preparations and Associated Grain Elevators 10,000 or more tons/yr. throughput
18. Charcoal Manufacturing
19. Chlorine and Alkalies Manufacturing
20. Chrome Plating
21. Clay Ceramics Manufacturing subject to an Area Source NESHAP
~~21.~~22. Coffee Roasting (roasting 30 or more tons per year)
~~22.~~23. Concrete Manufacturing including Redimix and CTB 25,000 or more cubic yards per year output
~~23.~~24. Crematory and Pathological Waste Incinerators 20 or more tons/yr. material input
~~24.~~25. Degreasers (halogenated solvents subject to a NESHAP)
~~25.~~26. Electrical Power Generation from combustion (excluding units used exclusively as emergency generators)
~~26.~~27. Ethylene Oxide Sterilization
28. *** Flatwood Coating regulated by Division 232
~~27.~~29. *** Flexographic or Rotogravure Printing subject to RACT
~~28.~~30. * Flour, Blended and/or Prepared and Associated Grain Elevators 10,000 or more tons/yr. throughput
~~29.~~31. Galvanizing and Pipe Coating (except galvanizing operations that use less than 100 tons of zinc/yr.)
~~30.~~32. *** Gasoline Bulk Plants, ~~and~~ Bulk Terminals, and Pipeline Facilities ~~subject to OAR 232~~
33. ****Gasoline dispensing facilities
~~31.Gasoline Terminals~~
~~32.~~34. Glass and Glass Container Manufacturing
~~33.~~35. * Grain Elevators used for intermediate storage 10,000 or more tons/yr. throughput
~~34.~~36. Grain terminal elevators
~~35.~~37. Gray iron and steel foundries, malleable iron foundries, steel investment foundries, steel foundries 100 or more tons/yr. metal charged (not elsewhere identified)
~~36.~~38. Gypsum Products Manufacturing
39. Hardboard Manufacturing (including fiberboard)
~~37.~~40. *****Hospital sterilization operations subject to an Area Source NESHAP.
~~38.~~41. Incinerators with two or more ton per day capacity
~~39.~~42. Lime Manufacturing
~~40.~~43. *** Liquid Storage Tanks subject to OAR Division 232
~~41.~~44. Magnetic Tape Manufacturing
~~42.~~45. Manufactured and Mobile Home Manufacturing
~~43.~~46. Marine Vessel Petroleum Loading and Unloading
~~44.~~47. Millwork (including kitchen cabinets and structural wood members) 25,000 or more bd. ft./maximum 8 hr. input
~~45.~~48. Molded Container
~~46.~~49. Motor Coach Manufacturing
~~47.~~50. Natural Gas and Oil Production and Processing and associated fuel burning equipment

~~48.~~51. Nitric Acid Manufacturing
~~49.~~52. Non-Ferrous Metal Foundries 100 or more tons/yr. of metal charged
~~50.~~53. Organic or Inorganic Chemical Manufacturing and Distribution with ½ or more tons per year emissions of any one criteria pollutant (sources in this category with less than ½ ton/yr. of each criteria pollutant are not required to have an ACDP)
~~51.~~54. *** Paper or other Substrate Coating
~~52.~~55. Particleboard Manufacturing (including strandboard, flakeboard, and waferboard)
~~53.~~56. Perchloroethylene dry cleaners that do not submit a complete Dry Cleaner Annual Hazardous Waste and Air Compliance Report by June 1 of any given year
~~54.~~57. Pesticide Manufacturing 5,000 or more tons/yr. annual production
~~55.~~58. Petroleum Refining and Re-refining of Lubricating Oils and Greases including Asphalt Production by Distillation and the reprocessing of oils and/or solvents for fuels
~~56.~~59. Plywood Manufacturing and/or Veneer Drying
~~57.~~60. Prepared feeds for animals and fowl and associated grain elevators 10,000 or more tons per year throughput
~~58.~~61. Primary Smelting and/or Refining of Ferrous and Non-Ferrous Metals
~~59.~~62. Pulp, Paper and Paperboard Mills
~~60.~~63. Rock, Concrete or Asphalt Crushing both portable and stationary 25,000 or more tons/yr. crushed
~~61.~~64. Sawmills and/or Planing Mills 25,000 or more bd. ft./maximum 8 hr. finished product
65. Secondary Nonferrous Metals Processing subject to an Area Source NESHAP
~~62.~~66. Secondary Smelting and/or Refining of Ferrous and Non-Ferrous Metals
~~63.~~67. * Seed Cleaning and Associated Grain Elevators 5,000 or more tons/yr. throughput
~~64.~~68. Sewage Treatment Facilities employing internal combustion for digester gasses
~~65.~~69. Soil Remediation Facilities stationary or portable
~~66.~~70. Steel Works, Rolling and Finishing Mills
~~67.~~71. *** Surface Coating in Manufacturing subject to RACT
~~68.~~72. Surface Coating Operations with actual emissions of VOCs before add on controls of 10 or more tons/yr.
~~69.~~73. Synthetic Resin Manufacturing
~~70.~~74. Tire Manufacturing
~~71.~~75. Wood Furniture and Fixtures 25,000 or more bd. ft./maximum 8 hr. input
~~72.~~76. Wood Preserving (excluding waterborne)
~~73.~~77. All Other Sources not listed herein that the Department determines an air quality concern exists or one which would emit significant malodorous emissions
~~74.~~78. All Other Sources not listed herein which would have actual emissions, if the source were to operate uncontrolled, of 5 or more tons a year of PM10 if located in a PM10 non-attainment or maintenance area, or 10 or more tons of any single criteria pollutant in any part of the state

Part C: Activities and Sources

The following sources must obtain a Standard ACDP under the procedures set forth in 340-216-0066:

1. Incinerators for PCBs and / or other hazardous wastes
2. All Sources that the Department determines have emissions that constitute a nuisance
3. All Sources electing to maintain the source's baseline emission rate, or netting basis
4. All Sources subject to a RACT, BACT, LAER, NESHAP adopted in OAR 340-244-0220, NSPS, State MACT, or other significant Air Quality regulation(s), except:
    a. Source categories for which a General ACDP has been issued, and

b. Sources with less than 10 tons/yr. actual emissions that are subject to RACT, NSPS or a NESHAP adopted in OAR 340-244-0220 which qualify for a Simple ACDP

5. All Sources having the Potential to Emit more than 100 tons of any regulated air contaminant in a year
6. All Sources having the Potential to Emit more than 10 tons of a single hazardous air pollutant in a year
7. All Sources having the Potential to Emit more than 25 tons of all hazardous air pollutants combined in a year

Notes:

* Applies only to Special Control Areas
** Portland AQMA only
*** Portland AQMA, Medford-Ashland AQMA or Salem SKATS only
**** Gasoline dispensing facilities are not required to obtain an ACDP prior to January 1, 2010. Gasoline dispensing facilities with exclusively above ground tanks are required to obtain an ACDP only if they have monthly throughput of 10,000 gallons of gasoline per month or more or sell gasoline for use in motor vehicles.
***** Hospital sterilization operations are not required to obtain an ACDP prior to July 1, 2009
(a) "back-up" means less than 10,000 gallons of fuel per year

Table 2

Part 1. Initial Permitting Application Fees: (in addition to first annual fee)

a. Short Term Activity ACDP	$3,000.00
b. Basic ACDP	$120.00
c. Assignment to General ACDP	$1,200.00
d. Simple ACDP	$6,000.00
e. Construction ACDP	$9,600.00
f. Standard ACDP	$12,000.00
g. Standard ACDP (PSD/NSR)	$42,000.00

Part 2. Annual Fees: (Due 12/1 for 1/1 to 12/31 of the following year)

a. Short Term Activity ACDP		$NA
b. Basic ACDP		$360.00
c. General ACDP	(A) Fee Class One	$720.00
	(B) Fee Class Two	$1,296.00
	(C) Fee Class Three	$1,872.00
	(D) Fee Class Four	$360.00
	(E) Fee Class Five	$120.00
d. Simple ACDP	(A) Low Fee	$1,920.00
	(B) High Fee	$3,840.00
e. Standard ACDP		$7,680.00

Part 3. Specific Activity Fees:

a. Non-Technical Permit Modification (1)	$360.00
b. Non-PSD/NSR Basic Technical Permit Modification (2)	$360.00
c. Non-PSD/NSR Simple Technical Permit Modification(3)	$1,200.00
d. Non-PSD/NSR Moderate Technical Permit Modification (4)	$6,000.00
e. Non-PSD/NSR Complex Technical Permit Modification (5)	$12,000.00
f. PSD/NSR Modification	$42,000.00
g. Modeling Review (outside PSD/NSR)	$6,000.00
h. Public Hearing at Source's Request	$2,400.00
i. State MACT Determination	$6,000.00
j. Compliance Order Monitoring (6)	$120.00/month

Part 4. Late Fees:

a. 8-30 days late 5% of annual fee
b. 31-60 days late 10% of annual fee

c. 61 or more days late 20% of annual fee

1. Non-Technical modifications include, but are not limited to name changes, change of ownership and similar administrative changes.
2. Basic Technical Modifications include, but are not limited to corrections of emission factors in compliance methods, changing source test dates for extenuating circumstances, and similar changes.
3. Simple Technical Modifications include, but are not limited to, incorporating a PSEL compliance method from a review report into an ACDP, modifying a compliance method to use different emission factors or process parameter, changing source test dates for extenuating circumstances, changing reporting frequency, incorporating NSPS and NESHAP requirements that do not require judgment, and similar changes.
4. Moderate Technical Modifications include, but are not limited to incorporating a relatively simple new compliance method into a permit, adding a relatively simple compliance method or monitoring for an emission point or control device not previously addressed in a permit, revising monitoring and reporting requirements other than dates and frequency, adding a new applicable requirement into a permit due to a change in process or change in rules and that does not require judgment by the Department, incorporating NSPS and NESHAP requirements that do not require judgment, and similar changes.
5. Complex Technical Modifications include, but are not limited to incorporating a relatively complex new compliance method into a permit, adding a relatively complex compliance method or monitoring for an emission point or control devise not previously addressed in a permit, adding a relatively complex new applicable requirement into a permit due to a change in process or change in rules and that requires judgment by the Department, and similar changes.
6. This is a one time fee payable when a Compliance Order is established in a Permit or a Department Order containing a compliance schedule becomes a Final Order of the Department and is based on the number of months the Department will have to oversee the Order.

DEPARTMENT OF ENVIRONMENTAL QUALITY

DIVISION 200

GENERAL AIR POLLUTION PROCEDURES AND DEFINITIONS

340-200-0040
State of Oregon Clean Air Act Implementation Plan
(1) This implementation plan, consisting of Volumes 2 and 3 of the State of Oregon Air Quality Control Program, contains control strategies, rules and standards prepared by the Department of Environmental Quality and is adopted as the state implementation plan (SIP) of the State of Oregon pursuant to the federal **Clean Air Act, 42 U.S.C.A 7401** to **7671q**.
(2) Except as provided in section (3), revisions to the SIP will be made pursuant to the Commission's rulemaking procedures in division 11 of this chapter and any other requirements contained in the SIP and will be submitted to the United States Environmental Protection Agency for approval. The State Implementation Plan was last modified by the Commission on December 12, 2008~~August 21, 2008~~.
(3) Notwithstanding any other requirement contained in the SIP, the Department may:
(a) Submit to the Environmental Protection Agency any permit condition implementing a rule that is part of the federally-approved SIP as a source-specific SIP revision after the Department has complied with the public hearings provisions of 40 CFR 51.102 (July 1, 2002); and
(b) Approve the standards submitted by a regional authority if the regional authority adopts verbatim any standard that the Commission has adopted, and submit the standards to EPA for approval as a SIP revision.
NOTE: Revisions to the State of Oregon Clean Air Act Implementation Plan become federally enforceable upon approval by the United States Environmental Protection Agency. If any provision of the federally approved Implementation Plan conflicts with any provision adopted by the Commission, the Department shall enforce the more stringent provision.
Stat. Auth.: ORS 468.020
Stats. Implemented: ORS 468A.035
Hist.: DEQ 35, f. 2-3-72, ef. 2-15-72; DEQ 54, f. 6-21-73, ef. 7-1-73; DEQ 19-1979, f. & ef. 6-25-79; DEQ 21-1979, f. & ef. 7-2-79; DEQ 22-1980, f. & ef. 9-26-80; DEQ 11-1981, f. & ef. 3-26-81; DEQ 14-1982, f. & ef. 7-21-82; DEQ 21-1982, f. & ef. 10-27-82; DEQ 1-1983, f. & ef. 1-21-83; DEQ 6-1983, f. & ef. 4-18-83; DEQ 18-1984, f. & ef. 10-16-84; DEQ 25-1984, f. & ef. 11-27-84; DEQ 3-1985, f. & ef. 2-1-85; DEQ 12-1985, f. & ef. 9-30-85; DEQ 5-1986, f. & ef. 2-21-86; DEQ 10-1986, f. & ef. 5-9-86; DEQ 20-1986, f. & ef. 11-7-86; DEQ 21-1986, f. & ef. 11-7-86; DEQ 4-1987, f. & ef. 3-2-87; DEQ 5-1987, f. & ef. 3-2-87; DEQ 8-1987, f. & ef. 4-23-87; DEQ 21-1987, f. & ef. 12-16-87; DEQ 31-1988, f. 12-20-88, cert. ef. 12-23-88; DEQ 2-1991, f. & cert. ef. 2-14-91; DEQ 19-1991, f. & cert. ef. 11-13-91; DEQ 20-1991, f. & cert. ef. 11-13-91; DEQ 21-1991, f. & cert. ef. 11-13-91; DEQ 22-1991, f. & cert. ef. 11-13-91; DEQ 23-1991, f. & cert. ef. 11-13-91; DEQ 24-1991, f. & cert. ef. 11-13-91; DEQ 25-1991, f. & cert. ef. 11-13-91; DEQ 1-1992, f. & cert. ef. 2-4-92; DEQ 3-1992, f. & cert. ef. 2-4-92; DEQ 7-1992, f. & cert. ef. 3-30-92; DEQ 19-1992, f. & cert. ef. 8-11-92; DEQ 20-1992, f. & cert. ef. 8-11-92; DEQ 25-1992, f. 10-30-92, cert. ef. 11-1-92; DEQ 26-1992, f. & cert. ef. 11-2-92; DEQ 27-1992, f. & cert. ef. 11-12-92; DEQ 4-1993, f. & cert. ef. 3-10-93; DEQ 8-1993, f. & cert. ef. 5-11-93; DEQ 12-1993, f. & cert. ef. 9-24-93; DEQ 15-1993, f. & cert. ef. 11-4-93; DEQ 16-1993, f. & cert. ef. 11-4-93; DEQ 17-1993, f. & cert. ef. 11-4-93; DEQ 19-1993, f. & cert. ef. 11-4-93; DEQ 1-1994, f. & cert. ef. 1-

3-94; DEQ 5-1994, f. & cert. ef. 3-21-94; DEQ 14-1994, f. & cert. ef. 5-31-94; DEQ 15-1994, f. 6-8-94, cert. ef. 7-1-94; DEQ 25-1994, f. & cert. ef. 11-2-94; DEQ 9-1995, f. & cert. ef. 5-1-95; DEQ 10-1995, f. & cert. ef. 5-1-95; DEQ 14-1995, f. & cert. ef. 5-25-95; DEQ 17-1995, f. & cert. ef. 7-12-95; DEQ 19-1995, f. & cert. ef. 9-1-95; DEQ 20-1995 (Temp), f. & cert. ef. 9-14-95; DEQ 8-1996(Temp), f. & cert. ef. 6-3-96; DEQ 15-1996, f. & cert. ef. 8-14-96; DEQ 19-1996, f. & cert. ef. 9-24-96; DEQ 22-1996, f. & cert. ef. 10-22-96; DEQ 23-1996, f. & cert. ef. 11-4-96; DEQ 24-1996, f. & cert. ef. 11-26-96; DEQ 10-1998, f. & cert. ef. 6-22-98; DEQ 15-1998, f. & cert. ef. 9-23-98; DEQ 16-1998, f. & cert. ef. 9-23-98; DEQ 17-1998, f. & cert. ef. 9-23-98; DEQ 20-1998, f. & cert. ef. 10-12-98; DEQ 21-1998, f. & cert. ef. 10-12-98; DEQ 1-1999, f. & cert. ef. 1-25-99; DEQ 5-1999, f. & cert. ef. 3-25-99; DEQ 6-1999, f. & cert. ef. 5-21-99; DEQ 10-1999, f. & cert. ef. 7-1-99; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-020-0047; DEQ 15-1999, f. & cert. ef. 10-22-99; DEQ 2-2000, f. 2-17-00, cert. ef. 6-Ä1-01; DEQ 6-2000, f. & cert. ef. 5-22-00; DEQ 8-2000, f. & cert. ef. 6-6-00; DEQ 13-2000, f. & cert. ef. 7-28-00; DEQ 16-2000, f. & cert. ef. 10-25-00; DEQ 17-2000, f. & cert. ef. 10-25-00; DEQ 20-2000 f. & cert. ef. 12-15-00; DEQ 21-2000, f. & cert. ef. 12-15-00; DEQ 2-2001, f. & cert. ef. 2-5-01; DEQ 4-2001, f. & cert. ef. 3-27-01; DEQ 6-2001, f. 6-18-01, cert. ef. 7-1-01; DEQ 15-2001, f. & cert. ef. 12-26-01; DEQ 16-2001, f. & cert. ef. 12-26-01; DEQ 17-2001, f. & cert. ef. 12-28-01; DEQ 4-2002, f. & cert. ef. 3-14-02; DEQ 5-2002, f. & cert. ef. 5-3-02; DEQ 11-2002, f. & cert. ef. 10-8-02; DEQ 5-2003, f. & cert. ef. 2-6-03; DEQ 14-2003, f. & cert. ef. 10-24-03; DEQ 19-2003, f. & cert. ef. 12-12-03; DEQ 1-2004, f. & cert. ef. 4-14-04; DEQ 10-2004, f. & cert. ef. 12-15-04; DEQ 1-2005, f. & cert. ef. 1-4-05; DEQ 2-2005, f. & cert. ef. 2-10-05; DEQ 4-2005, f. 5-13-05, cert. ef. 6-1-05; DEQ 7-2005, f. & cert. ef. 7-12-05; DEQ 9-2005, f. & cert. ef. 9-9-05; DEQ 2-2006, f. & cert. ef. 3-14-06; DEQ 4-2006, f. 3-29-06, cert. ef. 3-31-06; DEQ 3-2007, f. & cert. ef. 4-12-07; DEQ 4-2007, f. & cert. ef. 6-28-07; DEQ 8-2007, f. & cert. ef. 11-8-07; DEQ 5-2008, f. & cert. ef. 3-20-08; DEQ 11-2008, f. & cert. ef. 8-29-08

DIVISION 232

EMISSION STANDARDS FOR VOC POINT SOURCES

~~**340-232-0070**~~
~~**Gasoline Dispensing Facilities**~~
~~(1) No person may transfer or cause or allow the transfer of gasoline from any delivery vessel which was filled at a Bulk Gasoline Terminal into any gasoline dispensing facility tank of less than 40,000 gallon capacity unless:~~
~~(a) The tank is filled by submerged fill;~~
~~(b) A vapor balance system is used which consists of a certified gasoline storage tank device capable of collecting the vapor from volatile organic liquids and gases so as to prevent their emission to the outdoor atmosphere. All tank gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place;~~
~~(c) The vapors are processed by a system demonstrated to the satisfaction of the Department to be of equal effectiveness; and~~
~~(d) All equipment associated with the vapor balance system shall be maintained to be vapor tight and in good working order. No gasoline delivery shall take place unless the vapor return hose is connected by the delivery truck operator, if required by subsection (b) of this section.~~
~~(2) Exemptions and Limitations:~~

~~(a) All existing storage tanks at gasoline dispensing facilities with a rated capacity of 1,500 gallons or less are exempt from the submerged fill and vapor balance system requirements in section (1) of this rule;~~

~~(b) All new gasoline storage tanks with a rated capacity of 1500 gallons or less are exempt from the vapor balance system requirement in subsection (1)(b) of this rule;~~

~~(c) All new gasoline storage tanks of any capacity, installed after the effective date of this rule, shall have a submerged fill-tube system;~~

~~(d) Transfers made to storage tanks of gasoline dispensing facilities equipped with floating roofs or their equivalent shall be exempt from subsections (1)(a) and (1)(b) of this rule.~~

~~(3) Compliance with subsection (1)(b) of this rule shall be determined by verifications of use of equipment identical to equipment most recently approved and listed for such use by the Department or by testing in accordance with Method 30 on file with the Department.~~

~~(4) All persons subject to OAR 340-232-0010 and this rule shall obtain and maintain a current vapor balance system permit from the Department:~~

~~(a) All persons applying for this permit for any time period beginning after December 31, 1999 shall be subject to a biennial fee of $100;~~

~~(b) The Department may issue vapor balance permits for up to 10 years;~~

~~(c) Persons applying for a new permit with an effective date beginning before December 31, 1999 or in an odd numbered year shall pay the annual fee of $50 and then will be billed for the biennial fee for the next biennial period;~~

~~(d) Fees shall be paid at the time of application and by December 1 in odd numbered years for the next biennial period.~~

~~(5) When a facility changes ownership, the new owner shall obtain a new vapor balance system permit, as described in section (4) of this rule above, within 60 days of the change of ownership.~~

~~(6) No person shall cause or allow the installation of non-certified gasoline storage tank device equipment at any gasoline dispensing facility where a vapor balance system is required.~~

~~(7) Persons subject to this rule shall apply for a renewal vapor balance system permit not less than 60 days prior to the expiration date of the existing permit. The biennial fee shall be included with the application for renewal.~~

~~[**NOTE:** This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-200-0040.]~~

~~Stat. Auth.: ORS 468.020 & ORS 468A.025~~

~~Stats. Implemented: ORS 468A.025~~

~~Hist.: DEQ 21-1978, f. & ef. 12-28-78; DEQ 17-1979, f. & ef. 6-22-79; DEQ 23-1980, f. & ef. 9-26-80; DEQ 12-1981(Temp), f. & ef. 4-29-81; DEQ 16-1983, f. & ef. 10-19-83; DEQ 3-1986, f. & ef. 2-12-86; DEQ 8-1991, f. & cert. ef. 5-16-91; DEQ 4-1993, f. & cert. ef. 3-10-93; DEQ 25-1994, f. & cert. ef. 11-22-94; DEQ 20-1998, f. & cert. ef. 10-12-98; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-022-0110~~

DIVISION 242

RULES APPLICABLE TO THE PORTLAND AREA

Gasoline Vapors from Gasoline Transfer and Dispensing Operations

340-242-0520
General Provisions

~~(1) Not withstanding the requirements of OAR 340-232-0070, no person shall transfer or allow the transfer of gasoline into storage tanks, at gasoline-dispensing facilities located in Clackamas, Multnomah or Washington Counties, whose annual throughput exceeds 120,000 gallons, unless the storage tank is equipped with:~~

~~(a) A stage I vapor collection system consisting of a vapor-tight return line from the storage tank, or its vent, to the gasoline transport vehicle;~~

~~(b) A properly installed on-site vapor control system connected to a vapor collection system; or~~

~~(c) An equivalent control system.~~

~~(2) A stage II vapor collection system is not required at gasoline-dispensing facilities that are not subject to the stage I requirements of this section.~~

(1~~3~~) No owner and/or operator of a gasoline-dispensing facility~~ies~~ shall transfer or allow the transfer of gasoline into a motor vehicle fuel tank at gasoline-dispensing facilities located in Clackamas, Multnomah or Washington Counties whose annual throughput exceeds 600,000 gallons, unless the gasoline-dispensing facility is equipped with a stage II vapor collection system which must be approved by the Department before it is installed.

[**NOTES**:

-1- Underground piping requirements are described in OAR 340-150-0001 through 340-150-0003 and **40 CFR 280.20(d)**. Systems installed according to American Petroleum Institute Publication 1615, "Installation of Underground Petroleum Storage System" or Petroleum Equipment Institute Publication RP100, "Recommended Practices for Installation of Underground Liquid Storage Systems" or American National Standards Institute Standard B31.4 "Liquid Petroleum Transportation Piping System" are considered approved systems.

-2- Above-ground stage II equipment requirements are based on systems recently approved in other states with established stage II program. See the Oregon Department of Environmental Quality, Air Quality Division, for the list of approved equipment. Any other proposed equivalent systems must be submitted to the Department of Environmental Quality, Air Quality Division, for approval before installation.]

(2~~4~~) Owners and/or operators of ~~gasoline storage tanks, gasoline transport vehicles and~~ gasoline-dispensing facilities subject to ~~stage I or~~ stage II vapor collection requirements must:

(a) Install all necessary ~~stage I and~~ stage II vapor collection and control systems, and make any modifications necessary to comply with the requirements;

(b) Provide adequate training and written instructions to the operator of the affected gasoline-dispensing facility and the gasoline transport vehicle;

(c) Replace, repair or modify any worn or ineffective component or design element to ensure the vapor-tight integrity and efficiency of the ~~stage I and~~ stage II vapor collection systems; and

(d) Connect and ensure proper operation of the ~~stage I and~~ stage II vapor collection systems whenever gasoline is being loaded, unloaded or dispensed.

(3~~5~~) Approval of a ~~stage I or~~ stage II vapor collection system by the Department does not relieve the owner and/or operator of the responsibility to comply with other applicable codes and regulations pertaining to fire prevention, weights and measures and safety matters.

(4~~6~~) Regarding installation and testing of piping for ~~stage I and~~ stage II vapor collection systems:

(a) Piping shall be installed in accordance with standards in OAR 340 Division 150;

(b) Piping shall be installed by a licensed installation service provider pursuant to OAR 340 Division 160; and
(c) Piping shall be tested prior to being placed into operation by an installation or tank tightness testing service provider licensed pursuant to OAR 340 Division 160.
~~(7) Owners and/or operators of gasoline-dispensing facilities subject to stage II vapor collection requirements must obtain and maintain a current stage II vapor collection permit from the Department. This permit shall be displayed or kept on file at the facility:~~
~~(a) Persons applying for this permit for any time period beginning after December 31, 1999 shall be subject to a biennial fee of $200;~~
~~(b) The Department may issue stage II vapor collection permits for up to 10 years;~~
~~(c) Persons applying for a new permit with an effective date beginning before December 31, 1999 or in an odd numbered year shall pay the annual fee of $100 and then will be billed for the biennial fee for the next biennial period;~~
~~(d) Fees shall be paid at the time of application and by December 1 in odd numbered years for the next biennial period.~~
~~(8) When a facility changes ownership, the new owner shall obtain a new stage II vapor collection permit, as described in section (7) of this rule above, within 60 days of the change of ownership.~~
~~(9) Persons subject to this rule shall apply for a renewal stage II vapor collection permit not less than 60 days prior to the expiration date of the existing permit. The biennial fee shall be included with the application for renewal.~~
[**NOTE:** Test methods are based on methods used in other states with established stage II programs. See the Oregon Department of Environmental Quality, Air Quality Division, for copies of the approved test methods.]
[**NOTE:** This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-200-0040.]
[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]
Stat. Auth.: ORS 468.020 & ORS 468A.025
Stats. Implemented: ORS 468A.025
Hist.: DEQ 7-1991, f. & cert. ef. 5-7-91 (and corrected 6-7-91); DEQ 4-1993, f. & cert. ef. 3-10-93; DEQ 25-1994, f. & cert. ef. 11-22-94; DEQ 16-1996, f. & cert. ef. 8-14-96; DEQ 20-1998, f. & cert. ef. 10-12-98; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-022-0402

DIVISION 244

OREGON FEDERAL HAZARDOUS AIR POLLUTANT PROGRAM

Emission Standards for Gasoline Dispensing Facilities

340-244-0232
Purpose
This rule establishes emission limitations and management practices for hazardous air pollutants (HAP) and volatile organic compounds (VOC) emitted from the loading of gasoline storage tanks and dispensing of fuel at gasoline dispensing facilities (GDF). This rule also establishes requirements to demonstrate compliance with the emission limitations and management practices.

[**NOTE:** This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-200-0040.]

340-244-0234
Affected Sources
(1) The affected source to which the emission standards apply is each GDF. The affected source includes each gasoline cargo tank during the delivery of product to a GDF and also includes each storage tank.
(2) The emissions standards in OAR 340-244-0236 through 0252 do not apply to agricultural operations as defined in ORS 468A.020. Agricultural operations are however required to comply with the Gasoline Dispensing NESHAP, if applicable (40 CFR part 63 subpart CCCCCC).
(3) All GDFs must comply with the requirements of OAR 340-244-0240.
(4) The owner or operator of a GDF must comply with the requirements of OAR 340-244-0242 for the following gasoline storage tanks:
(a) All tanks with a capacity of 250 gallons or more located at GDFs:
(A) Whose annual throughput exceeds 480,000 gallons of gasoline or more;
(B) Whose average monthly throughput exceeds 100,000 gallons of gasoline or more; or
(C) In Clackamas, Multnomah, or Washington County whose annual throughput exceeds 120,000 gallons of gasoline or more.
(b) All tanks with a capacity of 1,500 gallons or more located at GDFs in the Portland AQMA, Medford AQMA, or Salem SATS.
(5) The owner or operator of a GDF must comply with the requirements of OAR 340-244-0242(4) for any gasoline storage tank equipped with a vapor balance system.
(6) An affected source must, upon request by the Department, demonstrate their annual or average monthly throughput.
(7) The owner or operator of an affected source, as defined in section (1) of this rule, is not required to obtain a Title V Operating Permit. However, the owner or operator must still apply for and obtain a Title V Operating Permit if meeting one or more of the applicability criteria found in OAR 340-218-0020.
(8) The loading of aviation gasoline storage tanks at airports is not subject to this rule and the aviation gasoline is not included in the gasoline throughput specified in sections (2) through (5) of this rule.
[**NOTE:** This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-200-0040.]

340-244-0236
Affected Equipment or Processes
(1) The emission sources to which this rule applies are gasoline storage tanks and associated equipment components in vapor or liquid gasoline service at new, reconstructed, or existing GDF that meet the criteria specified in OAR 340-244-0234. Pressure/Vacuum vents on gasoline storage tanks and the equipment necessary to unload product from cargo tanks into the storage tanks at GDF are covered emission sources. The equipment used for the refueling of motor vehicles is not covered by this rule.
(2) An affected source is a new affected source if construction commenced on the affected source after November 9, 2006, and the applicability criteria in OAR 340-244-0234 are met at the time operation commenced.
(3) An affected source is reconstructed if meeting the criteria for reconstruction as defined in 40 CFR 63.2.

(4) An affected source is an existing affected source if it is not new or reconstructed.
[**NOTE:** This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-200-0040.]

340-244-0238
Compliance Dates
(1) For a new or reconstructed affected source, the owner or operator must comply with the standards in OAR 340-244-0240 and 0242, as applicable, no later than January 10, 2008 or upon startup, whichever is later, except as follows:
(a) The owner or operator of a new or reconstructed GDF must comply with OAR 340-244-0240(1)(b) and (c) no later than July 1, 2009 or upon startup, whichever is later.
(b) For tanks located at a GDF with average monthly throughput less than 100,000 gallons of gasoline and not listed in OAR 340-244-0234(4)(a)(C) or (4)(b) must comply with OAR 340-244-0242, as applicable, no later than December 13, 2009 or upon startup, whichever is later.
(c) The owner or operator of a GDF subject to Table 4 of this division must comply no later than September 23, 2008 or upon startup, whichever is later.
(2) For an existing affected source, the owner or operator must comply with the standards in OAR 340-244-0240 and 0242, as applicable, by no later than January 10, 2011, except as follows:
(a) For tanks with a capacity between 1,500 and 40,000 gallons and located in the Portland AQMA, Medford AQMA, or Salem SATS, the owner or operator must comply with the standards in OAR 340-244-0240(2) and 0242 no later than December 13, 2008.
(b) For tanks located at an affected source located in Clackamas, Multnomah, or Washington County, whose annual throughput exceeds 120,000 gallons, the owner or operator must comply with the standards in OAR 340-244-0240(2) and 0242 no later than December 13, 2008.
(c) The owner or operator of an existing GDF must comply with OAR 340-244-0240(1)(b) and (c) no later than July 1, 2009 or upon startup, whichever is later.
(3) For an existing affected source that becomes subject to the control requirements in this rule because of an increase in the average monthly throughput, as specified in OAR 340-244-0234(4), the owner or operator must comply with the standards in this rule no later than January 10, 2011 or within 2 years after the affected source becomes subject to the control requirements in this rule, whichever is later.
[**NOTE:** This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-200-0040.]

340-244-0240
Work Practice and Submerged Fill Requirements
(1) The owner or operator of a GDF must not allow gasoline to be handled in a manner that would result in vapor releases to the atmosphere for extended periods of time. Measures to be taken include, but are not limited to, the following:
(a) Minimize gasoline spills;
(b) Do not top off or overfill vehicle tanks;
(c) Post a sign at the GDF instructing attendants not to top off vehicle tanks;
(d) Clean up spills as expeditiously as practicable;
(e) Cover all open gasoline containers and all gasoline storage tank fill-pipes with a gasketed seal when not in use;

(f) Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators.

(g) Ensure that cargo tanks unloading at the GDF comply with subsections (1)(a) through (e) of this rule.

(2) Any cargo tank unloading at a GDF equipped with a functional vapor balance system must connect to the vapor balance system whenever gasoline is being loaded.

(3) The owner or operator must only load gasoline into storage tanks at the facility by utilizing submerged filling, as defined in OAR 340-244-0030, and as specified in subsection (2)(a) or (2)(b) of this rule.

(a) Submerged fill pipes installed on or before November 9, 2006, must be no more than 12 inches from the bottom of the storage tank.

(b) Submerged fill pipes installed after November 9, 2006, must be no more than 6 inches from the bottom of the storage tank.

(4) Gasoline storage tanks with a capacity of less than 250 gallons are not required to comply with the submerged fill requirements in section (2) of this rule.

(5) The owner or operator must submit the applicable notifications as required under OAR 340-244-0246.

(6) The owner or operator must have records available within 24 hours of a request by the Department to document gasoline throughput.

(7) The owner or operator must comply with the requirements of this rule by the applicable dates specified in OAR 340-244-0238.

[**NOTE:** This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-200-0040.]

340-244-0242

Vapor Balance Requirements

(1) Except as provided in section (2) of this rule, the owner or operator of gasoline storage tank listed in OAR 340-244-0234(4), must meet the requirements in either subsection (1)(a) or (1)(b) of this rule.

(a) Each management practice in Table 4 of this division that applies to the GDF.

(b) If, prior to January 10, 2008, the owner or operator operates a vapor balance system at the GDF that meets the requirements of either paragraph (2)(b)(A) or (2)(b)(B) of this rule, the owner or operator will be deemed in compliance with this section.

(A) Achieves emissions reduction of at least 90 percent.

(B) Operates using management practices at least as stringent as those in Table 4 of this division.

(2) Gasoline storage tanks equipped with floating roofs or the equivalent are not required to comply with the control requirements in section (1) of this rule.

(3) Cargo tanks unloading at a GDF must comply with the requirements of OAR 340-244-0240(1) and management practices in Table 5 of this division.

(4) The owner or operator of a GDF subject to section (1) of this rule or having a gasoline storage tank equipped with a vapor balance system, must comply with the following requirements on and after the applicable compliance date in OAR 340-244-0238:

(a) When loading a gasoline storage tank equipped with a vapor balance system, connect and ensure the proper operation of the vapor balance system whenever gasoline is being loaded.

(b) Maintain all equipment associated with the vapor balance system to be vapor tight and in good working order.

(c) In order to ensure that the vapor balance equipment is maintained to be vapor tight and in good working order, have the vapor balance equipment inspected on an annual basis to discover potential or actual equipment failures.
(d) Replace, repair or modify any worn or ineffective component or design element within 24 hours to ensure the vapor-tight integrity and efficiency of the vapor balance system. If repair parts must be ordered, either a written or verbal order for those parts must be initiated within 2 working days of detecting such a leak. Such repair parts must be installed within 5 working days after receipt.
(5) The owner or operator of a GDF subject to section (1) of this rule must also comply with the following requirements:
(a) The applicable testing requirements contained in OAR 340-244-0244.
(b) The applicable notification requirements under OAR 340-244-0246.
(c) The applicable recordkeeping and reporting requirements as specified in OAR 340-244-0248 and 0250.
(d) The owner or operator must have records available within 24 hours of a request by the Department to document gasoline throughput.
[**NOTE:** This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-200-0040.]

Testing and Monitoring Requirements

340-244-0244
Testing and Monitoring Requirements
(1) If required to install a vapor balance system under OAR 340-244-0242, the owner or operator must comply with the requirements in subsections (1)(a) and (b) of this rule at the time of installation of a vapor balance system or a new gasoline storage tank. Each owner or operator of a GDF with monthly throughput of 100,000 gallons of gasoline or more must comply the requirements in subsections (1)(a) and (b) of this rule every 3 years following the time of installation of a vapor balance system or a new gasoline storage tank.
(a) The owner or operator must demonstrate compliance with the leak rate and cracking pressure requirements, specified in item 1(g) of Table 4 of this division, for pressure-vacuum vent valves installed on gasoline storage tanks using the test methods identified in paragraph (1)(a)(A) or (B) of this rule.
(A) California Air Resources Board Vapor Recovery Test Procedure TP–201.1E,—Leak Rate and Cracking Pressure of Pressure/Vacuum Vent Valves, adopted October 8, 2003 (incorporated by reference, see **40 CFR 63.14**).
(B) Use alternative test methods and procedures in accordance with the alternative test method requirements in **40 CFR 63.7(f)**.
(b) The owner or operator must demonstrate compliance with the static pressure performance requirement, specified in item 1(h) of Table 4 of this division, for the vapor balance system by conducting a static pressure test on the gasoline storage tanks using the test methods identified in paragraph (1)(b)(A) or (B) of this rule.
(A) California Air Resources Board Vapor Recovery Test Procedure TP–201.3,—Determination of 2-Inch WC Static Pressure Performance of Vapor Recovery Systems of Dispensing Facilities, adopted April 12, 1996, and amended March 17, 1999 (incorporated by reference, see **40 CFR 63.14**).

(B) Use alternative test methods and procedures in accordance with the alternative test method requirements in **40 CFR 63.7(f)**.

(2) Each owner or operator of a GDF, choosing, under the provisions of **40 CFR 63.6(g)**, to use a vapor balance system other than that described in Table 4 of this division, must demonstrate to the Department the equivalency of their vapor balance system to that described in Table 4 of this division using the procedures specified in subsections (2)(a) through (c) of this rule.

(a) The owner or operator must demonstrate initial compliance by conducting an initial performance test on the vapor balance system to demonstrate that the vapor balance system achieves 95 percent reduction using the California Air Resources Board Vapor Recovery Test Procedure TP–201.1,—Volumetric Efficiency for Phase I Vapor Recovery Systems, adopted April 12, 1996, and amended February 1, 2001, and October 8, 2003, (incorporated by reference, see **40 CFR 63.14**).

(b) The owner or operator must, during the initial performance test required under subsection (2)(a) of this rule, determine and document alternative acceptable values for the leak rate and cracking pressure requirements specified in item 1(g) of Table 4 of this division and for the static pressure performance requirement in item 1(h) of Table 4 of this division.

(c) The owner or operator must comply with the testing requirements specified in section (1) of this rule.

[**NOTE:** This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-200-0040.]

Notifications, Records, and Reports

340-244-0246
Notifications

(1) Each owner or operator subject to the control requirements in OAR 340-244-0240(2) must comply with subsections (1)(a) through (c) of this rule.

(a) The owner or operator must submit an Initial Notification that the owner or operator is subject to the Gasoline Dispensing Facilities NESHAP by May 9, 2008, or at the time the owner or operator becomes subject to the control requirements in OAR 340-244-0240(2), unless the owner or operator meets the requirements in subsection (1)(c) of this rule. The Initial Notification must contain the information specified in paragraphs (1)(a)(A) through (C) of this rule. The notification must be submitted to EPA's Region 10 Office and the Department as specified in **40 CFR 63.13**.

(A) The name and address of the owner and the operator.

(B) The address (i.e., physical location) of the GDF.

(C) A statement that the notification is being submitted in response to the Gasoline Dispensing Facilities NESHAP and identifying the requirements in OAR 340-244-0240(1) through (3) that apply to the owner or operator.

(b) The owner or operator must submit a Notification of Compliance Status to EPA's Region 10 Office and the Department, as specified in **40 CFR 63.13**, by the compliance date specified in OAR 340-244-0238 unless the owner or operator meets the requirements in subsection (1)(c) of this rule. The Notification of Compliance Status must be signed by a responsible official who must certify its accuracy and must indicate whether the source has complied with the requirements of OAR 340-244-0232 through 0252. If the facility is in compliance with the requirements of OAR 340-244-0232 through 0252 at the time the Initial Notification required under subsection (1)(a) of this rule is due, the Notification of Compliance Status may be submitted in lieu of the Initial Notification provided it contains the information required under subsection (1)(a) of this rule.

(c) If, prior to January 10, 2008, the owner or operator is operating in compliance with an enforceable State rule or permit that requires submerged fill as specified in OAR 340-244-0240(2), the owner or operator is not required to submit an Initial Notification or a Notification of Compliance Status under subsection (1)(a) or (b) of this rule.
(2) Each owner or operator subject to the control requirements in OAR 340-244-0242 must comply with subsections (2)(a) through (e) of this rule.
(a) The owner or operator must submit an Initial Notification that the owner or operator is subject to the Gasoline Dispensing Facilities NESHAP by May 9, 2008, or at the time the owner or operator becomes subject to the control requirements in OAR 340-244-0242. The Initial Notification must contain the information specified in paragraphs (2)(a)(A) through (C) of this rule. The notification must be submitted to EPA's Region 10 Office and the Department as specified in **40 CFR 63.13**.
(A) The name and address of the owner and the operator.
(B) The address (i.e., physical location) of the GDF.
(C) A statement that the notification is being submitted in response to the Gasoline Dispensing Facilities NESHAP and identifying the requirements in OAR 340-244-0242 that apply to the owner or operator.
(b) The owner or operator must submit a Notification of Compliance Status to EPA's Regional 10 Office and the Department, as specified in **40 CFR 63.13**, by the compliance date specified in OAR 340-244-0238. The Notification of Compliance Status must be signed by a responsible official who must certify its accuracy and must indicate whether the source has complied with the requirements of OAR 340-244-0232 through 0252. If the facility is in compliance with the requirements OAR 340-244-0232 through 0252 at the time the Initial Notification required under subsection (2)(a) of this rule is due, the Notification of Compliance Status may be submitted in lieu of the Initial Notification provided it contains the information required under subsection (2)(a) of this rule.
(c) If, prior to January 10, 2008, the owner or operator satisfies the requirements in both paragraphs (2)(c)(A) and (B) of this rule, the owner or operator is not required to submit an Initial Notification or a Notification of Compliance Status if the owner or operator operates a vapor balance system at the gasoline dispensing facility that meets the requirements of either paragraphs (2)(c)(A) or (B) of this rule.
(A) Achieves emissions reduction of at least 90 percent.
(B) Operates using management practices at least as stringent as those in Table 4 of this division.
(d) The owner or operator must submit a Notification of Performance Test, as specified in **40 CFR 63.9(e)**, prior to initiating testing required by OAR 340-244-0244(1) and (2).
(e) The owner or operator must submit additional notifications specified in **40 CFR 63.9**, as applicable.
[**NOTE:** This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-200-0040.]

340-244-0248
Recordkeeping requirements
(1) Each owner or operator must keep the following records:
(a) Records of all tests performed under OAR 340-244-0244(1) and (2);
(b) Records related to the operation and maintenance of vapor balance equipment required under OAR 340-244-0242. Any vapor balance component defect must be logged and tracked by station personnel using forms provided by the Department or a reasonable facsimile.
(c) Records of total throughput volume of gasoline, in gallons, for each calendar month.
(d) Records of permanent changes made at the GDF and vapor balance equipment which may affect emissions.

(2) Records required under section (1) of this rule must be kept for a period of 5 years and must be made available for inspection by the Department during the course of a site visit.
[**NOTE:** This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-200-0040.]

340-244-0250
Reporting requirements
(1) Each owner or operator subject to the management practices in OAR 340-244-0242 must report to the Department the results of all volumetric efficiency tests required under OAR 340-244-0244(1) and (2). Reports submitted under this rule must be submitted within 30 days of the completion of the performance testing.
[**NOTE:** This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-200-0040.]

340-244-0252
General Provision applicability
Table 3 to **40 CFR part 63 subpart CCCCCC** shows which parts of the General Provisions apply to the owner or operator.

TABLE 4 (OAR 340-244-0242)

MANAGEMENT PRACTICES FOR GASOLINE DISPENSING FACILITIES SUBJECT TO STAGE I VAPOR CONTROLS

If owning or operating	The owner or operator must
1. An existing GDF	The permittee must install and operate a vapor balance system on gasoline storage tanks that meets the design criteria in paragraphs (a) through (h). (a) All vapor connections and lines on the storage tank must be equipped with closures that seal upon disconnect. (b) The vapor line from the gasoline storage tank to the gasoline cargo tank must be vapor-tight, as defined in OAR 340-244-0030. (c) The vapor balance system must be designed such that the pressure in the tank truck does not exceed 18 inches water pressure or 5.9 inches water vacuum during product transfer. (d) The vapor recovery and product adaptors, and the method of connection with the delivery elbow, must be designed so as to prevent the over-tightening or loosening of fittings during normal delivery operations. (e) If a gauge well separate from the fill tube is used, it must be provided with a submerged drop tube that extends the same distance from the bottom of the storage tank as specified in OAR 340-244-0240(2). (f) Liquid fill connections for all systems must be equipped with vapor-tight caps. (g) Pressure/vacuum (PV) vent valves must be installed on the storage tank vent pipes. The pressure specifications for PV vent valves must be: a positive pressure setting of 2.5 to 6.0 inches of water and a negative pressure setting of 6.0 to 10.0 inches of water. The total leak rate of all PV vent valves at an affected facility, including connections, must not exceed 0.17 cubic foot per hour at a pressure of 2.0 inches of water and 0.63 cubic foot per hour at a vacuum of 4 inches of water. (h) The vapor balance system must be capable of meeting the static pressure performance requirement of the following equation: $Pf = 2e^{-500.887/v}$ Where: Pf = Minimum allowable final pressure, inches of water. v = Total ullage affected by the test, gallons. e = Dimensionless constant equal to approximately 2.718. 2 = The initial pressure, inches water.
2. For a new or reconstructed GDF with monthly	The permittee must install and operate a dual-point

throughput of 100,000 gallons of gasoline or more, or a new storage tank(s) at an existing GDF with monthly throughput of 100,000 gallons of gasoline or more	vapor balance system, as defined in OAR 340-244-0030, on each affected gasoline storage tank and comply with the design criteria in item 1 of this Table.

TABLE 5 (OAR 340-244-0242)

MANAGEMENT PRACTICES FOR GASOLINE CARGO TANKS UNLOADING AT GASOLINE DISPENSING FACILITIES EQUIPPED WITH STAGE I VAPOR CONTROLS

If owning or operating	The owner or operator must
A gasoline cargo tank	Not unload gasoline into a storage tank at a GDF with stage I vapor controls unless the following conditions are met: (i) All hoses in the vapor balance system are properly connected, (ii) The adapters or couplers that attach to the vapor line on the storage tank have closures that seal upon disconnect, (iii) All vapor return hoses, couplers, and adapters used in the gasoline delivery are vapor-tight, (iv) All tank truck vapor return equipment is compatible in size and forms a vapor-tight connection with the vapor balance equipment on the GDF storage tank, and (v) All hatches on the tank truck are closed and securely fastened. (vi) The filling of storage tanks at GDF must be limited to unloading by vapor-tight gasoline cargo tanks. Documentation that the cargo tank has met the specifications of EPA Method 27 must be carried on the cargo tank.

DEPARTMENT OF ENVIRONMENTAL QUALITY

DIVISION 230

INCINERATOR REGULATIONS

Municipal Waste Combustors

340-230-0300
Applicability

(1) Applicability: OAR 340-230-0310 through 340-230-0359~~0~~ apply to each municipal waste combustor unit with a combustion capacity greater than 250 tons per day of municipal solid waste for which construction was commenced on or before September 20, 1994.
(a) MWC greater than 250 tons per day that commenced construction after September 20, 1989 and on or before September 20, 1994 are also subject to **40 CFR Part 60 Subpart Ea** as adopted under OAR 340-238-0060.
(b) MWC subject to OAR 340-230-0300 through 340-230-0350 are not subject to the incinerator rules in OAR 340-230-0100 through 340-230-0150.
(2) Exemptions:
(a) Any municipal waste combustion unit that is capable of combusting more than 250 tons per day of municipal solid waste and is subject to a federally enforceable permit limiting the maximum amount of municipal solid waste that may be combusted in the unit to less than or equal to 11 tons per day is not subject to this rule if the owner or operator:
(A) Notifies the Department of an exemption claim;
(B) Provides a copy of the federally enforceable permit that limits the firing of municipal solid waste to less than 11 tons per day; and
(C) Keeps records of the amount of municipal solid waste fired on a daily basis.
(b) Physical or operational changes made to an existing municipal waste combustor unit primarily for the purpose of complying with emission limits under these rules are not considered in determining whether the unit is a modified or reconstructed facility under **40 CFR 60, Subparts Ea or Eb**.
(c) A qualifying small power production facility, as defined in **section 3(17)(C) of the Federal Power Act (16 U.S.C. 796(17)(C))**, that burns homogeneous waste (such as automotive tires or used oil, but not including refuse-derived fuel) for the production of electric energy is not subject to these rules if the owner or operator of the facility notifies the Department of this exemption and provides data documenting that the facility qualifies for this exemption.
(d) A qualifying cogeneration facility, as defined in section **3(18)(B) of the Federal Power Act (16 U.S.C. 796(18)(B))**, that burns homogeneous waste (such as automotive tires or used oil, but not including refuse-derived fuel) for the production of electric energy and steam or forms of useful energy (such as heat) that are used for industrial, commercial, heating, or cooling purposes, is not subject to these rules if the owner or operator of the facility notifies the Department of this exemption and provides data documenting that the facility qualifies for this exemption.
(e) Any unit combusting a single-item waste stream of tires is not subject to this rule if the owner or operator of the unit:
(A) Notifies the Department of an exemption claim; and

(B) Provides data documenting that the unit qualifies for this exemption.
(f) Any unit required to have a permit under section 3005 of the Solid Waste Disposal Act is not subject to these rules.
(g) Any materials recovery facility (including primary or secondary smelters) that combusts waste for the primary purpose of recovering metals is not subject to these rules.
(h) Any cofired combustor, as defined in **40 CFR 60.51b**, that meets the capacity specifications in section (1) of this rule is not subject to these rules if the owner or operator of the cofired combustor:
(A) Notifies the Department of an exemption claim;
(B) Provides a copy of the federally enforceable permit (specified in the definition of cofired combustor); and
(C) Keeps a record on a calendar quarter basis of the weight of municipal solid waste combusted at the cofired combustor and the weight of all other fuels combusted at the cofired combustor.
(i) Pyrolysis/combustion units that are an integrated part of a plastics/rubber recycling unit (as defined in **40 CFR 60.51b**) are not subject to this rule if the owner or operator of the plastics/rubber recycling unit keeps records of:
(A) The weight of plastics, rubber, and/or rubber tires processed on a calendar quarter basis;
(B) The weight of chemical plant feedstocks and petroleum refinery feedstocks produced and marketed on a calendar quarter basis; and
(C) The name and address of the purchaser of the feedstocks. The combustion of gasoline, diesel fuel, jet fuel, fuel oils, residual oil, refinery gas, petroleum coke, liquified petroleum gas, propane, or butane produced by chemical plants or petroleum refineries that use feedstocks produced by plastics/rubber recycling units are not subject to these rules.
(j) Air curtain incinerators that meet the capacity specifications in ~~paragraph~~subsection (a) of this section, and that combust a fuel stream composed of 100 percent yard waste are exempt from all provisions of this subpart except the opacity standard under OAR 340-230-0310, the testing procedures under OAR 340-230-0340, and the reporting and recordkeeping provisions under OAR 340-230-0350.
(k) Air curtain incinerators that meet the capacity specifications in ~~paragraph~~subsection (a) of this section and that combust municipal solid waste other than yard waste are subject to all provisions of this subpart.
(l) Cement kilns firing municipal solid waste are not subject to this subpart.
(m) Any affected facility meeting the applicability requirements under this rule is not subject to **40 CFR part 60 subpart E**.
[Publications: Publications referenced are available from the agency.]
Stat. Auth.: ORS 468.020
Stats.Implemented: ORS 468A.025
Hist.: DEQ 27-1996, f. & cert. ef. 12-11-96; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-025-0950; DEQ 4-2003, f. & cert. ef. 2-06-03

340-230-0310
Emissions Limitations
No person may cause, suffer, allow, or permit the operation of any affected municipal waste combustor unit in a manner that violates the following emission limits and requirements:

(1) Before April 28, 2009, ~~P~~particulate matter emissions from each unit must not exceed 27 milligrams per dry standard cubic meter (0.012 grains per dry standard cubic foot) corrected to 7 percent oxygen.~~;~~ On and after April 28, 2009, particulate matter emissions from each unit must not exceed 25 milligrams per dry standard cubic meter (0.011 grains per dry standard cubic foot) corrected to 7 percent oxygen.

(2) Opacity. The emission limit for opacity exhibited by the gases discharged to the atmosphere from a designated facility must not exceed 10 percent opacity as a 6-minute average.

(3) Municipal Waste Combustor Metals:

(a) Before April 28, 2009, ~~C~~cadmium emissions from each unit must not exceed 0.040 milligrams per dry standard cubic meter (0.000018 gr/dscf) corrected to 7 percent oxygen. On and after April 28, 2009, cadmium emissions from each unit must not exceed 0.020 milligrams per dry standard cubic meter (0.000008 gr/dscf) corrected to 7 percent oxygen.

(b) Before April 28, 2009, ~~L~~lead emissions from each unit must not exceed 0.44~~49~~ milligrams per dry standard cubic meter (0.00020~~1~~ gr/dscf) corrected to 7 percent oxygen. On and after April 28, 2009, lead emissions from each unit must not exceed 0.20 milligrams per dry standard cubic meter (0.00009 gr/dscf) corrected to 7 percent oxygen.

(c) Before April 28, 2009, ~~M~~mercury emissions from each unit must not exceed 0.080 milligrams per dry standard cubic meter (0.000035 gr/dscf) or 15 percent of the potential mercury emission concentration (an 85-percent reduction by weight), corrected to 7 percent oxygen, whichever is less stringent. On and after April 28, 2009, mercury emissions from each unit must not exceed 0.050 milligrams per dry standard cubic meter (0.000022 gr/dscf) or 15 percent of the potential mercury emission concentration (an 85-percent reduction by weight), corrected to 7 percent oxygen, whichever is less stringent.

(4) Sulfur dioxide (SO_2) emissions from each unit must not exceed ~~31~~29 parts per million by volume or 25 percent of the potential sulfur dioxide emission concentration (75-percent reduction by weight or volume), corrected to 7 percent oxygen (dry basis), whichever is less stringent. Compliance with this emission limit is based on a 24-hour daily geometric mean.

(5) Hydrogen chloride (HCl) emissions from each unit must not exceed ~~31~~29 parts per million by volume or 5 percent of the potential hydrogen chloride emission concentration (95-percent reduction by weight or volume), corrected to 7 percent oxygen (dry basis), whichever is less stringent.

(6) The dioxin/furan emissions from each unit must not exceed:

(a) Before April 28, 2009, 60 nanograms per dry standard cubic meter (total mass), corrected to 7 percent oxygen, for a municipal waste combustor unit~~s~~ that employs an electrostatic precipitator-based emission control system;

(b) On and after April 28, 2009, 35 nanograms per dry standard cubic meter (total mass), corrected to 7 percent oxygen, for a municipal waste combustor unit that employs an electrostatic precipitator-based emission control system;

(c~~b~~) Before April 28, 2009, 30 nanograms per dry standard cubic meter (total mass), corrected to 7 percent oxygen, for a municipal waste combustor unit that does not employ an electrostatic precipitator-based emission control system. On and after April 28, 2009, ~~30~~15 nanograms per dry standard cubic meter (total mass), corrected to 7 percent oxygen, for a municipal waste combustor unit~~s~~ that does not employ an electrostatic precipitator-based emission control system.

(7) Emissions of nitrogen oxides from each unit must not exceed 205 parts per million by ~~dry~~ volume on a dry basis corrected to 7 percent ~~O2~~oxygen.

(8) Fugitive Emissions:
(a) No owner or operator may cause or allow visible emissions of combustion ash from an ash conveying system (including conveyor transfer points) in excess of 5 percent of the observation period (i.e., 9 minutes per 3-hour period), as determined by **EPA Reference Method 22** observations, except as provided in ~~paragraphs~~subsections (b) and (c) of this section.
(b) The emission limit specified in ~~paragraph~~subsection (a) of this section does not cover visible emissions discharged inside buildings or enclosures of ash conveying systems; however, the emission limit specified in ~~paragraph~~subsection (a) of this section does cover visible emissions discharged to the atmosphere from buildings or enclosures of ash conveying systems.
(c) The provisions specified in ~~paragraph~~subsection (a) of this section do not apply during maintenance and repair of ash conveying systems.
~~(9) Air Curtain Incinerators. No person may cause, suffer, allow, or permit the operation of any affected air curtain incinerator that burns 100 percent yard waste in a manner that violates the following emission limits and requirements:~~
~~(a) The opacity limit is 10 percent (6-minute average) for air curtain incinerators that can combust at least 35 tons per day of municipal solid waste and no more than 250 tons per day of municipal solid waste.~~
~~(b) The opacity limit is 35 percent (6-minute average) during the startup period that is within the first 30 minutes of operation.~~
[Publications: Publications referenced are available from the agency.]
Stat. Auth.: ORS 468.020
Stats. Implemented: ORS 468A.025
Hist.: DEQ 27-1996, f. & cert. ef. 12-11-96; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-025-0960; DEQ 4-2003, f. & cert. ef. 2-06-03

340-230-0320
Operating Practices
(1) Emissions of carbon monoxide from each unit must not exceed 100 parts per million by volume on a dry basis corrected to 7 percent ~~O2~~oxygen as a 4-~~four~~-hour block arithmetic average.
(2) No owner or operator of an affected facility may cause such facility to operate at a load level greater than 110 percent of the maximum demonstrated municipal waste combustor unit load as defined in **40 CFR 60.51**b except as specified in ~~paragraphs~~subsections (2)(a) and (b) of this rule~~section~~. The averaging time is a 4-hour block arithmetic average as specified under OAR 340-230-0340(9).
(a) During the annual dioxin/furan or mercury performance test and the 2 weeks preceding the annual dioxin/furan or mercury performance test, no municipal waste combustor unit load limit is applicable if the provisions of subsection (2)(b) of this rule are met.
(b) The municipal waste combustor unit load limit may be waived in writing ~~accordance with permission granted~~ by the Adminis-trator ~~or the Department in writing~~ for the purpose of evaluating system performance, testing new technology or control technologies, diagnostic testing, or related activities for the purpose of improving facility performance or advancing the state-of-the-art for controlling facility emissions. The municipal waste combustor unit load limit continues to apply, and remains enforceable, until and unless the Administrator grants the waiver.

(3) No owner or operator of an affected facility may cause or allow such facility to operate at a temperature, measured at the particulate matter control device inlet, exceeding 17°C above the maximum demonstrated particulate matter control device temperature as defined in **40 CFR 60.51b**, except as specified in ~~paragraphs~~subsections (3)(a) and (b) of this rule~~section~~. The averaging time must be a 4-hour block arithmetic average as specified under OAR 340-230-0340(9). The requirements specified in this paragraph apply to each particulate matter control device utilized at the affected facility.
(a) During the annual dioxin/furan or mercury performance test and the 2 weeks preceding the annual dioxin/furan or mercury performance test, no particulate matter control device temperature limitations are applicable if the provisions of subsection (3)(b) of this rule~~section~~ are met.
(b) The particulate matter control device temperature limits may be waived in writing ~~in accordance with permission granted~~ by the Administrator~~ or delegated State regulatory authority~~ for the purpose of evaluating system performance, testing new technology or control technologies, diagnostic testing, or related activities for the purpose of improving facility performance or advancing the state-of-the-art for controlling facility emissions. The temperature limits continues to apply, and remains enforceable, until and unless the Administrator grants the waiver.
[Publications: Publications referenced are available from the agency.]
Stat. Auth.: ORS 468.020
Stats. Implemented: ORS 468A.025
Hist.: DEQ 27-1996, f. & cert. ef. 12-11-96; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-025-0970; DEQ 4-2003, f. & cert. ef. 2-06-03

340-230-0330
Operator Training and Certification
(1) Each chief facility operator and shift supervisor must have completed full certification with either the **American Society of Mechanical Engineers** (ASME) [**QRO-1-1994** - see **40 CFR 60.17**] or other State approved certification program.
(2) If a chief facility operator or shift supervisor is not fully certified in accordance with section (1) of this rule~~OAR 340-230-0330(1)~~, the chief facility operator and~~or~~ shift supervisor must obtain and maintain a current provisional operator certification from either the ~~**American Society of Mechanical Engineers (**~~ASME~~)~~ [**QRO-1-1994** - see **40 CFR 60.17**] or other State approved certification and must have scheduled a full certification exam with either the ASME [**QRO-1-1994**] or other State approved certification program.
(3) No owner or operator of an affected facility may allow the facility to be operated at any time unless one of the following persons is on duty and at the affected facility: A fully certified chief facility operator, a provisionally certified chief facility operator who is scheduled to take the full certification exam, a fully certified shift supervisor, or a provisionally certified shift supervisor who is scheduled to take the full certification exam.
(a~~4~~) If both the certified chief operator and certified shift supervisor are unavailable~~one of the persons listed in OAR 340-230-0330(3) must leave the affected facility during their operating shift~~, a provisionally certified control room operator ~~who is~~ on site at the affected facility may fulfill the certified operator requirement~~ in OAR 340-230-0330(3)~~. Depending on the length of

time that a certified chief operator and certified shift supervisor are away, the owner or operator of the affected facility must meet one of the three criteria:

(A) When the certified chief facility operator and certified shift supervisor are both off site for 12 hours or less, and no other certified operator is on site, the provisionally certified control room operator may perform the duties of the certified chief facility operator or certified shift supervisor.

(B) When the certified chief facility operator and certified shift supervisor are off site for more than 12 hours, but for two weeks or less, and no other certified operator is on site, the provisionally certified control room operator may perform the duties of the certified chief facility operator or certified shift supervisor without notice or approval. However, the owner or operator of the affected facility must record the period when the certified chief facility operator and certified shift supervisor are off site and include that information in the annual report as specified under OAR 340-230-0350(3)(e).

(C) When the certified chief facility operator and certified shift supervisor are off site for more than two weeks, and no other certified operator is on site, the provisionally certified control room operator may perform the duties of the certified chief facility operator or certified shift supervisor without approval. However, the owner or operator of the affected facility must take two actions:

(i) Notify the Department in writing. In the notice, state what caused the absence and what actions are being taken by the owner or operator of the facility to ensure that a certified chief facility operator or certified shift supervisor is on site as expeditiously as practicable.

(ii) Submit a status report and corrective action summary to the Department every four weeks following the initial notification. If the Department provides notice that the status report or corrective action summary is disapproved, the municipal waste combustion unit may continue operation for 90 days, but then must cease operation. If corrective actions are taken in the 90-day period such that the Department withdraws the disapproval, municipal waste combustion unit operation may continue.

(b) A provisionally certified operator who is newly promoted or recently transferred to a shift supervisor position or a chief facility operator position at the municipal waste combustion unit may perform the duties of the certified chief facility operator or certified shift supervisor without notice to, or approval for up to six months before taking the ASME QRO certification exam.

(4~~5~~) The owner or operator of an affected facility must develop and update on a yearly basis a site-specific operating manual that, at a minimum, addresses the elements of municipal waste combustor unit operation specified in subsections (4)(a) through (k) of this rule~~below~~:

(a) A summary of the applicable standards under OAR 340-230-0310~~0~~ through 340-230-0335~~0~~;

(b) A description of basic combustion theory applicable to a municipal waste combustor unit;

(c) Procedures for receiving, handling, and feeding municipal solid waste;

(d) Municipal waste combustor unit startup, shutdown, and malfunction procedures;

(e) Procedures for maintaining proper combustion air supply levels;

(f) Procedures for operating the municipal waste combustor unit within the standards established under OAR 340-230-0310~~0~~ through 340-230-0335~~0~~;

(g) Procedures for responding to periodic upset or off-specification conditions;

(h) Procedures for minimizing particulate matter carryover;

(i) Procedures for handling ash;

(j) Procedures for monitoring municipal waste combustor unit emissions; and

(k) Reporting and recordkeeping procedures.

(5~~6~~) The owner or operator of an affected facility must establish a training program to review the operating manual according to the schedule specified in subsections (5)(a) and (b) of this rule~~section~~ with each person who has responsibilities affecting the operation of an affected facility including, but not limited to, chief facility operators, shift supervisors, control room operators, ash handlers, maintenance personnel, and crane/load handlers.

(a) Each person specified in section ~~OAR 340-230-0330~~(5~~6~~) of this rule must undergo initial training no later than the date specified in paragraph (5)(a)(A) or (B) of this rule, whichever is later.

(A) The date before the day the person assumes responsibilities affecting municipal waste combustor unit operation; or

(B) June 19, 1998.

(b) Annually, following the initial review required by subsection (5)(a) of this rule.

(6~~7~~) The operating manual required by section ~~OAR 340-230-0330~~(4~~5~~) of this rule must be kept in a readily accessible location for all persons required to undergo training under section ~~OAR 340-230-0330~~(5~~6~~) of this rule. The operating manual and records of training must be available for inspection by the EPA or the Department upon request.

[Publications: Publications referenced are available from the agency.]

Stat. Auth.: ORS 468.020

Stats. Implemented: ORS 468A.025

Hist.: DEQ 27-1996, f. & cert. ef. 12-11-96; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-025-0980; DEQ 4-2003, f. & cert. ef. 2-06-03

340-230-0335

Standards for Municipal Waste Combustor Fugitive Ash Emissions

(1) No owner or operator of an affected facility shall cause to be discharged to the atmosphere visible emissions of combustion ash from an ash conveying system (including conveyor transfer points) in excess of 5 percent of the observation period (i.e., 9 minutes per 3-hour period), as determined by EPA Reference Method 22 observations as specified in OAR 340-230-0340(11), except as provided in sections (2) and (3) of this rule.

(2) The emission limit specified in section (1) of this rule does not cover visible emissions discharged inside buildings or enclosures of ash conveying systems; however, the emission limit specified in section (1) of this rule does cover visible emissions discharged to the atmosphere from buildings or enclosures of ash conveying systems.

(3) The provisions specified in section (1) of this rule do not apply during maintenance and repair of ash conveying systems.

340-230-0340

Monitoring and Testing

(1) The standards under OAR 340-230-0300~~10~~ through 0359 apply at all times except during periods of startup, shutdown, ~~or~~and malfunction. Duration of startup, shutdown, or malfunction periods are limited to 3 hours per occurrence, except as provided in subsection (1)(c) of this rule~~section~~. During periods of startup, shutdown, or malfunction, monitoring data must be dismissed or excluded from compliance calculations, but must be recorded and reported in accordance with the provisions of OAR 340-230-0350(1)(f).

(a) The startup period commences when the affected facility begins the continuous burning of municipal solid waste and does not include any warmup period when the affected facility is combusting fossil fuel or other nonmunicipal solid waste fuel, and no municipal solid waste is being fed to the combustor.

(b) Continuous burning is the continuous, semicontinuous, or batch feeding of municipal solid waste for purposes of waste disposal, energy production, or providing heat to the combustion system in preparation for waste disposal or energy production. The use of municipal solid waste solely to provide thermal protection of the grate or hearth during the startup period when municipal solid waste is not being fed to the grate is not considered to be continuous burning.

(c) For purposes of compliance with the carbon monoxide emissions limit in OAR 340-230-320(1), if a loss of boiler water level control (e.g., boiler waterwall tube failure) or a loss of combustion air control (e.g., loss of combustion air fan, induced draft fan, combustion grate bar failure) is determined to be a malfunction, the duration of the malfunction period is limited to 15 hours per occurrence. During such periods of malfunction, monitoring data must be dismissed or excluded from compliance calculations, but must be recorded and reported in accordance with the provisions of OAR 340-230-0350(1)(f).

(2) The owner or operator of an affected facility must install, calibrate, maintain, and operate a continuous emission monitoring system ~~and record the output of the system~~ for measuring the oxygen or carbon dioxide content of the flue gas at each location where carbon monoxide, sulfur dioxide, or nitrogen oxides emissions, or particulate matter (if the owner or operator elects to continuously monitor emissions under section (13) of this rule) are monitored and record the output of the system and must comply with the test procedures and test methods specified ~~below~~in subsections (2)(a) through (g) of this rule.

(a) The span value of the oxygen (or carbon dioxide) monitor must be~~is~~ 25 percent oxygen (or 20 percent carbon dioxide).

(b) The monitor must be installed, evaluated, and operated in accordance with **40 CFR 60.13**.

(c) The monitor must conform to **Performance Specification 3** in **appendix B** of **40 CFR 60** except for section 2.3 (relative accuracy requirement).

(d) The quality assurance procedures of **Appendix F** of **40 CFR 60** except for section 5.1.1 (relative accuracy test audit) shall apply to the monitor.

(e) If carbon dioxide is selected for use in diluent corrections, the relationship between oxygen and carbon dioxide levels must be established ~~by the owner or operator~~ during the initial performance test ~~after December 31, 1997, but not later than June 8, 2004,~~ according to the following procedures and methods specified in paragraphs (2)(e)(A) through (D) of this rule. This relationship may be reestablished during subsequent performance compliance tests.

(A) The fuel factor equation in Method 3B must be used to determine the relationship between oxygen and carbon dioxide at a sampling location. ~~emission rate correction factor and the integrated bag sampling and analysis procedure of~~ **EPA Reference Method 3, 3A, ~~or~~ 3B**, or as an alternative **ASME PTC-19-10-1981-Part 10**, as applicable, must be used to determine the oxygen concentration at the same location as the carbon dioxide monitor.

(B) Samples must be taken for at least 30 minutes in each hour.

(C) Each sample must represent a 1-hour average.

(D) A minimum of three runs must be performed.

(f) The relationship between carbon dioxide and oxygen concentrations that is established in accordance with subsection (2)(e) of this rule~~section~~ must be submitted to the Department as part

of the annual performance test report ~~for the first test conducted after December 31, 2003~~ if the relationship is reestablished during the annual performance test.
(g) During a loss of boiler water level control or loss of combustion air control malfunction period as specified in subsection (1)(c) of this rule, a diluent cap of 14 percent for oxygen or 5 percent for carbon dioxide may be used in the emissions calculations for sulfur dioxide and nitrogen oxides.
(3) Except as provided in subsection (3)(i) of this rule, t~~T~~he procedures and test methods specified in subsections (3)(a) through (j) of this rule ~~below~~ must be used to determine compliance with the emission limits for particulate matter and opacity under OAR 340-230-0310(1) and (2).
(a) **EPA Reference Method 1** must be used to select sampling site and number of traverse points.
(b) **EPA Reference Method 3**, ~~or~~ **3A** or **3B**, or as an alternative **ASME PTC-19-10-1981-Part 10**, as applicable, must be used for gas analysis.
(c) **EPA Reference Method 5** must be used for determining compliance with the particulate matter emission limit. The minimum sample volume must be 1.7 cubic meters (60 cubic feet). The probe and filter holder heating systems in the sample train must be set to provide a gas temperature no ~~less than or~~ greater than 160~~ ± 14~~°C (320~~ ± 25~~°F). An oxygen or carbon dioxide measurement must be obtained simultaneously with each **EPA Reference Method 5** run.
(d) The~~An~~ owner or operator of an affected facility may request that compliance with the particulate matter emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility must be established as specified in subsection (2)(e) of this rule~~OAR 340-230-0340(2)(e)~~.
(e) As specified under 40 CFR 60.8, A~~a~~ll performance tests must consist of at least three test runs ~~conducted under representative full load operating conditions and at least two of the test runs must be valid~~. The average of the particulate matter emission concentrations from the three~~all valid~~ test runs is used to determine compliance.
(f) In accordance with subsections (3)(g) and (j) of this rule, **EPA Reference Method 9** must~~is to~~ be used for determining compliance with the opacity limit except as provided under **40 CFR 60.11(e)**.
(g) The owner or operator of an affected facility must install, calibrate, maintain, and operate a continuous opacity monitoring system for measuring opacity and must follow the methods and procedures specified in paragraphs (3)(g)(A) through (C) of this rule~~by **40 CFR 60.13**~~.
(A) The output of the continuous opacity monitoring system must be recorded on a 6-minute average basis.
(B) The continuous opacity monitoring system must be installed, evaluated, and operated in accordance with 40 CFR 60.13.
(C~~B~~) The continuous opacity monitoring system must conform to **Performance Specification 1** in **appendix B** of **40 CFR Part 60**.
(h) ~~For each affected facility, t~~The owner or operator of an affected facility must conduct a performance test for particulate matter on a~~n~~ calendar year ~~annual~~ basis (no less ~~more~~ than 9~~12~~ calendar months and no more than 15 calendar months following the previous performance test; and must complete five performance tests in each 5-year calendar period).

(i) In place of particulate matter testing with **EPA Reference Method 5**, an owner or operator may elect to install, calibrate, maintain, and operate a continuous emission monitoring system for monitoring particulate matter emissions discharged to the atmosphere and record the output of the system. The owner or operator of an affected facility who elects to continuously monitor particulate matter emissions instead of conducting performance testing using **EPA Reference Method 5** must install, calibrate, maintain, and operate a continuous emission monitoring system and must comply with the requirements specified in paragraphs (3)(i)(A) through (N) of this rule. The owner or operator who elects to continuously monitor particulate matter emissions instead of conducting performance testing using **EPA Reference Method 5** is not required to complete performance testing for particulate matter as specified in subsection (3)(h) of this rule and is not required to continuously monitor opacity as specified in subsection (3)(g) of this rule.
(A) Notify the Administrator and the Department one month before starting use of the system.
(B) Notify the Administrator and the Department one month before stopping use of the system.
(C) The monitor must be installed, evaluated, and operated in accordance with **40 CFR 60.13**.
(D) The initial performance evaluation must be completed no later than 180 days of notification to the Administrator and the Department of use of the continuous monitoring system if the owner or operator was previously determining compliance by Method 5 performance tests, whichever is later.
(E) The owner or operator of an affected facility may request that compliance with the particulate matter emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility must be established as specified in subsection (2)(e) of this rule.
(F) The owner or operator of an affected facility must conduct an initial performance test for particulate matter emissions as required under **40 CFR 60.8**. Compliance with the particulate matter emission limit must be determined by using the continuous emission monitoring system specified in subsection (3)(i) of this rule to measure particulate matter and calculating a 24-hour block arithmetic average emission concentration using **EPA Reference Method 19**, **section 12.4.1**.
(G) Compliance with the particulate matter emission limit must be determined based on the 24-hour daily (block) average of the hourly arithmetic average emission concentrations using continuous emission monitoring system outlet data.
(H) At a minimum, valid continuous monitoring system hourly averages must be obtained as specified in subparagraphs (3)(i)(H)(i) and (ii) of this rule for at least 90 percent of the operating hours per calendar quarter and 95 percent of the operating hours per calendar year that the affected facility is combusting municipal solid waste.
(i) At least two data points per hour must be used to calculate each 1-hour arithmetic average.
(ii) Each particulate matter 1-hour arithmetic average must be corrected to 7 percent oxygen on an hourly basis using the 1-hour arithmetic average of the oxygen (or carbon dioxide) continuous emission monitoring system data.
(I) The 1-hour arithmetic averages required under paragraph (3)(i)(G) of this rule must be expressed in milligrams per dry standard cubic meter corrected to 7 percent oxygen (dry basis) and must be used to calculate the 24-hour daily arithmetic average emission concentrations. The 1-hour arithmetic averages must be calculated using the data points required under **40 CFR 60.13(e)(2)**.

(J) All valid continuous emission monitoring system data must be used in calculating average emission concentrations even if the minimum continuous emission monitoring system data requirements of paragraph (3)(i)(H) of this rule are not met.
(K) The continuous emission monitoring system must be operated according to **Performance Specification 11** in **40 CFR part 60 appendix B**.
(L) During each relative accuracy test run of the continuous emission monitoring system required by **Performance Specification 11** in **40 CFR part 60 appendix B**, particulate matter and oxygen (or carbon dioxide) data must be collected concurrently (or within a 30- to 60-minute period) by both the continuous emission monitors and the test methods specified in subparagraphs (3)(i)(L)(i) and (ii) of this rule.
(i) For particulate matter, **EPA Reference Method 5** must be used.
(ii) For oxygen (or carbon dioxide), **EPA Reference Method 3**, **3A**, or **3B**, as applicable must be used.
(M) Quarterly accuracy determinations and daily calibration drift tests must be performed in accordance with **Procedure 2** in **40 CFR part 60 appendix F**.
(N) When particulate matter emissions data are not obtained because of continuous emission monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, emissions data must be obtained by using other monitoring systems as approved by the Administrator or **EPA Reference Method 19** to provide, as necessary, valid emissions data for a minimum of 90 percent of the hours per calendar quarter and 95 percent of the hours per calendar year that the affected facility is operated and combusting municipal solid waste.
(j~~i~~) For each affected facility, the owner or operator must conduct a performance test for opacity on an annual basis (no ~~more~~less than 9 calendar months and no more than 15~~12~~ calendar months following the previous performance test; and must complete five performance tests in each 5-year calendar period) using the test method specified in subsection (3)(f) of this rule.
(4) The procedures and test methods specified in subsections (4)(a) and (b) of this rule~~below~~ must be used to determine compliance with the emission limits for cadmium, lead, and mercury under OAR 340-230-0310(3).
(a) The procedures and test methods specified in paragraphs (4)(a)(A) through (G) of this rule~~below~~ must be used to determine compliance with the emission limits for cadmium and lead under OAR 340-230-0310(3)(a) and (b).
(A) **EPA Reference Method 1** must be used for determining the location and number of sampling points.
(B) **EPA Reference Method 3**, **3A**, or **3B**, or as an alternative **ASME PTC-19-10-1981-Part 10**, as applicable, must be used for flue gas analysis.
(C) **EPA Reference Method 29** must be used for determining compliance with the cadmium and lead emission limits. ~~The minimum sample volume is 1.7 dscm (60 dscf).~~
(D) An oxygen or carbon dioxide measurement must be obtained simultaneously with each **EPA Reference Method 29** test run for cadmium and lead required under paragraph (4)(a)(C) of this rule.
(E) The~~An~~ owner or operator of an affected facility may request that compliance with the cadmium or lead emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility must be established as specified in subsection (2)(e) of this rule~~OAR 340-230-0340(2)(e)~~.

(F) All performance tests must consist of at least three test runs conducted under representative full load operating conditions~~ and at least two of the test runs must be valid~~. The average of the cadmium and lead emission concentrations from three~~all valid~~ test runs or more must be~~is~~ used to determine compliance.

(G) ~~For each affected facility, t~~The owner or operator of an affected facility must conduct a performance test for compliance with the emission limits for cadmium and lead on a~~n~~ calendar year ~~annual~~ basis (no less than 9 calendar months and no more than 15~~2~~ calendar months following the previous performance test; and must complete five performance tests in each 5-year calendar period)~~, thereafter~~.

(b) The procedures and test methods specified in paragraphs (4)(b)(A) through (I) of this rule~~below~~ must be used to determine compliance with the mercury emission limit under OAR 340-230-0310(3)(c).

(A) **EPA Reference Method 1** must be used for determining the location and number of sampling points.

(B) **EPA Reference Method 3**, **3A**, or **3B**, or as an alternative **ASME PTC-19-10-1981-Part 10**, as applicable, must be used for flue gas analysis.

(C) **EPA Reference Method 29** or as an alternative **ASTM D6784-02** must be used to determine the mercury emission concentration. The minimum sample volume when using **EPA Reference Method 29** or as an alternative **ASTM D6784-02** for mercury is 1.7 cubic meters (60 cubic feet).

(D) An oxygen (or carbon dioxide) measurement must be obtained simultaneously with each **EPA Reference Method 29** or as an alternative **ASTM D6784-02** test run for mercury required under paragraph (4)(b)(C) of this rule.

(E) The percent reduction in the potential mercury emissions (%PHg) is computed using equation 1~~2~~: [Equation not included. See ED. NOTE.]

(F) All performance tests must consist of a minimum of~~at least~~ three test runs conducted under representative full load operating conditions~~ and at least two of the test runs must be valid~~. The average of the mercury emission concentrations or percent reductions from three~~all valid~~ test runs or more is used to determine compliance.

(G) The~~An~~ owner or operator of an affected source may request that compliance with the mercury emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility must be established as specified in subsection (2)(e) of this rule~~OAR 340-230-0340(2)(e)~~.

(H) The owner or operator of an affected facility must conduct a performance test for mercury emissions on a~~n~~ calendar year ~~annual~~ basis (no less than 9 calendar months and no more than 15~~2~~ calendar months from the previous performance test; and must complete five performance tests in each 5-year calendar period).

(I) The owner or operator of an affected facility where activated carbon injection is used to comply with the mercury emission limit must follow the procedures specified in section ~~OAR 340-230-0340~~(12) of this rule for measuring and calculating carbon usage.

(c) In place of cadmium and lead testing with **EPA Reference Method 29** or as an alternative **ASTM D6784-02**, an owner or operator may elect to install, calibrate, maintain, and operate a continuous emission monitoring system for monitoring cadmium and lead emissions discharged to the atmosphere and record the output of the system according to the provisions of sections (13) and (14) of this rule.

(d) In place of mercury testing with **EPA Reference Method 29** or as an alternative **ASTM D6784-02**, an owner or operator may elect to install, calibrate, maintain, and operate a continuous emission monitoring system or a continuous automated sampling system for monitoring mercury emissions discharged to the atmosphere and record the output of the system according to the provisions of sections (13) and (14) of this rule, or sections (15) and (16) of this rule, as appropriate. The owner or operator who elects to continuously monitor mercury in place of mercury testing with **EPA Reference Method 29** or as an alternative **ASTM D6784-02** is not required to complete performance testing for mercury as specified in paragraph (4)(b)(H) of this rule~~section~~.

(5) The procedures and test methods specified in subsections (5)(a) through (l) of this rule~~below~~ must be used for determining compliance with the sulfur dioxide emission limit under OAR 340-230-0310(4).

~~(a) Compliance with the sulfur dioxide emission limit must be determined based on the 24-hour daily geometric average of the hourly arithmetic average emission concentrations using continuous emission monitoring system outlet data if compliance is based on an emission concentration, or continuous emission monitoring system inlet and outlet data if compliance is based on a percent reduction.~~

(a~~b~~) **EPA Reference Method 19**, section 4.3, must be used to calculate the daily geometric average sulfur dioxide emission concentration.

(b~~c~~) **EPA Reference Method 19**, section 5.4, must be used to determine the daily geometric average percent reduction in the potential sulfur dioxide emission concentration.

(c~~d~~) The~~An~~ owner or operator of an affected facility may request that compliance with the sulfur dioxide emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility must be established as specified in subsection ~~OAR 340-230-0340~~(2)(e) of this rule.

(d) Compliance with the sulfur dioxide emission limit (concentration or percent reduction) must be determined by using the continuous emission monitoring system specified in subsection (5)(e) of this rule to measure sulfur dioxide and calculating 24-hour daily geometric average emission concentration or a 24-hour daily geometric average percent reduction using **EPA reference Method 19**, sections 4.3 and 5.4, as applicable.

(e) The owner or operator of an affected facility must install, evaluate, calibrate, maintain, and operate a continuous emission monitoring system for measuring sulfur dioxide emissions discharged to the atmosphere and record the output of the system in accordance with **40 CFR 60.13**. ~~If showing compliance with the percent reduction standards, the owner or operator must also install, calibrate, maintain, and operate a continuous monitoring system for measuring the sulfur dioxide concentration at the inlet to the sulfur dioxide control device and record the output in accordance with **40 CFR 60.13**.~~

(f) Compliance with the sulfur dioxide emission limit must be determined based on the 24-hour daily geometric average of the hourly arithmetic average emission concentrations using continuous emission monitoring system outlet data if compliance is based on an emission concentration, or continuous emission monitoring system inlet and outlet data if compliance is based on a percent reduction.

(g~~f~~) At a minimum, valid continuous monitoring system hourly averages must be obtained as specified in paragraphs (5)(g)(A) and (B) of this rule for ~~75~~90 percent of the operating hours per

~~day for 90 percent of the operating days per~~ calendar quarter and 95 percent of the operating hours per calendar year that the affected facility is combusting municipal solid waste.
(A) At least two data points~~, separated by at least 15 minutes,~~ per hour must be used to calculate each 1-hour arithmetic average.
(B) Each sulfur dioxide 1-hour arithmetic average must be corrected to 7 percent oxygen on an hourly basis using the 1-hour arithmetic average of the oxygen (or carbon dioxide) continuous emission monitoring system data.
(h~~g~~) The 1-hour arithmetic averages required under subsection (5)(f) of this rule must be expressed in parts per million corrected to 7 percent oxygen (dry basis) and used to calculate the 24-hour daily geometric average emission concentrations and daily geometric average emission percent reductions. The 1-hour arithmetic averages must be calculated using the data points required under **40 CFR 60.13(e)(2)**.
(i~~h~~) All valid continuous emission monitoring system data must be used in calculating average emission concentrations and percent reductions even if the minimum continuous emission monitoring system data requirements of subsection (5)(g) of this rule are not met.
(j~~i~~) The continuous emission monitoring system must be operated according to **Performance Specification 2** in **appendix B of 40 CFR 60**. For sources that have actual inlet emissions less than 100 parts per million dry volume, the relative accuracy criterion for inlet sulfur dioxide continuous emission monitoring systems should be no greater than 20 percent of the mean value of the reference method test data in terms of the units of the emission standard, or 5 parts per million dry volume absolute value of the mean difference between the reference method and the continuous emission monitoring systems, whichever is greater.
(A) During each relative accuracy test run of the continuous emission monitoring system required by **Performance Specification 2** in **appendix B** of **40 CFR 60**, sulfur dioxide and oxygen (or carbon dioxide) must be collected concurrently (or within a 30- to 60-minute period) by both the continuous emission monitors and the test methods specified ~~as follows:~~in subparagraphs (5)(j)(A)(i) and (ii) of this rule.
(i) For sulfur dioxide, **EPA Reference Method 6**, **6A**, or **6C**, or as an alternative **ASME PTC-19-10-1981-Part 10**, must be used.~~; and,~~
(ii) F~~f~~or oxygen (or carbon dioxide), **EPA Reference Method 3**, **3A**, or **3B**, or as an alternative **ASME PTC-19-10-1981-Part 10**, must be used.
(B) The span value of the continuous emissions monitoring system at the inlet to the sulfur dioxide control device must be 125 percent of the maximum estimated hourly potential sulfur dioxide emissions of the municipal waste combustor unit. The span value of the continuous emission monitoring system at the outlet of the sulfur dioxide control device must be 50 percent of the maximum estimated hourly potential sulfur dioxide emissions of the municipal waste combustor unit.
(k~~j~~) Quarterly accuracy determinations and daily calibration tests must be performed in accordance with ~~p~~**Procedure 1** in **Appendix F** of **40 CFR 60**.
(l~~k~~) When sulfur dioxide emissions data are not obtained because of continuous emission monitoring system breakdowns, repairs, calibration checks, and/or zero and span adjustments, emissions data must be obtained by using other monitoring systems as approved by the Department or **EPA Reference Method 19** to provide, as necessary, valid emissions data for a minimum of 90~~75~~ percent of the hours per calendar quarter~~day that the affected facility is~~

~~operated and combusting municipal solid waste for~~ and 95~~0~~ percent of the hours ~~days~~ per calendar year~~quarter~~ that the affected facility is operated and combusting municipal solid waste.

(6) The procedures and test methods specified in subsections (6)(a) through (h) if this rule~~below~~ must be used for determining compliance with the hydrogen chloride emission limit under OAR 340-230-0310(5).

(a) **EPA Reference Method 26** or **26A**, as applicable, must be used to determine the hydrogen chloride emission concentration. The minimum sampling time for ~~**Method 26**~~ must be 1 hour.

(b) An oxygen (or carbon dioxide) measurement must be obtained simultaneously with each ~~**Method 26**~~ test run for hydrogen chloride required by subsection (6)(a) of this rule.

(c) The percent reduction in potential hydrogen chloride emissions (% PHCl) is computed using equation 2~~3~~: [Equation not included. See ED. NOTE.]

(d) The~~An~~ owner or operator of an affected facility may request that compliance with the hydrogen chloride emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility must be established as specified in subsection ~~OAR 340-230-0340~~(2)(e) of this rule.

(e) As specified under **40 CFR 60.8**, ~~A~~all performance tests must consist of ~~at least~~ three test runs. ~~conducted under representative full load operating conditions and at least two of the test runs must be valid.~~ The average of the hydrogen chloride emission concentrations from the~~all valid~~ three test runs is used to determine compliance.

(f) The owner or operator of an affected facility must conduct a performance test for hydrogen chloride emissions on a~~n~~ ~~annual~~ calendar year basis (no less than 9 calendar months and no more than ~~12~~15 calendar months following the previous performance test; and must complete five performance tests in each 5-year calendar period).

(g) In place of hydrogen chloride testing with **EPA Reference Method 26 or 26A**, an owner or operator may elect to install, calibrate, maintain, and operate a continuous emission monitoring system for monitoring hydrogen chloride emissions discharged to the atmosphere and record the output of the system according to the provisions of sections (13) and (14) of this rule.

(7) The procedures and test methods specified in subsections (7)(a) through (h) of this rule~~below~~ must be used ~~by the owner or operator~~ to determine compliance with the limits for dioxin/furan emissions under OAR 340-230-0310(6).

(a) **EPA Reference Method 1** must be used for determining the location and number of sampling points.

(b) **EPA Reference Method 3**, **3A**, or **3B**, or as an alternative **ASME PTC-19-10-1981-Part 10**, as applicable, must be used for flue gas analysis.

(c) **EPA Reference Method 23** must be used for determining the dioxin/furan emission concentration.

(A) The minimum sample time must be~~is~~ 4 hours per test run.

(B) An oxygen (or carbon dioxide) measurement must be obtained simultaneously with each **EPA Reference Method 23** test run for dioxins/furans.

(d) The owner or operator of an affected facility must conduct performance tests for dioxin/furan emissions in accordance~~ing~~ with subsection (7)(c) of this rule, according to one of the ~~following~~ schedules specified in paragraphs (7)(d)(A) through (C) of this rule.

(A) Performance tests must be conducted on a~~n~~ calendar year~~annual~~ basis (no less than 9 calendar months and no more than 15~~2~~ calendar months following the previous performance test~~.~~; and must complete five performance tests in each 5-year calendar period).

(B) For the purpose of evaluating system performance to establish new operating parameter levels, testing new technology or control technologies, diagnostic testing, or related activities for the purpose of improving facility performance or advancing the state-of-the-art for controlling facility emissions, the owner or operator of an affected facility that qualifies for the performance testing schedule specified in paragraph (7)(d)(C) of this rule, may test one unit for dioxin/furan and apply the dioxin/furan operating parameters to similarly designed and equipped units on site by meeting the requirements specified in subparagraphs (7)(d)(B)(i) through (iv) of this rule.

(i) Follow the testing schedule established in paragraph (7)(d)(C) of this rule. For example, each year a different affected facility at the municipal waste combustor plant must be tested, and the affected facilities at the plant must be tested in sequence (e.g., unit 1, unit 2, unit 3, as applicable).

(ii) Where such units use carbon to meet the applicable dioxin/furan emission limit, upon meeting the requirements in paragraph (7)(d)(C) of this rule for one affected facility, the owner or operator may elect to apply the average carbon mass feed rate and associated carbon injection system operating parameter levels for dioxin/furan as established in section (13) of this rule to similarly designed and equipped units on site.

(iii) Upon testing each subsequent unit in accordance with the testing schedule established in paragraph (7)(d)(C) of this rule, the dioxin/furan and mercury emissions of the subsequent unit must not exceed the dioxin/furan and mercury emissions measured in the most recent test of that unit prior to the revised operating parameter levels.

(iv) The owner or operator of an affected facility that selects to follow the performance testing schedule specified in paragraph (7)(d)(C) of this rule and apply the carbon injection system operating parameters to similarly designed and equipped units on site must follow the procedures specified in OAR 340-230-0350(3)(d) for reporting.

(C) Where all performance tests ~~for all affected facilities~~ over a 2-year period indicate that dioxin/furan emissions are less than or equal to 7 nanograms per dry standard cubic meter (total mass) for all affected facilities located within a municipal waste combustor plant, the owner or operator of the municipal waste combustor plant may elect to conduct annual performance tests for one affected facility (i.e., unit) per year at the municipal waste combustor plant. At a minimum, a performance test for dioxin/furan emissions must be conducted on a calendar year basis~~annually~~ (no ~~more~~less than 9~~12~~ calendar months and no more than 15 months following the previous performance test; and must complete five performance tests in each 5-year calendar period) for one affected facility at the municipal waste combustor plant. Each year a different affected facility at the municipal waste combustor plant must be tested, and the affected facilities at the plant must be tested in sequence (e.g., unit 1, unit 2, unit 3, as applicable). If each annual performance test continues to indicate a dioxin/furan emission level less than or equal to 7 nanograms per dry standard cubic meter (total mass), the owner or operator may continue conducting a performance test on only one affected facility per year. If any annual performance test indicates either a dioxin/furan emission level greater than 7 nanograms per dry standard cubic meter (total mass), performance tests thereafter must be conducted annually on all affected facilities at the plant until and unless all annual performance tests for all affected facilities at the

plant over a 2-year period indicate a dioxin/furan emission level less than or equal to 7 nan~~a~~ograms per dry standard cubic meter (total mass).
(e) The owner or operator of an affected facility that selects to follow the performance testing schedule specified in paragraph (7)(d)(C) of this rule must follow the procedures specified in OAR 340-230-0350(3)(d) for reporting the selection of this schedule.
(f~~e~~) The owner or operator of an affected facility where activated carbon is used ~~to comply with the dioxin/furan emission limits or the dioxin/furan emission level specified in OAR 340-230-0340(7)(d)~~ must follow the procedures specified in section (12) of this rule~~OAR 340-230-0340(13)~~ for measuring and calculating the carbon usage rate.
(g~~f~~) The~~An~~ owner or operator of an affected facility may request that compliance with the dioxin/furan emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility must be established as specified in subsection ~~OAR 340-230-0340~~(2)(e) of this rule.
(h~~g~~) As specified under **40 CFR 60.8**, ~~A~~all performance tests must consist of ~~at least~~ three test runs ~~conducted under representative full load operating conditions and at least two of the test runs must be valid~~. The average of the dioxin/furan emission concentrations from the three~~all valid~~ test runs is used to determine compliance.
(i~~h~~) In place of dioxin/furan sampling and testing with **EPA Reference Method 23**, an owner or operator may elect to sample dioxin/furan by installing, calibrating, maintaining, and operating a continuous automated sampling system for monitoring dioxin/furan emissions discharged to the atmosphere, recording the output of the system, and analyzing the sample using **EPA Reference Method 23**. This option to use a continuous automated sampling system takes effect on the date a final performance specification applicable to dioxin/furan from monitors is published in the Federal Register or the date of approval of a site-specific monitoring plan. The owner or operator of an affected facility who elects to continuously sample dioxin/furan emissions instead of sampling and testing using **EPA Reference Method 23** must install, calibrate, maintain, and operate a continuous automated sampling system and must comply with the requirements specified in sections (15) and (16) of this rule.
(8) The procedures and test methods specified in subsections (8)(a) through (i) of this rule~~below~~ must be used to determine compliance with the nitrogen oxides emission limit for affected facilities.
(a) Compliance with the nitrogen oxides emission limit must be determined by using the continuous emission monitoring system specified in subsection ~~OAR 340-230-0340~~(8)(c) of this rule for measuring nitrogen oxides and calculating a 24-hour daily arithmetic average emission concentration using **EPA Reference Method 19**, **section 4.1**.
(b) An owner or operator may request that compliance with the nitrogen oxides emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility must be established as specified in subsection ~~OAR 340-230-0340~~(2)(e) of this rule.
(c) The owner or operator of an affected facility must install, calibrate, maintain, and operate a continuous emission monitoring system for measuring nitrogen oxides discharged to the atmosphere, and record the output of the system ~~in accordance with **40 CFR 60.13**~~.
(d) At a minimum, valid continuous emission monitoring system hourly averages must be obtained as specified in paragraphs (8)(d)(A) and (B) of this rule for 90~~75~~ percent of the

operating hours per ~~day~~calendar quarter and for 95~~0~~ percent of the operating hours~~days~~ per calendar year~~quarter~~ that the affected facility is combusting municipal solid waste.
(A) At least 2 data points~~, separated by at least 15 minutes,~~ per hour must be used to calculate each 1-hour arithmetic average.
(B) Each nitrogen oxides 1-hour arithmetic average must be corrected to 7 percent oxygen on an hourly basis using the 1-hour arithmetic average of the oxygen (or carbon dioxide) continuous emission monitoring system data.
(e) The 1-hour arithmetic averages must be expressed in parts per million by volume ~~corrected to 7 percent oxygen~~ (dry basis) and used to calculate the 24-hour daily arithmetic average concentrations. The 1-hour arithmetic averages must be calculated using the data points required under 40 CFR 60.13(e)(2).
(f) All valid continuous emission monitoring system data must be used in calculating emission averages even if the minimum continuous emission monitoring system data requirements of subsection (8)(d) of this rule are not met.
(g) The owner or operator of an affected facility must operate the continuous emission monitoring system according to **Performance Specification 2** in **Appendix B** of **40 CFR 60** and must follow the procedures and methods specified in paragraphs (8)(g)(A) and (B) of this rule~~as follows:~~.
(A) During each relative accuracy test run of the continuous emission monitoring system required by **Performance Specification 2** in **Appendix B** of **40 CFR 60**, nitrogen oxides and oxygen (or carbon dioxide) must be collected concurrently (or within a 30- to 60-minute period) by both the continuous emission monitors and the test methods specified ~~as follows:~~in subparagraphs (8)(g)(A)(i) and (ii) of this rule.
(i) For nitrogen oxides, **EPA Reference Methods 7**, **7A**, **7C**, **7D**, or **7E** must be used.~~; and,~~
(ii) ~~f~~For oxygen (or carbon dioxide), **EPA Reference Method 3**, **3A**, or **3B**, or as an alternative **ASME PTC-19-10-1981-Part 10**, as applicable, must be used.
(B) The span value of the continuous emission monitoring system must be~~is~~ 125 percent of the maximum estimated hourly potential nitrogen oxide emissions of the municipal waste combustor unit.
(h) Quarterly accuracy determinations and daily calibration drift tests must be performed in accordance with ~~p~~**Procedure 1** in **Appendix F of 40 CFR Part 60**.
(i) When nitrogen oxides continuous emissions data are not obtained because of continuous emission monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, emissions data must be obtained using other monitoring systems as approved by the Department or **EPA Reference Method 19** to provide, as necessary, valid emissions data for a minimum of 90~~75~~ percent of the hours per ~~day~~calendar quarter and ~~for~~ 95~~0~~ percent of the ~~days~~hours per calendar ~~quarter~~year the unit is operated and combusting municipal solid waste.
~~(9) The procedures specified below must be used for determining compliance with the opacity limit for air curtain incinerators.~~
~~(a) **EPA Reference Method 9** must be used to determine compliance with the opacity limit.~~
~~(b) The owner or operator of the air curtain incinerator must conduct an initial performance test for opacity as required by **40 CFR Part 60.8**.~~
~~(c) Following the date that the initial performance test is completed the owner or operator of the air curtain incinerator must conduct a performance test for opacity on an annual basis (no more than 12 calendar months following the previous performance test).~~

(9~~10~~) The procedures specified in subsections (9)(a) through (k) of this rule~~below~~ must be used for determining compliance with the operating requirements under OAR 340-230-0320.
(a) Compliance with the carbon monoxide emission limits in OAR 340-230-0320(1) must be determined using a 4-hour block arithmetic average.
(b~~a~~) The owner or operator of an affected facility must install, calibrate, maintain, and operate a continuous emission monitoring system for measuring carbon monoxide at the combustor outlet and record the output of the system ~~in accordance with **40 CFR 60.13**~~ and must ~~the~~ follow~~ing~~ the procedures and methods specified in paragraphs (9)(a)(A) through (C) of this rule:
~~(A) Compliance with the carbon monoxide emission limits must be determined using a 4-hour block arithmetic average.~~
~~(B) The owner or operator of an affected facility must install, calibrate, maintain, and operate a continuous emission monitoring system for measuring carbon monoxide at the combustor outlet and record the output of the system following the procedures below.~~
(A~~i~~) The continuous emission monitoring system must be operated according to **Performance Specification 4A** in **Appendix B** of **40 CFR 60**~~**, Appendix B**~~.
(B~~ii~~) During each relative accuracy test run of the continuous emission monitoring system required by **Performance Specification 4A** in **Appendix B** of **40 CFR Part 60**, carbon monoxide and oxygen (or carbon dioxide) data must be collected concurrently (or within a 30- to 60-minute period) by both the continuous emission monitors and the test methods specified ~~as follows~~in subparagraphs (9)(b)(B)(i) and (ii) of this rule.~~:~~ For affected facilities subject to the 100 parts per million dry volume carbon monoxide standard, the relative accuracy criterion of 5 parts per million dry volume is calculated as the absolute value of the mean difference between the reference method and continuous emission monitoring systems.
(i) ~~-~~For carbon monoxide, **EPA Reference Methods 10**, **10A**, or **10B** must be used.~~; and,~~
(ii) F~~f~~or oxygen (or carbon dioxide), **EPA Reference Method 3**, **3A**, or **3B**, or **ASME PTC-19-10-1981--Part 10** (incorporated by reference, see **40 CFR 60.17**), as applicable, must be used.
(C~~iii~~) The span value of the continuous emission monitoring system must be 125 percent of the maximum estimated hourly potential carbon monoxide emissions of the municipal waste combustor unit.
(c~~E~~) The 4-hour block ~~and 24-hour~~ daily arithmetic averages specified in subsection (9)(a) of this rule must be calculated from 1-hour arithmetic averages expressed in parts per million by volume corrected to 7 percent oxygen (dry basis). The 1-hour arithmetic averages must be calculated using the data points generated by the continuous emission monitoring system. At least two data points~~, separated by at least 15 minutes, per hour~~ must be used to calculate each 1-hour arithmetic average.
(d~~F~~) The~~An~~ owner or operator of an affected facility may request that compliance with the carbon monoxide emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility must be established as specified in subsection ~~OAR 340-230-0340~~(2)(e) of this rule.
~~(G) At a minimum, valid continuous emission monitoring system hourly averages must be obtained for 75 percent of the hours per day for 90 percent of the operating days per calendar quarter that the affected facility is combusting municipal solid waste.~~
~~(H) All valid continuous emission monitoring system data must be used in calculating carbon monoxide emission even if the minimum data requirements are not met.~~

~~(I) Quarterly accuracy determinations and daily calibration drift tests for the carbon monoxide continuous emission monitoring system must be performed in accordance with procedure 1 of 40 CFR 60, Appendix F (2002).~~

(e~~b~~) The procedures specified in paragraphs (9)(e)(A) through (D) of this rule~~below~~ must be used ~~by the owner or operator~~ to determine compliance with load level requirements under OAR 340-230-0320(2).

(A) The owner or operator of an affected facility with steam generation capability must install, calibrate, maintain, and operate a steam flow meter or a feedwater flow meter; measure steam (or feedwater) flow in kilograms per hour (or pounds per hour) on a continuous basis; and record the output of the monitor. Steam (or feedwater) flow must be calculated in 4-hour block arithmetic averages.

(B) The method included in the "**American Society of Mechanical Engineers Power Test Codes: Test Code for Steam Generating Units, Power Test Code 4.1 -- 1964 (R1991)**" section 4 (incorporated by reference, see **40 CFR 60.17**) must be used for calculating the steam (or feedwater) flow required under paragraph (9)(c)(A) of this rule. The recommendations in "**American Society of Mechanical Engineers Interim Supplement 19.5 on Instruments and Apparatus: Application, Part II of Fluid Meters, 6th edition (1971)**," chapter 4 (incorporated by reference -- see **40 CFR 60.17~~(h)(3)~~**) must be followed for design, construction, installation, calibration, and use of nozzles and orifices except as specified ~~below~~ in paragraph (9)(e)(C) of this rule:

(C~~i~~) Measurement devices such as flow nozzles and orifices are not required to be recalibrated after they are installed.

(D~~ii~~) All signal conversion elements associated with steam (or feedwater flow) measurements must be calibrated according to the manufacturer's instructions before each dioxin/furan performance test, and at least once per year.

~~(C) The owner or operator of an affected facility without steam generation capability is not required to monitor unit load.~~

~~(D) The maximum demonstrated municipal waste combustor unit load must be the highest 4-hour arithmetic average load achieved during four consecutive hours during the most recent test during which compliance with the dioxin/furan emission limit was achieved.~~

(f~~e~~) To determine compliance with the maximum particulate matter control device temperature requirements under OAR 340-230-0320(3), the owner or operator of an affected facility must install, calibrate, maintain, and operate a device for measuring on a continuous basis the temperature of the flue gas stream at the inlet to each particulate matter control device utilized by the affected facility.

~~(A)~~ Temperature must be calculated in 4-hour block arithmetic averages.

(g) The maximum demonstrated municipal waste combustor unit load must be determined during the initial performance test for dioxins/furans and each subsequent performance test during which compliance with the dioxin/furan emission limit specified in OAR 340-230-0310(6) is achieved. The maximum demonstrated municipal waste combustor unit load shall be the highest 4-hour arithmetic average load achieved during four consecutive hours during the most recent test during which compliance with the dioxin/furan emission limit was achieved. If a subsequent dioxin/furan performance test is being performed on only one affected facility at the MWC plant, as provided in paragraph (7)(d)(C) of this rule, the owner or operator may elect to apply the same

maximum municipal waste combustor unit load from the tested facility for all the similarly designed and operated affected facilities at the MWC plant.
(h~~B~~) For each particulate matter control device employed at the affected facility, the maximum demonstrated particulate matter control device temperature must be determined during each performance test during which compliance with the dioxin/furan emission limit specified in OAR 340-230-0310(6) is achieved. The maximum demonstrated particulate matter control device temperature shall be the highest 4-hour arithmetic average temperature achieved at the particulate matter control device inlet during four consecutive hours during the most recent test during which compliance with the dioxin/furan limit was achieved. If a subsequent dioxin/furan performance test is being performed on only one affected facility at the MWC plant, as provided in paragraph (7)(d)(C) of this rule, the owner or operator may elect to apply the same maximum particulate matter control device temperature from the tested facility for all the similarly designed and operated affected facilities at the MWC plant.
(i~~d~~) At a minimum, valid continuous emission ~~load level and control device inlet temperature~~ monitoring system hourly averages must be obtained as specified in paragraphs (9)(i)(A) and (B) of this rule for at least 90~~75~~ percent of the operating hours per ~~day~~calendar quarter and~~for~~ 95~~0~~ percent of the operating ~~days~~hours per calendar ~~quarter~~year that the affected facility is combusting municipal solid waste.
(A) At least two data points~~, separated by at least 15 minutes,~~ per hour must be used to calculate each 1-hour arithmetic average.
(B) At a minimum, each carbon monoxide 1-hour arithmetic must be corrected to 7-percent oxygen on an hourly basis using the 1-hour arithmetic average of the oxygen (or carbon dioxide) continuous emission monitoring system data.
(j~~B~~) All valid continuous emission monitoring system data must be used in calculating the parameters specified under ~~OAR 340-230-0340(9)~~ section (9) of this rule even if the minimum data requirements of subsection (9)(i) of this rule are not met. When carbon monoxide continuous emission data are not obtained because of continuous emission monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, emissions data must be obtained using other monitoring systems as approved by the Department or **EPA Reference Method 10** to provide, as necessary, the minimum valid emission data.
(k) Quarterly accuracy determinations and daily calibration drift tests for the carbon monoxide continuous emission monitoring system must be performed in accordance with **Procedure 1 in appendix F** of **40 CFR part 60**.
(10~~11~~) The procedures specified in subsections (10)(a) an (b) of this rule~~below~~ must be used for calculating municipal waste combustor unit capacity as defined by **40 CFR 60.51b**~~-~~.
(a) For municipal waste combustor units capable of combusting municipal solid waste continuously for a 24-hour period, municipal waste combustor unit capacity~~, in megagrams per day of municipal solid waste combusted,~~ must be calculated based on 24 hours of operation at the maximum charging rate. The maximum charging rate must be determined ~~by one of the following procedures~~as specified in paragraphs (10)(a)(A) and (B) of this rule, as applicable:
(A) For combustors that are designed based on heat capacity, the maximum charging rate must be calculated based on the maximum design heat input capacity of the unit and a heating value of 12,800 kilojoules per kilogram for combustors firing refuse-derived fuel and a heating value of 10,500 kilojoules per kilogram for combustors firing municipal solid waste that is not refuse-derived fuel.

(B) For combustors that are not designed based on heat capacity, the maximum charging rate shall be~~is~~ the maximum design charging rate.
(b) For batch feed municipal waste combustor units, municipal waste combustor unit capacity~~, in megagrams per day of municipal solid waste combusted,~~ must be calculated as the maximum design amount of municipal solid waste that can be charged per batch multiplied by the maximum number of batches that could be processed in a 24-hour period. The maximum number of batches that could be processed in a 24-hour period is calculated as 24 hours divided by the design number of hours required to process one batch of municipal solid waste, and may include fractional batches (e.g., if one batch requires 16 hours, then 24/16, or 1.5 batches, could be combusted in a 24-hour period). For batch combustors that are designed based on heat capacity, the design heating value of 12,800 kilojoules per kilogram for combustors firing refuse-derived fuel and a heating value of 10,500 kilojoules per kilogram for combustors firing municipal solid waste that is not refuse-derived fuel must be used in calculating the municipal waste combustor unit capacity in megagrams per day of municipal solid waste.
(11~~12~~) The procedures specified in subsections (11)(a) through (c) of this rule ~~below~~ must be used for determining compliance with the fugitive ash emission limit under OAR 340-0230-0335.
(a) **EPA Reference Method 22** must be used for determining compliance with the fugitive ash emission limit under OAR 340-0230-0335. The minimum observation time must be a series of three 1-hour observations. The observation period must include times when the facility is transferring ash from the municipal waste combustor unit to the area where ash is stored or loaded into containers or trucks.
(b) The average duration of visible emissions per hour must be calculated from the three 1-hour observations. The ~~Department will use the~~ average must be used to determine compliance with OAR 340-0230-0335.
(c) The owner or operator of an affected facility must conduct a performance test for fugitive ash emissions on a~~n annual~~ calendar year basis (no ~~more~~less than 9~~12~~ calendar months and no more than 15 months following the previous performance test~~s~~; and must complete five performance tests in each 5-year period).
(12~~13~~) The owner or operator of an affected facility where activated carbon injection is used to comply with the mercury emission limit under OAR 340-230-0310(3)(c), ~~or~~ the dioxin/furan emission limits under OAR 340-230-0310(6), or the dioxin/furan emission level specified in paragraph ~~OAR 340-230-0340~~(7)(d)(C) of this rule must follow the procedures specified ~~below:~~in subsections (12)(a) through (d) of this rule.
(a) During ~~any~~the performance tests for dioxins/furans and mercury, as applicable, the owner or operator must estimate an average carbon mass feed rate based on carbon injection system operating parameters such as the screw feeder speed, hopper volume, hopper refill frequency, or other parameters appropriate to the feed system being employed, as specified ~~below~~ in paragraphs (12)(a)(A) and (B) of this rule.~~:~~
(A) An average carbon mass feed rate in kilograms per hour or pounds per hour must be estimated during each performance test for mercury emissions.
(B) An average carbon mass feed rate in kilograms per hour or pounds per hour must be estimated during each performance test for dioxin/furan emissions, if applicable. If a subsequent dioxin/furan performance test is being performed on only one affected facility at the MWC plant, as provided in paragraph (7)(d)(C) of this rule, the owner or operator may elect to apply the same

estimated average carbon mass feed rate from the tested facility for all the similarly designed and operated affected facilities at the MWC plant.
(b) During operation of the affected facility, the carbon injection system operating parameter(s) that are the primary indicator(s) of the carbon mass feed rate (e.g., screw feeder setting) must be averaged over a block 8-hour period, and the 8-hour average must equal or exceed the level(s) documented during the performance tests specified under paragraphs (12)(a)(A) and~~or~~ (B) of this rule~~section~~, except as specified in paragraphs (12)(b)(A) and (B) of this rule.
(A) During the annual dioxin/furan or mercury performance test and the 2 weeks preceding the annual dioxin/furan or mercury performance test, no limit is applicable for average mass carbon feed rate if the provisions of paragraph (12)(b)(B) of this rule are met.
(B) The limit for average mass carbon feed rate may be waived in accordance with permission granted by the Administrator for the purpose of evaluating system performance, testing new technology or control technologies, diagnostic testing, or related activities for the purpose of improving facility performance or advancing the state-of-the-art for controlling facility emissions.
(c) The owner or operator must estimate the total carbon usage of the plant (kilograms or pounds) for each calendar quarter by two independent methods, according to the procedures in paragraphs (12)(c)(A) and (B) of this rule.~~specified below:~~
(A) The weight of carbon delivered to the plant.
(B) Estimate the average carbon mass feed rate in kilograms per hour or pounds per hour for each hour of operation for each affected facility based on the parameters specified under subsection (12)(a) of this rule~~section~~, and sum the results for all affected facilities at the plant for the total number of hours of operation during the calendar quarter.
(d) Pneumatic injection pressure or other carbon injection system operational indicator must be used to provide additional verification of proper carbon injection system operation. The operational indicator must provide an instantaneous visual and/or audible alarm to alert the operator of a potential interruption in the carbon feed that would not normally be indicated by direct monitoring of carbon mass feed rate (e.g., continuous weight loss feeder) or monitoring of the carbon system operating parameter(s) that are the indicator(s) of carbon mass feed rate (e.g., screw feeder speed). The carbon injection system operational indicator used to provide additional verification of carbon injection system operation, including basis for selecting the indicator and operator response to the indicator alarm, must be included in subsection (5)(f) of this rule of the site-specific operating manual required under OAR 340-230-0330(4).
(13) In place of periodic manual testing of mercury, cadmium, lead, or hydrogen chloride with **EPA Reference Method 26**, **26A**, **29**, or as an alternative **ASTM D6784-02** (as applicable), affected facilities may elect to install, calibrate, maintain, and operate a continuous emission monitoring system for monitoring emissions discharged to the atmosphere and record the output of the system. The option to use a continuous emission monitoring system for mercury takes effect on the date of approval of the site-specific monitoring plan required in subsection (13)(m) of this rule and section (14) of this rule. The option to use a continuous emission monitoring system for cadmium, lead, or hydrogen chloride takes effect on the date a final performance specification applicable to cadmium, lead, or hydrogen chloride monitor is published in the Federal Register or the date of approval of the site-specific monitoring plan required in subsection (13)(m) of this rule and section (14) of this rule. The owner or operator of an affected facility who elects to continuously monitor emissions instead of conducting manual performance

testing must install, calibrate, maintain, and operate a continuous emission monitoring system and must comply with the requirements in subsections (13)(a) through (n) of this rule.
(a) Notify the Administrator and the Department one month before starting use of the system.
(b) Notify the Administrator and the Department one month before stopping use of the system.
(c) The monitor must be installed, evaluated, and operated in accordance with **40 CFR 60.13**.
(d) The initial performance evaluation must be completed no later than 180 days after the date of initial startup of the affected facility, as specified under **40 CFR 60.8** or within 180 days of notification to the Administrator and the Department of use of the continuous monitoring system if the owner or operator was previously determining compliance by **EPA Reference Method 26, 26A**, **29**, or as an alternative **ASTM D6784-02** (as applicable) performance tests, whichever is later.
(e) The owner or operator may request that compliance with the emission limits be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility must be established as specified in subsection (2)(e) of this rule.
(f) The owner or operator must conduct an initial performance test for emissions as required under **40 CFR 60.8**. Compliance with the emission limits must be determined by using the continuous emission monitoring system specified in section (13) of this rule to measure emissions and calculating a 24-hour block arithmetic average emission concentration using **EPA Reference Method 19**, section 12.4.1.
(g) Compliance with the emission limits must be determined based on the 24-hour daily (block) average of the hourly arithmetic average emission concentrations using continuous emission monitoring system outlet data.
(h) Beginning on April 28, 2008 for mercury and on the date two years after final performance specifications for cadmium, lead or hydrogen chloride monitors are published in the Federal Register or the date two years after approval of a site-specific monitoring plan, valid continuous monitoring system hourly averages must be obtained as specified in paragraphs (13)(h)(A) and (B) of this rule for at least 90 percent of the operating hours per calendar quarter and 95 percent of the operating hours per calendar year that the affected facility is combusting municipal solid waste.
(A) At least two data points per hour must be used to calculate each 1-hour arithmetic average.
(B) Each 1-hour arithmetic average must be corrected to 7 percent oxygen on an hourly basis using the 1-hour arithmetic average of the oxygen (or carbon dioxide) continuous emission monitoring system data.
(i) The 1-hour arithmetic averages required under subsection (13)(g) of this rule must be expressed in micrograms per dry standard cubic meter for mercury, cadmium, lead and parts per million dry volume for hydrogen chloride corrected to 7 percent oxygen (dry basis) and must be used to calculate the 24-hour daily arithmetic (block) average emission concentrations. The 1-hour arithmetic averages must be calculated using the data points required under **40 CFR 60.13(e)(2)**.
(j) All valid continuous emission monitoring system data must be used in calculating average emission concentrations even if the minimum continuous emission monitoring system data requirements of subsection (13)(h) of this rule are not met.

(k) The continuous emission monitoring system for mercury must be operated according to **Performance Specification 12A** in **40 CFR part 60 appendix B** or the approved site-specific monitoring plan.

(l) During each relative accuracy test run of the continuous emission monitoring system required by the performance specifications in subsection (13)(k) of this rule, mercury, cadmium, lead, hydrogen chloride, and oxygen (or carbon dioxide) data must be collected concurrently (or within a 30- to 60-minute period) by both the continuous emission monitors and the test methods specified in paragraphs (13)(l)(A) through (C) of this rule.

(A) For mercury, cadmium, and lead, **EPA Reference Method 29** or as an alternative **ASTM D6784-02** must be used.

(B) For hydrogen chloride, **EPA Reference Method 26** or **26A** must be used.

(C) For oxygen (or carbon dioxide), **EPA Reference Method 3**, **3A**, or **3B**, as applicable must be used.

(m) The owner or operator who elects to install, calibrate, maintain, and operate a continuous emission monitoring system for mercury, cadmium, lead, or hydrogen chloride must develop and implement a site-specific monitoring plan as specified in section (14) of this rule. The owner or operator who relies on a performance specification may refer to that document in addressing applicable procedures and criteria.

(n) When emissions data are not obtained because of continuous emission monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, parametric monitoring data must be obtained by using other monitoring systems as approved by EPA.

(14) The owner or operator who elects to install, calibrate, maintain, and operate a continuous emission monitoring system for mercury, cadmium, lead, or hydrogen chloride must develop and submit for approval by EPA, a site-specific mercury, cadmium, lead, or hydrogen chloride monitoring plan that addresses the elements and requirements in subsections (14)(a) through (g) of this rule.

(a) Installation of the continuous emission monitoring system sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions (e.g., on or downstream of the last control device).

(b) Performance and equipment specifications for the sample interface, the pollutant concentration analyzer, and the data collection and reduction system.

(c) Performance evaluation procedures and acceptance criteria (e.g., calibrations).

(d) Provisions for periods when the continuous emission monitoring system is out of control as described in paragraphs (14)(d)(A) through (C) of this rule.

(A) A continuous emission monitoring system is out of control if either of the conditions in subparagraph (14)(d)(A)(i) or (ii) of this rule are met.

(i) The zero (low-level), mid-level (if applicable), or high-level calibration drift exceeds two times the applicable calibration drift specification in the applicable performance specification or in the relevant standard; or

(ii) The continuous emission monitoring system fails a performance test audit (e.g., cylinder gas audit), relative accuracy audit, relative accuracy test audit, or linearity test audit.

(B) When the continuous emission monitoring system is out of control as defined in paragraph (14)(d)(A) of this rule, the owner or operator of the affected source must take the necessary corrective action and must repeat all necessary tests that indicate that the system is out of control.

The owner or operator must take corrective action and conduct retesting until the performance requirements are below the applicable limits. The beginning of the out-of-control period is the hour the owner or operator conducts a performance check (e.g., calibration drift) that indicates an exceedance of the performance requirements established under this part. The end of the out-of-control period is the hour following the completion of corrective action and successful demonstration that the system is within the allowable limits. During the period the continuous emission monitoring system is out of control, recorded data shall not be used in data averages and calculations or to meet any data availability requirements in subsection (13)(h) of this rule.

(C) The owner or operator of a continuous emission monitoring system that is out of control as defined in subsection (14)(d) of this rule must submit all information concerning out-of-control periods, including start and end dates and hours and descriptions of corrective actions taken in the annual or semiannual compliance reports required in OAR 340-230-0350(3) or (4).

(e) Ongoing data quality assurance procedures for continuous emission monitoring systems as described in paragraphs (14)(e)(A) and (B) of this rule.

(A) Develop and implement a continuous emission monitoring system quality control program. As part of the quality control program, the owner or operator must develop and submit to EPA for approval, upon request, a site-specific performance evaluation test plan for the continuous emission monitoring system performance evaluation required in paragraph (14)(e)(B) of this rule. In addition, each quality control program must include, at a minimum, a written protocol that describes procedures for each of the operations described in subparagraphs (14)(e)(A)(i) through (vi) of this rule.

(i) Initial and any subsequent calibration of the continuous emission monitoring system;

(ii) Determination and adjustment of the calibration drift of the continuous emission monitoring system;

(iii) Preventive maintenance of the continuous emission monitoring system, including spare parts inventory;

(iv) Data recording, calculations, and reporting;

(v) Accuracy audit procedures, including sampling and analysis methods; and

(vi) Program of corrective action for a malfunctioning continuous emission monitoring system.

(B) The performance evaluation test plan must include the evaluation program objectives, an evaluation program summary, the performance evaluation schedule, data quality objectives, and both an internal and external quality assurance program. Data quality objectives are the pre-evaluation expectations of precision, accuracy, and completeness of data. The internal quality assurance program must include, at a minimum, the activities planned by routine operators and analysts to provide an assessment of continuous emission monitoring system performance, for example, plans for relative accuracy testing using the appropriate reference method. The external quality assurance program must include, at a minimum, systems audits that include the opportunity for on-site evaluation by the Administrator or the Department of instrument calibration, data validation, sample logging, and documentation of quality control data and field maintenance activities.

(f) Conduct a performance evaluation of each continuous emission monitoring system in accordance with the site-specific monitoring plan.

(g) Operate and maintain the continuous emission monitoring system in continuous operation according to the site-specific monitoring plan.

(15) In place of periodic manual testing of dioxin/furan or mercury with **EPA Reference Method 23**, **29**, or as an alternative **ASTM D6784-02** (as applicable), the owner or operator of an affected facility may elect to install, calibrate, maintain, and operate a continuous automated sampling system for determining emissions discharged to the atmosphere. This option takes effect on the date a final performance specification applicable to such continuous automated sampling systems is published in the Federal Register or the date of approval of a site-specific monitoring plan. The owner or operator of an affected facility who elects to use a continuous automated sampling system to determine emissions instead of conducting manual performance testing must install, calibrate, maintain, and operate the sampling system and conduct analyses in compliance with the requirements specified in subsections (15)(a) through (k) of this rule.

(a) Notify the Administrator and the Department one month before starting use of the system.

(b) Notify the Administrator and the Department one month before stopping use of the system.

(c) The initial performance evaluation must be completed within 180 days of notification to the Administrator and the Department of use of the continuous monitoring system if the owner or operator was previously determining compliance by manual performance testing using Method 23, 29, or as an alternative **ASTM D6784-02** (as applicable), whichever is later.

(d) The owner or operator may request that compliance with the emission limits be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility must be established as specified in subsection (2)(e) of this rule.

(e) The owner or operator must conduct an initial performance test for emissions as required under **40 CFR 60.8**. Compliance with the emission limits must be determined by using the continuous automated sampling system specified in section (15) of this rule to collect integrated samples and analyze emissions for the time period specified in paragraphs (15)(e)(A) and (B) of this rule.

(A) For dioxin/furan, the continuous automated sampling system must collect an integrated sample over each 2-week period. The collected sample must be analyzed using **EPA Reference Method 23**.

(B) For mercury, the continuous automated sampling system must collect an integrated sample over each 24-hour daily period and the sample must be analyzed according to the applicable final performance specification or the approved site-specific monitoring plan required by section (16) of this rule.

(f) Compliance with the emission limits must be determined based on 2-week emission concentrations for dioxin/furan and on the 24-hour daily emission concentrations for mercury using samples collected at the system outlet. The emission concentrations must be expressed in nanograms per dry standard cubic meter (total mass) for dioxin/furan and micrograms per dry standard cubic meter for mercury, corrected to 7 percent oxygen (dry basis).

(g) Beginning on the date two years after the respective final performance specification for continuous automated sampling systems for dioxin/furan or mercury is published in the **Federal Register** or two years after approval of a site-specific monitoring plan, the continuous automated sampling system must be operated and collect emissions for at least 90 percent of the operating hours per calendar quarter and 95 percent of the operating hours per calendar year that the affected facility is combusting municipal solid waste.

(h) All valid data must be used in calculating emission concentrations.

(i) The continuous automated sampling system must be operated according to the final performance specification or the approved site-specific monitoring plan.
(j) The owner or operator who elects to install, calibrate, maintain, and operate a continuous automated sampling system for dioxin/furan or mercury must develop and implement a site-specific monitoring plan as specified in section (16) of this rule. The owner or operator who relies on a performance specification may refer to that document in addressing applicable procedures and criteria.
(k) When emissions data are not obtained because of continuous automated sampling system breakdowns, repairs, quality assurance checks, or adjustments, parametric monitoring data must be obtained by using other monitoring systems as approved by EPA.
(16) The owner or operator who elects to install, calibrate, maintain, and operate a continuous automated sampling system for dioxin/furan or mercury must develop and submit for approval by EPA, a site-specific monitoring plan that has sufficient detail to assure the validity of the continuous automated sampling system data and that addresses the elements and requirements in subsections (16)(a) through (g) of this rule.
(a) Installation of the continuous automated sampling system sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions (e.g., on or downstream of the last control device).
(b) Performance and equipment specifications for the sample interface, the pollutant concentration analytical method, and the data collection system.
(c) Performance evaluation procedures and acceptance criteria.
(d) Provisions for periods when the continuous automated sampling system is malfunctioning or is out of control as described in paragraphs (16)(d)(A) through (C) of this rule.
(A) The site-specific monitoring plan must identify criteria for determining that the continuous automated sampling system is out of control. This includes periods when the sampling system is not collecting a representative sample or is malfunctioning, or when the analytical method does not meet site-specific quality criteria established in subsection (16)(e) of this rule.
(B) When the continuous automated sampling system is out of control as defined in paragraph (16)(d)(A) of this rule, the owner or operator must take the necessary corrective action and must repeat all necessary tests that indicate that the system is out of control. The owner or operator must take corrective action and conduct retesting until the performance requirements are within the applicable limits. The out-of-control period includes all hours that the sampling system was not collecting a representative sample or was malfunctioning, or hours represented by a sample for which the analysis did not meet the relevant quality criteria. Emissions data obtained during an out-of-control period shall not be used in determining compliance with the emission limits or to meet any data availability requirements in subsection (15)(h) of this rule.
(C) The owner or operator of a continuous automated sampling system that is out of control as defined in subsection (16)(d) of this rule must submit all information concerning out-of-control periods, including start and end dates and hours and descriptions of corrective actions taken in the annual or semiannual compliance reports required in OAR 340-230-0350(3) or (4).
(e) Ongoing data quality assurance procedures for continuous automated sampling systems as described in paragraphs (16)(e)(A) and (B) of this rule.
(A) Develop and implement a continuous automated sampling system and analysis quality control program. As part of the quality control program, affected facilities must develop and

submit to EPA for approval, upon request, a site-specific performance evaluation test plan for the continuous automated sampling system performance evaluation required in paragraph (16)(e)(B) of this rule. In addition, each quality control program must include, at a minimum, a written protocol that describes procedures for each of the operations described in subparagraphs (16)(e)(A)(i) through (vii) of this rule.

(i) Correct placement, installation of the continuous automated sampling system such that the system is collecting a representative sample of gas;

(ii) Initial and subsequent calibration of flow such that the sample collection rate of the continuous automated sampling system is known and verifiable;

(iii) Procedures to assure representative (e.g., proportional or isokinetic) sampling;

(iv) Preventive maintenance of the continuous automated sampling system, including spare parts inventory and procedures for cleaning equipment, replacing sample collection media, or other servicing at the end of each sample collection period;

(v) Data recording and reporting, including an automated indicator and recording device to show when the continuous automated monitoring system is operating and collecting data and when it is not collecting data;

(vi) Accuracy audit procedures for analytical methods; and

(vii) Program of corrective action for a malfunctioning continuous automated sampling system.

(B) The performance evaluation test plan must include the evaluation program objectives, an evaluation program summary, the performance evaluation schedule, data quality objectives, and both an internal and external quality assurance program. Data quality objectives are the pre-evaluation expectations of precision, accuracy, and completeness of data. The internal quality assurance program must include, at a minimum, the activities planned by routine operators and analysts to provide an assessment of continuous automated sampling system performance, for example, plans for relative accuracy testing using the appropriate reference method in subsection (15)(c) of this rule, and an assessment of quality of analysis results. The external quality assurance program must include, at a minimum, systems audits that include the opportunity for on-site evaluation by the Administrator or the Department of instrument calibration, data validation, sample logging, and documentation of quality control data and field maintenance activities.

(f) Conduct a performance evaluation of each continuous automated sampling system in accordance with the site-specific monitoring plan.

(g) Operate and maintain the continuous automated sampling system in continuous operation according to the site-specific monitoring plan.

(17~~14~~) Continuous monitoring for opacity, sulfur dioxide, nitrogen oxides, carbon monoxide,and diluent gases (oxygen or carbon dioxide) must be conducted in accordance with the Department's Continuous Monitoring Manual and the specific requirements of this rule. If at any time there is a conflict between the Department's **Continuous Monitoring Manual** and the federal requirements contained in **40 CFR 60.13**, **Appendix B** and **Appendix F**), the federal requirements must govern.

[Publications: Publications & Equation referenced are available from the agency.]

Stat. Auth.: ORS 468.020

Stats. Implemented: ORS 468A.02

Hist.: DEQ 27-1996, f. & cert. ef. 12-11-96; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-025-0990; DEQ 4-2003, f. & cert. ef. 2-06-03

340-230-0350
Recordkeeping and Reporting

(1) The owner or operator of an affected facility subject to the standards contained in OAR 340-230-0310~~00~~ through 340-230-0335~~0~~ must maintain records of the ~~applicable~~ information specified in subsections (1)(a) through (l) of this rule ~~specified below~~ , as applicable, for each affected facility for a period of at least 5 years. The information must be available for submittal to the Department or for review onsite by an inspector.

(a) The calendar date of each record.

(b) The ~~following~~ emission concentrations and parameters measured using continuous monitoring systems as specified in paragraphs (1)(b)(A) and (B) of this rule:

(A) The measurements specified in subparagraphs (1)(b)(A)(i) through (v) of this rule must be recorded and be available for submittal to the Department or review on-site by Department inspector:

(i~~A~~) All 6-minute average opacity levels as specified under OAR 340-230-0340(3).

(ii~~B~~) All 1-hour average sulfur dioxide emission concentrations as specified under OAR 340-230-0340(5).

(iii~~C~~) All 1-hour average nitrogen oxides emission concentrations as specified under OAR 340-230-0340(8).

(iv~~D~~) All 1-hour average carbon monoxide emission concentrations, municipal waste combustor unit load measurements (if applicable), and particulate matter control device inlet temperatures as specified under OAR 340-230-0340(9).

(v) For owners and operators who elect to continuously monitor particulate matter, cadmium, lead, mercury, or hydrogen chloride emissions instead of conducting performance testing using EPA manual test methods, all 1-hour average particulate matter, cadmium, lead, mercury, or hydrogen chloride emission concentrations as specified under OAR 340-230-0340(13).

(B) The average concentrations and percent reductions, as applicable, specified in subparagraphs (1)(b)(B)(i) through (vi) of this rule must be computed and recorded, and must be available for submittal to the Department or review on-site by Department inspector.

(i~~E~~) All 24-hour daily geometric average sulfur dioxide emission concentrations and all 24-hour daily geometric average percent reductions in sulfur dioxide emissions as specified under OAR 340-230-0340(5).

(ii~~F~~) All 24-hour daily arithmetic average nitrogen oxides emission concentrations as specified under OAR 340-230-0340(8).

(iii~~G~~) All 4-hour block or 24-hour daily arithmetic average carbon monoxide emission concentrations, as applicable, as specified under OAR 340-230-0340(9).

(iv~~H~~) All 4-hour block arithmetic average municipal waste combustor unit load levels (if applicable) and particulate matter control device inlet temperatures as specified under OAR 340-230-0340(9).

(v) For owners and operators who elect to continuously monitor particulate matter, cadmium, lead, mercury, or hydrogen chloride emissions instead of conducting performance testing using EPA manual test methods, all 24-hour daily arithmetic average particulate matter, cadmium, lead, mercury, or hydrogen chloride emission concentrations as specified under OAR 340-230-0340(13).

(vi) For owners and operators who elect to use a continuous automated sampling system to monitor mercury or dioxin/furan instead of conducting performance testing using EPA manual test methods, all integrated 24-hour mercury concentrations or all integrated 2-week dioxin/furan concentrations as specified under OAR 340-230-0340(15).
(c) Identification of the calendar dates when any of the average ~~opacity levels,~~ emission concentrations, percent reductions, or operating parameters recorded under subparagraphs (1)(b)(B)(i) through (vi) of this rule, or the opacity levels recorded under subparagraph (1)(b)(A)(i) of this rule ~~OAR 340-230-0350(1)(b)~~ are above the applicable limits, with reasons for such exceedances and a description of corrective actions taken.
(d) For affected facilities that apply activated carbon for mercury or dioxin/furan control, the records specified in paragraphs (1)(d)(A) through (E) of this rule~~below~~:
(A) The average carbon mass feed rate (in kilograms per hour or pounds per hour) estimated as specified under OAR 340-230-0340(12)(a)(A) during each mercury emissions performance test, with supporting calculations.
(B) The average carbon mass feed rate (in kilograms per hour or pounds per hour) estimated as specified under OAR 340-230-0340(12)(a)(B) during each dioxin/furan emissions performance test, with supporting calculations.
(C) The average carbon mass feed rate (in kilograms per hour or pounds per hour) estimated for each hour of operation as specified under OAR 340-230-0340(12)(c)(B), with supporting calculations.
(D) The total carbon usage for each calendar quarter estimated as specified under OAR 340-230-0340(12)(c), with supporting calculations.
(E) Carbon injection system operating parameter data for the parameter(s) that are the primary indicator(s) of carbon feed rate (e.g., screw feeder speed).
(e) Identification of the calendar dates and times (hours) for which valid hourly ~~the minimum number of hours of any of the~~ data specified ~~below~~ in paragraphs (1)(e)(A) through (F) of this rule have not been obtained, or continuous automated sampling systems were not operated as specified in paragraph (1)(e)(G) of this rule, including reasons for not obtaining the~~sufficient~~ data and a description of corrective actions taken.
(A) Sulfur dioxide emissions data;
(B) Nitrogen oxides emissions data;
(C) Carbon monoxide emissions data;
(D) Municipal waste combustor unit load data;~~ and~~
(E) Particulate matter control device temperature data; and~~.~~
~~(F) For affected facilities that apply activated carbon for mercury or dioxin/furan control, carbon usage and carbon injection system operating parameter data.~~
(F) For owners and operators who elect to continuously monitor particulate matter, cadmium, lead, mercury, or hydrogen chloride emissions instead of performance testing by EPA manual test methods, particulate matter, cadmium, lead, mercury, or hydrogen chloride emissions data.
(G) For owners and operators who elect to use continuous automated sampling systems for dioxins/furans or mercury as allowed under OAR 340-230-0340(15) and (16), dates and times when the sampling systems were not operating or were not collecting a valid sample.
(f) Identification of each occurrence that sulfur dioxide emissions data, nitrogen oxides emissions data, particulate matter emissions data, cadmium emissions data, lead emissions data, mercury emissions data, hydrogen chloride emissions data, or dioxin/furan emissions data (for

owners and operators who elect to continuously monitor particulate matter, cadmium, lead, mercury, or hydrogen chloride, or who elect to use continuous automated sampling systems for dioxin/furan or mercury emissions, instead of conducting performance testing using EPA manual test methods) or operational data (i.e., carbon monoxide emissions, unit load, and particulate matter control device temperature) have been excluded from the calculation of average emission concentrations or parameters, and the reasons for excluding the data.

(g) The results of daily drift tests and quarterly accuracy determinations for sulfur dioxide, nitrogen oxides, and carbon monoxide continuous emission monitoring systems, as required by **40 CFR part 60** ~~**60.13** and **Procedure 1** of **40 CFR 60.13**, **A**~~ **appendix F**, procedure 1.

(h) The test reports documenting the results of the initial performance test and all annual performance tests listed in paragraphs (1)(h)(A) and (B) of this rule must ~~conducted to determine compliance with the particulate matter, opacity, cadmium, lead, mercury, dioxins/furans, hydrogen chloride, and fugitive ash emission limits, including the oxygen/carbon dioxide relationship (if applicable according to OAR 340-230-0340(2)(e))~~ be recorded along with supporting calculations ~~and the following information~~:

(A) The results of the initial performance test and all annual performance tests conducted to determine compliance with the particulate matter, opacity, cadmium, lead, mercury, dioxins/furans, hydrogen chloride, and fugitive ash emission limits.

(B~~A~~) For the initial ~~first~~ dioxin/furan performance test ~~conducted after December 31, 1997~~ and all subsequent dioxin/furan performance tests recorded under paragraph (1)(h)(A) of this rule, the maximum demonstrated municipal waste combustor unit load and maximum demonstrated particulate matter control device temperature (for each particulate matter control device).~~; and~~

~~(B) For affected facilities that apply carbon for mercury or dioxin/furan control, the average carbon injection rate during the first mercury or dioxin/furan performance test conducted after December 31, 1997 and all subsequent mercury or dioxin/furan performance tests.~~

(i) An owner or operator who elects to continuously monitor emissions instead of performance testing by EPA manual methods must maintain records specified in paragraphs (1)(i)(A) through (C) of this rule.

(A) For owners and operators who elect to continuously monitor particulate matter instead of conducting performance testing using EPA manual test methods, as required under **40 CFR part 60 appendix F**, procedure 2, the results of daily drift tests and quarterly accuracy determinations for particulate matter.

(B) For owners and operators who elect to continuously monitor cadmium, lead, mercury, or hydrogen chloride instead of conducting EPA manual test methods, the results of all quality evaluations, such as daily drift tests and periodic accuracy determinations, specified in the approved site-specific performance evaluation test plan required by OAR 340-230-0340(14)(e).

(C) For owners and operators who elect to use continuous automated sampling systems for dioxin/furan or mercury, the results of all quality evaluations specified in the approved site-specific performance evaluation test plan required by OAR 340-230-0340(16)(e).

(j~~i~~) Training records ~~as~~ specified ~~below~~in paragraphs (1)(j)(A) through (D~~E~~) of this rule~~subsection~~.~~:~~

(~~C~~A) Records showing the names of the municipal waste combustor chief facility operator, shift supervisors, and control room operators who have been provisionally certified by the American Society of Mechanical Engineers or an equivalent State-approved certification program as required by OAR 340-230-0330(1), including the dates of initial and renewal certifications and documentation of current certification.

(~~D~~B) Records showing the names of the municipal waste combustor chief facility operator, shift supervisors, and control room operators who have been fully certified by the American Society of Mechanical Engineers or an equivalent State-approved certification program as required by OAR 340-230-0330(2), including the dates of initial and renewal certifications and documentation of current certification.

(~~E~~C) Records showing the names of the municipal waste combustor chief facility operator, shift supervisors, and control room operators who have completed the EPA municipal waste combustor operator training course or a State-approved equivalent course, including documentation of training completion.

(D) Records of when a certified operator is temporarily off site. Include two main items:

(i) If the certified chief facility operator and certified shift supervisor are off site for more than 12 hours, but for 2 weeks or less, and no other certified operator is on site, record the dates that the certified chief facility operator and certified shift supervisor were off site.

(ii) When all certified chief facility operators and certified shift supervisors are off site for more than 2 weeks and no other certified operator is on site, keep records of four items:

(I) Time of day that all certified persons are off site.

(II) The conditions that cause those people to be off site.

(III) The corrective actions taken by owner or operator of the affected facility to ensure a certified chief facility operator or certified shift supervisor is on site as soon as practicable.

(IV) Copies of the written reports submitted every 4 weeks that summarize the actions taken by the owner or operator of the affected facility to ensure that a certified chief facility operator or certified shift supervisor will be on site as soon as practicable.

(k~~F~~) Records showing the names of persons who have completed a review of the operating manual as required by OAR 340-230-0330(5), including the date of the initial review and subsequent annual reviews.

(l~~i~~) For affected facilities that apply activated carbon for mercury or dioxin/furan control:

(A) Identification of the calendar dates when the average carbon mass feed rates were less than either of the hourly carbon feed rates estimated during performance tests for mercury or dioxin/furan emissions with reasons for such feed rates and a description of corrective actions taken.

(B) Identification of the calendar dates when the carbon injection system operating parameter(s) that are the primary indicator(s) of carbon mass feed rate (e.g., screw feeder speed) recorded under OAR 340-230-0340(12)(a)(A) and (B) are below the level(s) estimated during the performance tests, with reasons for such occurrences and a description of corrective actions taken.

~~(j) For affected facilities installing additional controls, records of semi-annual progress reports.~~

(2) The owner or operator of an affected facility must submit the ~~following~~ information specified in subsections (2)(a) through (f) of this rule in a performance test report within 60 days following the completion of each performance test.~~:~~

(a) The performance test data as recorded under subparagraphs (1)(b)(B)(i) through (iv) of this rule for each performance test for sulfur dioxide, nitrogen oxide, carbon monoxide, municipal waste combustor unit load level, and particulate matter control device inlet temperature.

(b~~a~~) The test report documenting the performance test recorded under subsection (1)(h) of this rule for particulate matter, opacity, cadmium, lead, mercury, dioxins/furans, hydrogen chloride, fugitive ash emissions.~~;~~

~~(b) The oxygen/carbon dioxide relationship established in accordance with OAR 340-230-0340(2)(e), if applicable;~~

~~(c) Data as recorded under paragraphs (1)(b)(A) and (1)(b)(E) through (1)(b)(H) of this rule for three consecutive days coinciding with each performance test;~~

(c~~d~~) ~~Unless previously submitted, t~~The performance evaluation of the continuous emission monitoring systems using the applicable performance specifications in **40 CFR 60~~.13~~ ~~A~~appendix B**.~~;~~

(d~~e~~) The maximum demonstrated municipal waste combustor unit load and maximum demonstrated particulate matter control device inlet temperature(s) established during the dioxin/furan performance test.~~;~~

(e~~f~~) For affected facilities that apply activated carbon injection for mercury control, the owner or operator must submit the average carbon mass feed rate recorded during the mercury performance test.~~; and~~

(f~~g~~) For affected facilities that apply activated carbon injection for dioxin/furan control, the owner or operator must submit the average carbon mass feed rate recorded during the dioxin/furan performance test.

(3) The owner or operator of an affected facility must submit semi-annual reports that includes~~ing~~ the ~~following~~ information specified in subsections (3)(a) through (e) of this rule, as applicable, no later than July 30 for the first six months of each calendar year and February 1 for the second six months of each calendar year.

(a) A summary of data collected for all pollutants and parameters regulated under this rule, which includes the ~~following~~ information specified in paragraphs (3)(a)(A) through (E) of this rule:

(A) A list of the particulate matter, opacity, cadmium, lead, mercury, dioxins/furans, hydrogen chloride, and fugitive ash emission levels achieved during any performance tests conducted during the reporting period.

(B) A list of the highest emission level recorded for sulfur dioxide, nitrogen oxides, carbon monoxide, particulate matter, cadmium, lead, mercury, hydrogen chloride, and dioxin/furan (for owners and operators who elect to continuously monitor particulate matter, cadmium, lead, mercury, hydrogen chloride, and dioxin/furan emissions instead of conducting performance testing using EPA manual test methods), municipal waste combustor unit load level, and particulate matter control device inlet temperature based on the data recorded during the reporting period.

(C) List the highest opacity level ~~measured~~measured ~~and~~ based on the data recorded during the reporting period.

(D) Periods when valid ~~The total number of days that the minimum number of hours of data for opacity, sulfur dioxide, nitrogen oxides, carbon monoxide, municipal waste combustor unit load, and particulate matter control device temperature~~ data were not obtained as described in subparagraphs (3)(a)(D)(i) through (iii) of this rule~~based on the data recorded during the reporting period~~.

(i) The total number of hours per calendar quarter and hours per calendar year that valid data for sulfur dioxide, nitrogen oxides, carbon monoxide, municipal waste combustor unit load, or

particulate matter control device temperature data were not obtained based on the data recorded during the reporting period.
(ii) For owners and operators who elect to continuously monitor particulate matter, cadmium, lead, mercury, and hydrogen chloride emissions instead of conducting performance testing using EPA manual test methods, the total number of hours per calendar quarter and hours per calendar year that valid data for particulate matter, cadmium, lead, mercury, and hydrogen chloride were not obtained based on the data recorded during the reporting period. For each continuously monitored pollutant or parameter, the hours of valid emissions data per calendar quarter and per calendar year expressed as a percent of the hours per calendar quarter or year that the affected facility was operating and combusting municipal solid waste.
(iii) For owners and operators who elect to use continuous automated sampling systems for dioxin/furan or mercury, the total number of hours per calendar quarter and hours per calendar year that the sampling systems were not operating or were not collecting a valid sample based on the data recorded during the reporting period. Also, the number of hours during which the continuous automated sampling system was operating and collecting a valid sample as a percent of hours per calendar quarter or year that the affected facility was operating and combusting municipal solid waste.
(E) Periods when valid data ~~The total number of hours that data for opacity, sulfur dioxide, nitrogen oxides, carbon monoxide, municipal waste combustor unit load, and particulate matter control device temperature~~ were excluded from the calculation of average emission concentrations or parameters ~~based on the data recorded during the reporting period.~~ as described subparagraphs (3)(a)(E)(i) through (iii) of this rule.
(i) The total number of hours that data for sulfur dioxide, nitrogen oxides, carbon monoxide, municipal waste combustor unit load, and particulate matter control device temperature were excluded from the calculation of average emission concentrations or parameters based on the data recorded during the reporting period.
(ii) For owners and operators who elect to continuously monitor particulate matter, cadmium, lead, mercury, or hydrogen chloride emissions instead of conducting performance testing using EPA manual test methods, the total number of hours that data for particulate matter, cadmium, lead, mercury, or hydrogen chloride were excluded from the calculation of average emission concentrations or parameters based on the data recorded during the reporting period.
(iii) For owners and operators who elect to use continuous automated sampling systems for dioxin/furan or mercury, the total number of hours that data for mercury and dioxin/furan were excluded from the calculation of average emission concentrations or parameters based on the data recorded during the reporting periods.
(b) The summary of data reported under subsection (3)(a) of this rule~~OAR 340-230-0350(3)(a)~~ must also provide the types of data specified in subsection (3)(a)(A) through (E) of this rule~~OAR 340-230-0350(3)(a)~~ for the calendar year preceding the year being reported, in order to provide the Department with a summary of the performance of the affected facility over a 2-year period.
(c) The summary of data including the information specified in subsections (3)(a) and (b) of this rule~~OAR 340-230-0350(3)(a) and (b)~~ must highlight any emission or parameter levels that did not achieve the emission or parameter limits specified by OAR 340-230-0310 through 340-230-0320.
(d) A notification of intent to begin the reduced dioxin/furan performance testing schedule specified in OAR 340-230-0340(7)(d)(C) during the following calendar year and notification of

intent to apply the average carbon mass feed rate and associated carbon injection system operating parameter levels as established in OAR 340-230-0340(12) to similarly designed and equipped units on site.

(e) Documentation periods when all certified chief facility operators and certified shift supervisors are off site for more than 12 hours.

(4) The owner or operator of an affected facility must submit a semiannual report that includes the ~~following~~ information specified in subsections (4)(a) through (e) of this rule for any recorded pollutant or parameter that does not comply with the pollutant or parameter limit by July 30 for the first six months of each calendar year and February 1 for the second six months of each calendar year.

(a) The semiannual report must include information recorded under subsection (1)(c) of this rule for sulfur dioxide, nitrogen oxides, carbon monoxide, particulate matter, cadmium, lead, mercury, hydrogen chloride, dioxin/furan (for owners and operators who elect to continuously monitor particulate matter, cadmium, lead, mercury, or hydrogen chloride, or that elect to use continuous automated sampling systems for dioxin/furan or mercury emissions, instead of conducting performance testing using EPA manual test methods), municipal waste combustor unit load level, particulate matter control device inlet temperature, and opacity.

(b) For each date recorded under subsection (1)(c) of this rule and reported, as required by subsection (4)(a) of this rule, the semiannual report must include the sulfur dioxide, nitrogen oxides, carbon monoxide, municipal waste combustor unit load level, particulate matter control device inlet temperature, or opacity data, as applicable, ~~and as~~ recorded ~~by~~under subparagraphs (1)(b)(A)(i) and (1)(b)(B~~A~~)(i) through (iv) ~~and (E) through (H)~~ of this rule, as applicable.

(c) If the test reports recorded under subsection (1)(h) of this rule document any particulate matter, opacity, cadmium, lead, mercury, dioxins/ furans, hydrogen chloride, and fugitive ash emission levels that were above the applicable pollutant limits, the semiannual report must include a copy of the test report documenting the emission levels and the corrective actions taken.

(d) The semiannual report must include the information recorded under subparagraph (1)(l~~i~~)(B) of this rule for the carbon injection system operating parameter(s) that are the primary indicator(s) of carbon mass feed rate.

(e) For each operating date reported as required under subsection (4)(d) of this rule, the semiannual report must include the carbon feed rate data recorded under paragraph (1)(d)(C) of this rule.

(5) All reports specified under sections (2) through (4) of this rule~~OAR 340-230-0350(2), (3), and (4)~~ must be submitted as a paper copy, postmarked on or before the submittal dates specified, and maintained onsite as a paper copy for a period of 5 years.

(6) All records specified under section (1) of this rule~~OAR 340-230-0350(1)~~ must be maintained onsite in either paper copy or computer-readable format, unless an alternative format is approved by the Department.

(7) If the~~an~~ owner or operator of an affected facility would prefer to select a different annual or semiannual date for submitting the periodic reports required under paragraphs (3) and (4) of this rule, then the dates may be changed in an Oregon Title V Operating Permit by mutual agreement between the owner or operator and the Department according to the procedures specified in 40 CFR 60.19(c).

(8) Owners and operators who elect to continuously monitor particulate matter, cadmium, lead, mercury, or hydrogen chloride, or who elect to use continuous automated sampling systems for dioxin/furan or mercury emissions, instead of conducting performance testing using EPA manual test methods must notify the Administrator and the Department one month prior to starting or stopping use of the particulate matter, cadmium, lead, mercury, hydrogen chloride, and dioxin/furan continuous emission monitoring systems or continuous automated sampling systems.

(9) Additional recordkeeping and reporting requirements for affected facilities with continuous cadmium, lead, mercury, or hydrogen chloride monitoring systems. In addition to complying with the requirements specified in sections (1) through (8) of this rule, the owner or operator of an affected source who elects to install a continuous emission monitoring system for cadmium, lead, mercury, or hydrogen chloride as specified in OAR 340-230-0340(13), must maintain the records in subsections (9)(a) through (j) of this rule and report the information in subsections (9)(k) and (l) of this rule, relevant to the continuous emission monitoring system:

(a) All required continuous emission monitoring measurements (including monitoring data recorded during unavoidable continuous emission monitoring system breakdowns and out-of-control periods).

(b) The date and time identifying each period during which the continuous emission monitoring system was inoperative except for zero (low-level) and high-level checks.

(c) The date and time identifying each period during which the continuous emission monitoring system was out of control, as defined in OAR 340-230-0340(14)(d).

(d) The specific identification (i.e., the date and time of commencement and completion) of each period of excess emissions and parameter monitoring exceedances, as defined in the standard, that occurs during startups, shutdowns, and malfunctions of the affected source.

(e) The specific identification (i.e., the date and time of commencement and completion) of each time period of excess emissions and parameter monitoring exceedances, as defined in the standard, that occurs during periods other than startups, shutdowns, and malfunctions of the affected source;

(f) The nature and cause of any malfunction (if known).

(g) The corrective action taken to correct any malfunction or preventive measures adopted to prevent further malfunctions.

(h) The nature of the repairs or adjustments to the continuous emission monitoring system that was inoperative or out of control.

(i) All procedures that are part of a quality control program developed and implemented for the continuous emission monitoring system under OAR 340-230-0340(14).

(j) When more than one continuous emission monitoring system is used to measure the emissions from one affected source (e.g., multiple breechings, multiple outlets), the owner or operator must report the results as required for each continuous emission monitoring system.

(k) Submit to the Department for approval, the site-specific monitoring plan required by OAR 340-230-0340(13)(m) and (14), including the site-specific performance evaluation test plan for the continuous emission monitoring system required by OAR 340-230-0340(14)(e). The owner or operator must maintain copies of the site-specific monitoring plan on record for the life of the affected source to be made available for inspection, upon request, by the Department. If the site-specific monitoring plan is revised and approved, the owner or operator must keep previous (i.e.,

superseded) versions of the plan on record to be made available for inspection, upon request, by the Department, for a period of 5 years after each revision to the plan.
(l) Submit information concerning all out-of-control periods for each continuous emission monitoring system, including start and end dates and hours and descriptions of corrective actions taken, in the annual or semiannual report required in sections (3) or (4) of this rule.
(10) Additional recordkeeping and reporting requirements for affected facilities with continuous automated sampling systems for dioxin/furan or mercury monitoring. In addition to complying with the requirements specified in sections (1) through (8) of this rule, the owner or operator of an affected facility who elects to install a continuous automated sampling system for dioxin/furan or mercury, as specified in OAR 340-230-0340(16), must maintain the records in subsections (10)(a) through (j) of this rule and report the information in subsections (10)(k) and (l) of this rule, relevant to the continuous automated sampling system:
(a) All required 24-hour integrated mercury concentration or 2-week integrated dioxin/furan concentration data (including any data obtained during unavoidable system breakdowns and out-of-control periods);
(b) The date and time identifying each period during which the continuous automated sampling system was inoperative;
(c) The date and time identifying each period during which the continuous automated sampling system was out of control, as defined in OAR 340-230-0340(16)(d);
(d) The specific identification (i.e., the date and time of commencement and completion) of each period of excess emissions and parameter monitoring exceedances, as defined in the standard, that occurs during startups, shutdowns, and malfunctions of the affected source;
(e) The specific identification (i.e., the date and time of commencement and completion) of each time period of excess emissions and parameter monitoring exceedances, as defined in the standard, that occurs during periods other than startups, shutdowns, and malfunctions of the affected source;
(f) The nature and cause of any malfunction (if known);
(g) The corrective action taken to correct any malfunction or preventive measures adopted to prevent further malfunctions;
(h) The nature of the repairs or adjustments to the continuous automated sampling system that was inoperative or out of control;
(i) All procedures that are part of a quality control program developed and implemented for the continuous automated sampling system under OAR 340-230-0340(16);
(j) When more than one continuous automated sampling system is used to measure the emissions from one affected source (e.g., multiple breechings, multiple outlets), the owner or operator must report the results as required for each system.
(k) Submit to the Department for approval, the site-specific monitoring plan required by OAR 340-230-0340(15)(k) and (16) including the site-specific performance evaluation test plan for the continuous emission monitoring system required by OAR 340-230-0340(16)(e). The owner or operator must maintain copies of the site-specific monitoring plan on record for the life of the affected source to be made available for inspection, upon request, by the Department. If the site-specific monitoring plan is revised and approved, the owner or operator must keep previous (i.e., superseded) versions of the plan on record to be made available for inspection, upon request, by the Department, for a period of 5 years after each revision to the plan.

(l) Submit information concerning all out-of-control periods for each continuous automated sampling system, including start and end dates and hours and descriptions of corrective actions taken in the annual or semiannual reports required in sections (3) or (4) of this rule.
(11~~8~~) For affected facilities installing additional controls, the owner or operator must submit to the Department semi-annual progress reports on July 30 for the first six months of each calendar year and February 1 for the second six months of each calendar year..
(12~~9~~) The owner or operator of an affected facility subject to OAR 340-230-0300 through 340-230-0350 must maintain records of and submit the following information with any Notice of Construction required by OAR 340-210-0200 through 340-210-0220 or Notice of Approval required by OAR 340-218-0190:
(a) Intent to construct;
(b) Planned initial startup date;
(c) The types of fuels that the owner or operated plans to combust in the municipal waste combustor; and
(d) The municipal waste combustor unit capacity~~, municipal waste combustor plant capacity,~~ and supporting capacity calculations prepared in accordance with OAR 340-230-0340(10).
[Publications: Publications referenced are available from the agency.]
Stat. Auth.: ORS 468.020
Stats. Implemented: ORS 468A.025
Hist.: DEQ 27-1996, f. & cert. ef. 12-11-96; DEQ 4-2003, f. & cert. ef. 2-06-03DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-025-1000; DEQ 4-2003, f. & cert. ef. 2-06-03

340-230-0359
Compliance Schedule
(1) Compliance with the revised April 28, 2009 emission limits in OAR 340-230-0310 is required as expeditiously as practicable, but not later than April 28, 2009, except as provided in section (2) of the rule.
(2) The owner or operator of an affected facility who is planning an extensive emission control system upgrade may petition the Administrator for a longer compliance schedule and must demonstrate to the satisfaction of the Administrator the need for additional time. If approved, the schedule may exceed the schedule in section (1) of this rule, but cannot exceed May 10, 2011.

DEPARTMENT OF ENVIRONMENTAL QUALITY

DIVISION 238

NEW SOURCE PERFORMANCE STANDARDS

340-238-0040
Definitions
The definitions in OAR 340-200-0020 and this rule apply to this division. If the same term is defined in this rule and OAR 340-200-0020, the definition in this rule applies to this division.
(1) "Administrator" means the Administrator of the EPA or authorized representative.
(2) "Alternative method" means any method of sampling and analyzing for an air pollutant that is not a reference or equivalent method but that has been demonstrated to the Department's satisfaction to, in specific cases, produce results adequate for determination of compliance.
(3) "Capital expenditures" means an expenditure for a physical or operational change to an existing facility that exceeds the product of the applicable "annual asset guideline repair allowance percentage" specified in **Internal Revenue Service (IRS) Publication 534** and the existing facility's basis, as defined by section 1012 of the Internal Revenue Code. However, the total expenditure for a physical or operational change to an existing facility must not be reduced by any "excluded additions" as defined in IRS Publication 534, as would be done for tax purposes.
(4) "CFR" means Code of Federal Regulations and, unless otherwise expressly identified, refers to the July 1, 200~~6~~8 edition.
(5) "Closed municipal solid waste landfill" (closed landfill) means a landfill in which solid waste is no longer being placed, and in which no additional solid wastes will be placed without first filing a notification of modification as prescribed under 40 CFR 60.7(a)(4). Once a notification of modification has been filed, and additional solid waste is placed in the landfill, the landfill is no longer closed. A landfill is considered closed after meeting the criteria of 40 CFR 258.60.
(6) "Commenced", with respect to the definition of "new source" in section 111(a)(2) of the federal Clean Air Act, means that an owner or operator has undertaken a continuous program of construction or modification or that an owner or operator has entered into a contractual obligation to undertake and complete, within a reasonable time, a continuous program of construction or modification.
(7) "Construction" means fabrication, erection, or installation of a facility.
(8) "Department" means the Department of Environmental Quality or, in the case of Lane County, the Lane Regional Air Protection Agency~~Pollution Authority~~.
(9) "Environmental Protection Agency" or "EPA" means the United States Environmental Protection Agency.
(10) "Existing municipal solid waste landfill" (existing landfill) means a municipal solid waste landfill that began construction, reconstruction or modification before 5/30/91 and has accepted waste at any time since 11/08/87 or has additional design capacity available for future waste deposition.
(11) "Equivalent method" means any method of sampling and analyzing for an air pollutant that has been demonstrated to the Department's satisfaction to have a consistent and quantitatively known relationship to the reference method, under specified conditions.
(12) "Existing facility", with reference to a stationary source, means any apparatus of the type for which a standard is promulgated in 40 CFR Part 60, and the construction or modification of which commenced before the date of proposal by EPA of that standard; or any apparatus that could be altered in such a way as to be of that type.

(13) "Facility" means all or part of any public or private building, structure, installation, equipment, vehicle or vessel, including, but not limited to, ships.
(14) "Fixed capital cost" means the capital needed to provide all the depreciable components.
(15) "Large municipal solid waste landfill" (large landfill) means a municipal solid waste landfill with a design capacity greater than or equal to 2.5 million megagrams or 2.5 million cubic meters.
(16) "Modification:"
(a) except as provided in subsection (b) of this section, means any physical change in, or change in the method of operation of, an existing facility that increases the amount of any air pollutant (to which a standard applies) emitted into the atmosphere by that facility or that results in the emission of any air pollutant (to which a standard applies) into the atmosphere not previously emitted;
(b) As used in OAR 340-238-0100 means an action that results in an increase in the design capacity of a landfill.
(17) "Municipal solid waste landfill" (landfill) means an entire disposal facility in a contiguous geographical space where household waste is placed in or on land. A municipal solid waste landfill may also receive other types of RCRA Subtitle D wastes such as commercial solid waste, nonhazardous sludge, conditionally exempt small quantity generator waste, and industrial solid waste. Portions of a municipal solid waste landfill may be separated by access roads and may be publicly or privately owned. A municipal solid waste landfill may be a new municipal solid waste landfill, an existing municipal solid waste landfill, or a lateral expansion (modification).
(18) "New municipal solid waste landfill" (new landfill) means a municipal solid waste landfill that began construction, reconstruction or modification or began accepting waste on or after 5/30/91.
(19) "Particulate matter" means any finely divided solid or liquid material, other than uncombined water, as measured by an applicable reference method, or an equivalent or alternative method.
(20) "Reconstruction" means the replacement of components of an existing facility to such an extent that:
(a) The fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new facility; and
(b) It is technologically and economically feasible to meet the applicable standards set forth in 40 CFR Part 60.
(21) "Reference method" means any method of sampling and analyzing for an air pollutant as specified in 40 CFR Part 60 .
(22) "Small municipal solid waste landfill" (small landfill) means a municipal solid waste landfill with a design capacity less than 2.5 million megagrams or 2.5 million cubic meters.
(23) "Standard" means a standard of performance proposed or promulgated under 40 CFR Part 60.
(24) "State Plan" means a plan developed for the control of a designated pollutant provided under 40 CFR Part 60.
(25) "Stationary source" means any building, structure, facility, or installation that emits or may emit any air pollutant subject to regulation under the federal Clean Air Act.
(26) "Volatile organic compounds" or "VOC" means any organic compounds that participate in atmospheric photochemical reactions; or that are measured by a reference method, an equivalent method, an alternative method, or that are determined by procedures specified under any applicable rule.
[Publications: Publications referenced are available from the agency.]
Stat. Auth.: ORS 468.020
Stats. Implemented: ORS 468A.025
Hist.: DEQ 97, f. 9-2-75, ef. 9-25-75; DEQ 22-1982, f. & ef. 10-21-82; DEQ 17-1983, f. & ef. 10-19-83;

DEQ 16-1984, f. & ef. 8-21-84; DEQ 15-1985, f. & ef. 10-21-85; DEQ 19-1986, f. & ef. 11-7-86; DEQ 17-1987, f. & ef. 8-24-87; DEQ 24-1989, f. & cert. ef. 10-26-89; DEQ 4-1993, f. & cert. ef. 3-10-93; DEQ 17-1993, f. & cert. ef. 11-4-93; DEQ 22-1995, f. & cert. ef. 10-6-95; DEQ 27-1996, f. & cert. ef. 12-11-96; DEQ 8-1997, f. & cert. ef. 5-6-97; DEQ 22-1998, f. & cert. ef. 10-21-98; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-025-0510; DEQ 22-2000, f. & cert. ef. 12-18-00; DEQ 4-2003, f. & cert. ef. 2-06-03; DEQ 2-2005, f. & cert. ef. 2-10-05; DEQ 2-2006, f. & cert. ef. 3-14-06; DEQ 13-2006, f. & cert. ef. 12-22-06

~~340-238-0050~~
~~General Provisions~~
~~(1) Except as provided in section (2) of this rule, **40 CFR Part 60, Subpart A** is by this reference adopted and incorporated herein.~~
~~(2) Where "Administrator" or "EPA" appears in **40 CFR Part 60, Subpart A,** "Department" is substituted, except in any section of **40 CFR Part 60** for which a federal rule or delegation specifically indicates that authority must not be delegated to the state.~~
~~[Publications: Publications referenced are available from the agency.]~~
~~Stat. Auth.: ORS 468.020~~
~~Stats. Implemented: ORS 468A.025~~
~~Hist.: DEQ 97, f. 9-2-75, ef. 9-25-75; DEQ 16-1981, f. & ef. 5-6-81; DEQ 22-1982, f. & ef. 10-21-82; DEQ 17-1983, f. & ef. 10-19-83; DEQ 16-1984, f. & ef. 8-21-84; DEQ 15-1985, f. & ef. 10-21-85; DEQ 19-1986, f. & ef. 11-7-86; DEQ 17-1987, f. & ef. 8-24-87; DEQ 24-1989, f. & cert. ef. 10-26-89; DEQ 17-1993, f. & cert. ef. 11-4-93; DEQ 27-1996, f. & cert. ef. 12-11-96; DEQ 8-1997, f. & cert. ef. 5-6-97; DEQ 22-1998, f. & cert. ef. 10-21-98; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-025-0530; DEQ 22-2000, f. & cert. ef. 12-18-00; DEQ 4-2003, f. & cert. ef. 2-06-03; DEQ 2-2006, f. & cert. ef. 3-14-06~~

340-238-0060
Federal Regulations Adopted by Reference
(1) Except as provided in section (2) of this rule, **40 CFR Part 60 Subparts A, D through XX**, **BBB** through ~~**NNN**, **PPP** through **WWW**,~~ **AAAA**, **CCCC**, ~~and~~ **EEEE**, **IIII**, and **KKKK** are by this reference adopted and incorporated herein, and **40 CFR Part 60 Subpart OOO** is by this reference adopted and incorporated herein for major sources only.
(2) Where "Administrator" or "EPA" appears in 40 CFR Part 60, "Department" is substituted, except in any section of 40 CFR Part 60 for which a federal rule or delegation specifically indicates that authority must not be delegated to the state.
(3) **40 CFR Part 60** Subparts adopted by this rule are titled as follows:
(a) Subpart A -- General Provisions;
(b~~a~~) Subpart D -- Fossil-fuel-fired steam generators for which construction is commenced after August 17, 1971;
(c~~b~~) Subpart Da -- Electric utility steam generating units for which construction is commenced after September 18, 1978;
(d~~c~~) Subpart Db -- Industrial-commercial-institutional steam generating units;
(e~~d~~) Subpart Dc -- Small industrial-commercial-institutional steam generating units;
(f~~e~~) Subpart E -- Incinerators;

(g~~f~~) Subpart Ea -- Municipal waste combustors for which construction is commenced after December 20, 1989 and on or before September 20, 1994;
(h~~g~~) Subpart Eb -- Municipal waste combustors for which construction is commenced after September 20, 1994;
(i~~h~~) Subpart Ec -- Hospital/Medical/Infectious waste incinerators that commenced construction after June 20, 1996, or for which modification is commenced after March 16, 1998;
(j~~i~~) Subpart F -- Portland cement plants;
(k~~j~~) Subpart G -- Nitric acid plants;
(l~~k~~) Subpart H -- Sulfuric acid plants;
(m~~l~~) Subpart I -- Hot mix asphalt facilities;
(n~~m~~) Subpart J -- Petroleum refineries;
(o~~n~~) Subpart K -- Storage vessels for petroleum liquids for which construction, reconstruction, or modification commenced after June 11, 1973, and before May 19, 1978;
(p~~o~~) Subpart Ka -- Storage vessels for petroleum liquids for which construction, reconstruction, or modification commenced after May 18, 1978, and before July 23, 1984;
(q~~p~~) Subpart Kb -- Volatile organic liquid storage vessels (including petroleum liquid storage vessels) for which construction, reconstruction, or modification commenced after July 23, 1984;
(r~~q~~) Subpart L -- Secondary lead smelters;
(s~~r~~) Subpart M -- Secondary brass and bronze production plants;
(t~~s~~) Subpart N -- Primary emissions from basic oxygen process furnaces for which construction is commenced after June 11, 1973;
(u~~t~~) Subpart Na -- Secondary emissions from basic oxygen process steelmaking facilities for which construction is commenced after January 20, 1983;
(v~~u~~) Subpart O -- Sewage treatment plants;
(w~~v~~) Subpart P -- Primary copper smelters;
(x~~w~~) Subpart Q -- Primary Zinc smelters;
(y~~x~~) Subpart R -- Primary lead smelters;
(z~~y~~) Subpart S -- Primary aluminum reduction plants;
(aa~~z~~) Subpart T -- Phosphate fertilizer industry: wet-process phosphoric acid plants;
(bb~~aa~~) Subpart U -- Phosphate fertilizer industry: superphosphoric acid plants;
(cc~~bb~~) Subpart V -- Phosphate fertilizer industry: diammonium phosphate plants;
(dd~~cc~~) Subpart W -- Phosphate fertilizer industry: triple superphosphate plants;
(ee~~dd~~) Subpart X -- Phosphate fertilizer industry: granular triple superphosphate storage facilities;
(ff~~ee~~) Subpart Y -- Coal preparation plants;
(gg~~ff~~) Subpart Z -- Ferroalloy production facilities;
(hh~~gg~~) Subpart AA -- Steel plants: electric arc furnaces constructed after October 21, 1974 and on or before August 17, 1983;
(ii~~hh~~) Subpart AAa -- Steel plants: electric arc furnaces and argon-oxygen decarburization vessels constructed after august 7, 1983;
(jj~~ii~~) Subpart BB -- Kraft pulp mills;
(kk~~jj~~) Subpart CC -- Glass manufacturing plants;
(ll~~kk~~) Subpart DD -- Grain elevators.
(mm~~ll~~) Subpart EE -- Surface coating of metal furniture;
(nn~~mm~~) Subpart GG -- Stationary gas turbines;
(oo~~nn~~) Subpart HH -- Lime manufacturing plants;

(pp~~oo~~) Subpart KK -- Lead-acid battery manufacturing plants;
(qq~~pp~~) Subpart LL -- Metallic mineral processing plants;
(rr~~qq~~) Subpart MM -- Automobile and light-duty truck surface coating operations;
(ss~~rr~~) Subpart NN -- Phosphate rock plants;
(tt~~ss~~) Subpart PP -- Ammonium sulfate manufacture;
(uu~~tt~~) Subpart QQ -- Graphic arts industry: publication rotogravure printing;
(vv~~uu~~) Subpart RR -- pressure sensitive tape and label surface coating operations;
(ww~~vv~~) Subpart SS -- Industrial surface coating: large appliances;
(xx~~ww~~) Subpart TT -- Metal coil surface coating;
(yy~~xx~~) Subpart UU -- Asphalt processing and asphalt roofing manufacture;
(zz~~yy~~) Subpart VV -- Equipment leaks of VOC in the synthetic organic chemicals manufacturing industry;
(aaa) Suppart VVa – Equipment leaks of VOC in the synthetic organic chemicals manufacturing industry;
(bbb~~zz~~) Subpart WW -- Beverage can surface coating industry;
(ccc~~aaa~~) Subpart XX -- Bulk gasoline terminals;
(ddd~~bbb~~) Subpart BBB -- Rubber tire manufacturing industry;
(eee~~ccc~~) Subpart DDD -- Volatile organic compound (VOC) emissions for the polymer manufacture industry;
(fff~~ddd~~) Subpart FFF -- Flexible vinyl and urethane coating and printing;
(ggg~~eee~~) Subpart GGG -- ~~e~~Equipment leaks of VOC in petroleum refineries;
(hhh) Subpart GGGa -- Equipment leaks of VOC in petroleum refineries;
(iii~~fff~~) Subpart HHH -- Synthetic fiber production facilities;
(jjj~~ggg~~) Subpart III -- Volatile organic compound (VOC) emissions from the synthetic organic chemical manufacturing industry (SOCMI) air oxidation unit processes;
(kkk~~hhh~~) Subpart JJJ -- Petroleum dry cleaners;
(lll~~iii~~) Subpart KKK -- Equipment leaks of VOC from onshore natural gas processing plants;
(mmm~~jjj~~) ubpart LLL -- Onshore natural gas processing; SO2 emissions;
(nnn~~kkk~~) Subpart NNN -- Volatile organic compound (VOC) emissions from synthetic organic chemical manufacturing industry (SOCMI) distillation operations;
(ooo~~lll~~) Subpart OOO -- Nonmetallic mineral processing plants (adopted by reference for major sources only);
(ppp~~mmm~~) Subpart PPP -- Wool fiberglass insulation manufacturing plants;
(qqq~~nnn~~) Subpart QQQ -- VOC emissions from petroleum refinery wastewater systems;
(rrr~~ooo~~) Subpart RRR -- Volatile organic compound emissions from synthetic organic chemical manufacturing industry (SOCMI) reactor processes;
(sss~~ppp~~) Subpart SSS -- Magnetic tape coating facilities;
(ttt~~qqq~~) Subpart TTT -- Industrial surface coating: surface coating of plastic parts for business machines;
(uuu~~rrr~~) Subpart UUU -- Calciners and dryers in mineral industries;
(vvv~~sss~~) Subpart VVV -- Polymeric coating of supporting substrates facilities;
(www~~ttt~~) Subpart WWW -- Municipal solid waste landfills, as clarified by OAR 340-238-0100;
(xxx~~uuu~~) Subpart AAAA -- Small municipal waste combustion units;
(yyy~~vvv~~) Subpart CCCC -- Commercial and industrial solid waste incineration units;
(zzz~~www~~) Subpart EEEE -- Other solid waste incineration units;~~.~~
(aaaa) Subpart IIII -- Stationary compression ignition combustion engines;

(bbbb) Subpart JJJJ – Stationary spark ignition internal combustion engines;
(cccc) Subpart KKKK -- Stationary combustion turbines.
[Publications: Publications referenced are available from the agency.]
Stat. Auth.: ORS 468.020
Stats. Implemented: ORS 468A.025
Hist.: DEQ 97, f. 9-2-75, ef. 9-25-75; DEQ 16-1981, f. & ef. 5-6-81; sections (1) thru (12) of this rule renumbered to 340-025-0550 thru 340-025-0605; DEQ 22-1982, f. & ef. 10-21-82; DEQ 17-1983, f. & ef. 10-19-83; DEQ 16-1984, f. & ef. 8-21-84; DEQ 15-1985, f. & ef. 10-21-85; DEQ 19-1986, f. & ef. 11-7-86; DEQ 17-1987, f. & ef. 8-24-87; DEQ 24-1989, f. & cert. ef. 10-26-89; DEQ 17-1993, f. & cert. ef. 11-4-93; DEQ 22-1995, f. & cert. ef. 10-6-95; DEQ 27-1996, f. & cert. ef. 12-11-96; DEQ 8-1997, f. & cert. ef. 5-6-97; DEQ 22-1998, f. & cert. ef. 10-21-98; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-025-0535; DEQ 22-2000, f. & cert. ef. 12-18-00; DEQ 4-2003, f. & cert. ef. 2-06-03; DEQ 2-2005, f. & cert. ef. 2-10-05; DEQ 2-2006, f. & cert. ef. 3-14-06; DEQ 13-2006, f. & cert. ef. 12-22-06

340-238-0090
Delegation
(1) The Lane Regional Air Protection Agency~~Pollution Authority~~ (LRAPA) is authorized to implement and enforce, within its boundaries, the provisions of this division.
(2) The Commission may authorize LRAPA to implement and enforce its own provisions upon a finding that such provisions are at least as stringent as a corresponding provision in this division. LRAPA may implement and enforce provisions authorized by the Commission in place of any or all of this division upon receipt of delegation from EPA. Delegation may be withdrawn for cause by the Commission.
Stat. Auth.: ORS 468.020
Stats. Implemented: ORS 468A.025
Hist.: DEQ 97, f. 9-2-75, ef. 9-25-75; DEQ 4-1993, f. & cert. ef. 3-10-93; DEQ 17-1993, f. & cert. ef. 11-4-93; DEQ 8-1997, f. & cert. ef. 5-6-97; DEQ 22-1998, f. & cert. ef. 10-21-98; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-025-0520

DIVISION 244

OREGON FEDERAL HAZARDOUS AIR POLLUTANT PROGRAM

General Provisions for Stationary Sources

340-244-0020
Delegation of Authority
(1) The Lane Regional Air Protection Agency~~Pollution Authority~~ (LRAPA) is authorized to implement and enforce, within its boundaries, this Division.
(2) The Commission may authorize LRAPA to implement and enforce its own provisions upon a finding that such provisions are at least as stringent as a corresponding provision in this Division. LRAPA may implement and enforce provisions authorized by the Commission in place of any or all of this Division upon receipt of delegation from EPA or approval of such provisions under Section 112(1) of the Federal Clean Air Act. Authorization provided under this section may be withdrawn for cause by the Commission.

Stat. Auth.: ORS 468 & ORS 468A
Stats. Implemented: ORS 468A.025
Hist.: DEQ 13-1993, f. & cert. ef. 9-24-93; DEQ 18-1993, f. & cert. ef. 11-4-93; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-032-0110

340-244-0030
Definitions
The definitions in OAR 340-200-0020, 340-218-0030 and this rule apply to this division. If the same term is defined in this rule and OAR 340-200-0020 or 340-218-0030, the definition in this rule applies to this division.
(1) "Accidental Release" means an unanticipated emission of a regulated substance or other extremely hazardous substance into the ambient air from a stationary source.
(2) "Act" and "FCAA" mean the Federal Clean Air Act, Public Law 88-206 as last amended by Public Law 101-549.
~~(3) "Actual Emissions" means the mass emissions of a pollutant from an emissions source during a specified time period.~~
~~(a) Actual emissions shall equal the average rate at which the source actually emitted the pollutant and which is representative of normal source operation. Actual emissions shall be directly measured with a continuous monitoring system or calculated using a material balance or verified emission factor in combination with the source's actual operating hours, production rates and types of materials processed, stored, or combusted during the specified time period;~~
~~(b) For any source which had not yet begun normal operation in the specified time period, actual emissions shall equal the potential to emit of the source;~~
~~(c) For purposes of OAR 340-244-0100 through 340-244-0180 actual emissions shall equal the actual rate of emissions of a pollutant, but does not include excess emissions from a malfunction, or startups and shutdowns associated with a malfunction.~~
(3) "Annual throughput" means the amount of gasoline transferred into a gasoline dispensing facility during 12 consecutive months.
(4) "Area Source" means any stationary source which has the potential to emit hazardous air pollutants but is not a major source of hazardous air pollutants.
~~(5) "Artificially or Substantially Greater Emissions" means abnormally high emissions such as could be caused by equipment malfunctions, accidents, unusually high production or operating rates compared to historical rates, or other unusual circumstances.~~
~~(6) "Base Year Emissions" for purposes of Early Reductions only (OAR 340-244-0100), means actual emissions in the calendar year 1987 or later.~~
(5~~7~~) "CFR" means Code of Federal Regulations and, unless otherwise expressly identified, refers to the July 1, 2008~~6~~ edition.
(6~~8~~) "Commission" means the Oregon Environmental Quality Commission.
(7~~9~~) "Construct a major ~~S~~source" means to fabricate, erect, or install at any greenfield site a stationary source or group of stationary sources which is located within a contiguous area and under common control and which emits or has the potential to emit 10 tons per year oaf any HAPs or 25 tons per year of any combination of HAP, or to fabricate, erect, or install at any developed site a new process or production unit which in and of itself emits or has the potential to emit 10 tons per year of any HAP or 25 tons per year of any combination of HAP, unless the process or production unit satisfies criteria in paragraphs (a) through (f) of this definition~~paragraph~~:

(a) All HAP emitted by the process or production unit that would otherwise be controlled under the requirements of ~~this~~ **40 CFR Part 63,** ~~s~~**Subpart B** will be controlled by emission control equipment which was previously installed at the same site as the process or production unit;
(b)~~(A)~~ The Department~~permitting authority~~ has determined within a period of 5 years prior to the fabrication, erection, or installation of the process or production unit that the existing emission control equipment represented the best available control technology (BACT), lowest achievable emission rate (LAER) under **40 CFR part 51 or 52**, toxics-best available control technology (T-BACT), or MACT ~~a~~based on State air toxic rules for the category of pollutants which includes those HAP to be emitted by the process or production unit; or
~~(B) T~~the Department~~permitting authority~~ determines that the control of HAP emissions provided by the existing equipment will be equivalent to that level of control currently achieved by other well-controlled similar sources (i.e., equivalent to the level of control that would be provided by a current BACT, LAER, T-BACT, or State air toxic rule MACT determination).
(c) The Department~~permitting authority~~ determines that the percent control efficiency for emission of HAP from all sources to be controlled by the existing control equipment will be equivalent to the percent control efficiency provided by the control equipment prior to the inclusion of the new process or production unit;
(d) The Department~~permitting authority~~ has provided notice and an opportunity for public comment concerning its determination that criteria in paragraphs (a), (b), and (c) of this definition apply and concerning the continued adequacy of any prior LAER, BACT, T-BACT, or State air toxic rule MACT determination;
(e) If any commenter has asserted that a prior LAER, BACT, T-BACT, or State air toxic rule MACT determination is no longer adequate, the Department~~permitting authority~~ has determined that the level of control required by that prior determination remains adequate; and
(f) Any emission limitations, work practice requirements, or other terms and conditions upon which the above determinations by the Department~~permitting authority~~ are predicated will be construed by the Department~~permitting authority~~ as applicable requirements under section 504(a) and either have been incorporated into any existing ~~t~~Title V permit for the affected facility or will be incorporated into such permit upon issuance.
(8~~10~~) "Department" means the Department of Environmental Quality.
(9~~11~~) "Director" means the Director of the Department or Regional Agency~~authority~~, and authorized deputies or officers.
~~(12) "Early Reductions Unit" means a single emission point or group of emissions points defined as a unit for purposes of an alternative emissions limit issued under OAR 340-244-0100 through 340-244-0180.~~
(10) “Dual-point vapor balance system” means a type of vapor balance system in which the storage tank is equipped with an entry port for a gasoline fill pipe and a separate exit port for a vapor connection.
(11~~13~~) "Emission" means a release into the atmosphere of any regulated pollutant or air contaminant.
(12~~14~~) "Emissions Limitation" and "Emissions Standard" mean a requirement adopted by the Department or ~~r~~Regional Agency~~authority~~, or proposed or promulgated by the Administrator of the EPA, which limits the quantity, rate, or concentration of emissions of air pollutants on a continuous basis, including any requirements which limit the level of opacity, prescribe equipment, set fuel specifications, or prescribe operation or maintenance procedures for a source to assure continuous emission reduction.

(13~~15~~) "Emissions Unit" means any part or activity of a stationary source that emits or has the potential to emit any regulated air pollutant.
(a) A part of a stationary source is any machine, equipment, raw material, product, or by-product that produces or emits air pollutants. An activity is any process, operation, action, or reaction (e.g., chemical) at a stationary source that emits air pollutants. Except as described in ~~subsection~~paragraph (d) of this definition~~section~~, parts and activities may be grouped for purposes of defining an emissions unit provided the following conditions are met:
(A) The group used to define the emissions unit may not include discrete parts or activities to which a distinct emissions standard applies or for which different compliance demonstration requirements apply; and
(B) The emissions from the emissions unit are quantifiable.
(b) Emissions units may be defined on a pollutant by pollutant basis where applicable;
(c) The term "emissions unit" is not meant to alter or affect the definition of the term "unit" for purposes of Title IV of the FCAA;
(d) Parts and activities ~~shall~~ cannot be grouped for ~~purposes of~~ determining emissions increases from an emissions unit under OAR 340-224-0050~~,~~ through 340-224-0070, or OAR 340 division 210~~340-218-0190~~, or for ~~purposes of~~ determining the applicability of a New Source Performance Standard (NSPS).
(14~~16~~) "EPA" means the Administrator of the United States Environmental Protection Agency or the Administrator's designee.
~~(17) "EPA Conditional Method" means any method of sampling and analyzing for air pollutants which has been validated by the EPA but which has not been published as an EPA reference method.~~
~~(18) "EPA Reference Method" means any method of sampling and analyzing for an air pollutant as described in 40 CFR Part 60, 61, or 63.~~
(15~~19~~) "Equipment leaks" means leaks from pumps, compressors, pressure relief devices, sampling connection systems, open ended valves or lines, valves, connectors, agitators, accumulator vessels, and instrumentation systems in hazardous air pollutant service.
(16~~20~~) "Existing Source" means any source, the construction of which commenced prior to proposal of an applicable standard under sections 112 or 129 of the FCAA.
(17~~21~~) "Facility" means all or part of any public or private building, structure, installation, equipment, or vehicle or vessel, including but not limited to ships.
(18~~22~~) "Fugitive Emissions" means emissions of any air contaminant that escape to the atmosphere from any point or area that is not identifiable as a stack, vent, duct or equivalent opening.
~~(23) "Generally Available Control Technology (GACT)" means an alternative emission standard promulgated by EPA for non-major sources of hazardous air pollutants which provides for the use of control technology or management practices which are generally available.~~
(19) “Gasoline cargo tank” means a delivery tank truck or railcar which is loading gasoline or which has loaded gasoline on the immediately previous load.
(20) “Gasoline dispensing facility (GDF)” means any stationary facility which dispenses gasoline into the fuel tank of a motor vehicle.
(21~~24~~) "Hazardous Air Pollutant" (HAP) means an air pollutant listed by the EPA pursuant to section 112(b) of the FCAA or determined by the Commission to cause, or reasonably be anticipated to cause, adverse effects to human health or the environment.
~~(25) "High-Risk Pollutant" means any air pollutant listed in Table 2 of OAR 340-244-0140 for which exposure to small quantities may cause a high risk of adverse public health effects.~~

(22~~26~~) "Major Source" means any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit considering controls, in the aggregate, 10 tons per year or more of any hazardous air pollutant or 25 tons per year or more of any combination of hazardous air pollutants. The EPA may establish a lesser quantity, or in the case of radionuclides different criteria, for a major source on the basis of the potency of the air pollutant, persistence, potential for bioaccumulation, other characteristics of the air pollutant, or other relevant factors.
(23~~27~~) "Maximum Achievable Control Technology (MACT)" means an emission standard applicable to major sources of hazardous air pollutants that requires the maximum degree of reduction in emissions deemed achievable for either new or existing sources.
(24) “Monthly throughput” means the total volume of gasoline that is loaded into all gasoline storage tanks during a month, as calculated on a rolling 30-day average.
(25~~28~~) "New Source" means a stationary source, the construction of which is commenced after proposal of a federal MACT or January 3, 1993 of this Division, whichever is earlier.
~~(29) "Not Feasible to Prescribe or Enforce a Numerical Emission Limit" means a situation in which the Department determines that a pollutant or stream of pollutants listed in OAR 340-244-0040 cannot be emitted through a conveyance designed and constructed to emit or capture such pollutant, or that any requirement for, or use of, such a conveyance would be inconsistent with any state or federal law or regulation; or the application of measurement technology to a particular source is not practicable due to technological or economic limitations.~~
(26~~30~~) "Person" means the United States Government and agencies thereof, any state, individual, public or private corporation, political subdivision, governmental agency, municipality, industry, co-partnership, association, firm, trust, estate, or any other legal entity whatsoever.
(27~~31~~) "Potential to Emit" means the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation is enforceable by the EPA. This section does not alter or affect the use of this section for any other purposes under the Act, or the term "capacity factor" as used in Title IV of the Act or the regulations promulgated thereunder. Secondary emissions shall not be considered in determining the potential to emit of a source.
(28~~32~~) "Reconstruct a Major Source" means the replacement of components at an existing process or production unit that in and of itself emits or has the potential to emit 10 tons per year of any HAP or 25 tons per year of any combination of HAP, whenever: the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable process or production unit; and; it is technically and economically feasible for the reconstructed major source to meet the applicable maximum achievable control technology emission limitation for new sources established under **40 CFR Part 63 Subpart B**.
(29~~33~~) "Regional Agency~~Authority~~" means Lane Regional Air Protection Agency~~Pollution Authority~~.
(30~~34~~) "Regulated Air Pollutant" as used in this Division means:
(a) Any pollutant listed under OAR 340-200-0400 or 340-244-0230; or
(b) Any pollutant that is subject to a standard promulgated pursuant to Section 129 of the Act.
(31~~35~~) "Secondary Emissions" means emissions from new or existing sources which occur as a result of the construction and/or operation of a source or modification, but do not come from the source itself. Secondary emissions shall be specific, well defined, and quantifiable, and impact the same general area

as the source associated with the secondary emissions. Secondary emissions may include but are not limited to:

(a) Emissions from ships and trains coming to or from a facility;

(b) Emissions from offsite support facilities which would be constructed or would otherwise increase emissions as a result of the construction of a source or modification.

(32~~36~~) "Section 111" means that section of the FCAA that includes standards of performance for new stationary sources.

(33~~37~~) "Section 112(b)" means that subsection of the FCAA that includes the list of hazardous air pollutants to be regulated.

(34~~38~~) "Section 112(d)" means that subsection of the FCAA that directs the EPA to establish emission standards for sources of hazardous air pollutants. This section also defines the criteria to be used by EPA when establishing the emission standards.

(35~~39~~) "Section 112(e)" means that subsection of the FCAA that directs the EPA to establish and promulgate emissions standards for categories and subcategories of sources that emit hazardous air pollutants.

(36~~40~~) "Section 112(n)" means that subsection of the FCAA that includes requirements for the EPA to conduct studies on the hazards to public health prior to developing emissions standards for specified categories of hazardous air pollutant emission sources.

(37~~41~~) "Section 112(r)" means that subsection of the FCAA that includes requirements for the EPA promulgate regulations for the prevention, detection and correction of accidental releases.

(38~~42~~) "Section 129" means that section of the FCAA that requires EPA to promulgate regulations for solid waste combustion.

(39~~43~~) "Solid Waste Incineration Unit" as used in this Division shall have the same meaning as given in Section 129(g) of the FCAA.

(40~~44~~) "Stationary Source":

(a) As used in OAR 340 division 244 means any building, structure, facility, or installation which emits or may emit any regulated air pollutant;

(b) As used in OAR 340-244-0230 means any buildings, structures, equipment, installations, or substance emitting stationary activities:

(A) That belong to the same industrial group;

(B) That are located on one or more contiguous properties;

(C) That are under the control of the same person (or persons under common control); and

(D) From which an accidental release may occur.

(41) “Submerged filling” means, for the purposes of this subpart, the filling of a gasoline storage tank through a submerged fill pipe whose discharge is no more than the applicable distance specified in OAR 340-244-0242(2) from the bottom of the tank. Bottom filling of gasoline storage tanks is included in this definition.

(42) “Vapor balance system” means a combination of pipes and hoses that create a closed system between the vapor spaces of an unloading gasoline cargo tank and a receiving storage tank such that vapors displaced from the storage tank are transferred to the gasoline cargo tank being unloaded.

(43) “Vapor-tight” means equipment that allows no loss of vapors. Compliance with vapor-tight requirements can be determined by checking to ensure that the concentration at a potential leak source is not equal to or greater than 100 percent of the Lower Explosive Limit when measured with a combustible gas detector, calibrated with propane, at a distance of 1 inch from the source.

[Publications: Publications referenced are available from the agency.]

Stat. Auth.: ORS 468.020 & 468A.025
Stats. Implemented: ORS 468A.040
Hist.: DEQ 13-1993, f. & cert. ef. 9-24-93; DEQ 18-1993, f. & cert. ef. 11-4-93; DEQ 24-1994, f. & cert. ef. 10-28-94; DEQ 22-1995, f. & cert. ef. 10-6-95; DEQ 26-1996, f. & cert. ef. 11-26-96; DEQ 20-1997, f. & cert. ef. 9-25-97; DEQ 18-1998, f. & cert. ef. 10-5-98; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-032-0120; DEQ 2-2005, f. & cert. ef. 2-10-05; DEQ 2-2006, f. & cert. ef. 3-14-06; DEQ 13-2006, f. & cert. ef. 12-22-06

Compliance Extensions for Early Reductions

340-244-0100
Applicability
The requirements of ~~OAR 340-244-0100 through 340-244-0180~~ **40 CFR Part 63, Subpart D** apply to an owner or operator of an existing source who wishes to obtain a compliance extension and an alternative emission limit from a standard issued under Section 112(d) of the FCAA. Any owner or operator of a facility who elects to comply with a compliance extension and alternative emission limit issued under this section must complete a permit application as prescribed in **40 CFR 63.77**~~OAR 340-244-0110~~.
Stat. Auth.: ORS 468.020 & ORS 468A.310
Stats. Implemented: ORS 468A.310
Hist.: DEQ 13-1993, f. & cert. ef. 9-24-93; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-032-0300

~~**340-244-0110**~~
~~**Permit Application Procedures for Early Reductions**~~
~~(1) To apply for an alternative emission limitation under OAR 340-244-0100, an owner or operator of the source shall file a permit application with the Department.~~
~~(2) Except as provided in (3) of this rule, the permit application shall contain the information required in OAR 340-244-0140 and shall comply with additional permit application procedures as prescribed in OAR 340 division 218.~~
~~(3) Permit applications for Early Reductions shall be submitted no later than 120 days after proposal of an otherwise applicable standard issued under Section 112(d) of the Act provided that the reduction was achieved prior to the date of proposal of the standard.~~
~~(4) The post reduction emissions information required under OAR 340-244-0140(5)(b), OAR 340-244-0140(5)(c), and OAR 340-244-0140(5)(e) shall not be filed as part of the source's initial permit application but shall be filed later as a supplement to the application. This supplementary information shall be filed no earlier than one year after the date early reductions had to be achieved according to OAR 340-244-0120(1)(b) and no later than 13 months after such date.~~
~~(5) If a source test is the supporting basis for establishing post-reduction emissions for one or more emission points in the Early Reductions Unit, the test results shall be submitted by the applicable deadline for submittal of a permit application as specified in section (3) of this rule.~~
~~(6) The Department shall review and decide on permit applications for early reductions according to the provisions of OAR 340 division 218.~~
~~Stat. Auth.: ORS 468.020 & ORS 468A.310~~
~~Stats. Implemented: ORS 468A.310~~

~~Hist.: DEQ 13-1993, f. & cert. ef. 9-24-93; DEQ 24-1994, f. & cert. ef. 10-28-94; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-032-0310~~

~~**340-244-0120**~~

~~**General Provisions for Compliance Extensions**~~

~~(1) The Department will, by permit issued in accordance with OAR 340 division 218, allow an existing source to meet an alternative emission limitation for an Early Reductions Unit in lieu of an emission limitation promulgated under Section 112(d) of the FCAA for a period of six years from the compliance date of the otherwise applicable standard, provided the owner or operator demonstrates:~~

~~(a) According to the requirements of OAR 340-244-0140 that the Early Reductions Unit has achieved a reduction of at least 90 percent (95 percent or more in the case of HAP that are particulate) in emissions of:~~

~~(A) Total HAP from the Early Reductions Unit; or~~

~~(B) Total HAP from the Early Reductions Unit as adjusted for high-risk pollutant weighing factors (**Table 2**), if applicable.~~

~~(b) That such reduction was achieved before the otherwise applicable standard issued under Section 112(d) of the FCAA was first proposed.~~

~~(2) A source granted an alternative emission limitation must comply with an applicable standard issued under Section 112(d) of the FCAA immediately upon expiration of the six-year compliance extension period specified in section (1) of this rule.~~

~~(3) For each facility issued a permit under section (1) of this rule, there must be established as part of the permit an enforceable alternative emission limitation for HAP for each Early Reductions Unit reflecting the reduction that qualified the Early Reductions Unit for the alternative emission limitation.~~

~~(4) Any source that has received an alternative emissions limit from EPA, either pursuant to **40 CFR 63.75 Enforceable Commitments** dated **December 29, 1992**, or as a Title V specialty permit, must have the alternative emission limit(s) incorporated as an applicable requirement in its operating permit pursuant to OAR 340-218-0150 upon permit issuance or renewal.~~

~~(5) If a source fails to submit a timely and complete application according to OAR 340-218-0040, or does not adequately demonstrate the required reductions in emissions pursuant to OAR 340-244-0140, the Department will not approve the source's application for a compliance extension and alternative emission limit, and the source must comply with any applicable emission standard established pursuant to 112(d) of the FCAA by the compliance date prescribed in the applicable standard.~~

~~Stat. Auth.: ORS 468.020 & 468A.310~~

~~Stats. Implemented: ORS 468A.310~~

~~Hist.: DEQ 13-1993, f. & cert. ef. 9-24-93; DEQ 24-1994, f. & cert. ef. 10-28-94; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-032-0320; DEQ 2-2005, f. & cert. ef. 2-10-05~~

~~**340-244-0130**~~

~~**Determination of Early Reductions Unit**~~

~~An alternative emission limitation may be granted under this section to an existing Early Reductions Unit as defined below provided that a 90 percent (or 95 percent in the case of particulate emissions) reduction in base year HAP emissions is achieved. For the purposes of compliance extensions for early reductions only, an "Early Reductions Unit" includes any of the following:~~

~~(1) A building structure, facility, or installation identified as a source under any proposed or promulgated standard issued under 112(d) of the FCAA;~~

~~(2) All portions of an entire contiguous plant site under common ownership or control that emit hazardous air pollutants;~~

~~(3) Any portion of an entire contiguous plant site under common ownership or control that emits HAP and can be identified as a facility, building, structure, or installation for the purposes of establishing standards under Section 112(d) of the FCAA; or~~

~~(4) Any individual emission point or combination of emission points within a contiguous plant site under common control, provided that the base year emissions of HAP from such point or aggregation of points is at least ten tons per year where the total base year emissions of HAP from the entire contiguous plant site is greater than 25 tons, or at least five tons per year where the total base year emissions of HAP from the entire contiguous plant site is equal to or less than 25 tons.~~

~~Stat. Auth.: ORS 468.020 & ORS 468A.310~~

~~Stats. Implemented: ORS 468A.310~~

~~Hist.: DEQ 13-1993, f. & cert. ef. 9-24-93; DEQ 24-1994, f. & cert. ef. 10-28-94; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-032-0330~~

~~340-244-0140~~

~~Demonstration of Early Reduction~~

~~(1) For purposes of determining emissions for Early Reductions, "Actual emissions" means the actual rate of emissions of a pollutant, but does not include excess emissions from a malfunction, or startups and shutdowns associated with a malfunction. Actual emissions shall be calculated using the source's actual operating rates, and types of materials processed, stored, or combusted during the selected time period.~~

~~(2) An owner or operator applying for an alternative emission limitation shall demonstrate achieving early reductions as required by OAR 340-244-0120(1) by following the procedures in this rule.~~

~~(3) An owner or operator shall establish the Early Reductions Unit for the purposes of a compliance extension and alternative emission limit by documenting the following information:~~

~~(a) A description of the Early Reductions Unit including a site plan of the entire contiguous plant site under common control that contains the Early Reductions Unit, markings on the site plan locating the parts of the site that constitute the Early Reductions Unit, and the activity at the Early Reductions Unit that causes HAP emissions;~~

~~(b) A complete list of all emission points of HAP in the Early Reductions Unit, including identification numbers and short descriptive titles; and~~

~~(c) A statement showing that the Early Reductions Unit conforms to one of the allowable definition options from OAR 340-244-0130. For an Early Reductions Unit conforming to the option in OAR 340-244-0130(4), the total base year emissions from the Early Reductions Unit, as determined pursuant to this section, shall be demonstrated to be at least:~~

~~(A) Five tons per year, for cases in which total HAP emissions from the entire contiguous plant site under common control are 25 tons per year or less as required under section (12) of this rule; or~~

~~(B) Ten tons per year in all other cases.~~

~~(4) An owner or operator shall establish base year emissions for the Early Reductions Unit by providing the following information:~~

~~(a) The base year chosen, where the base year shall be 1987 or later;~~

~~(b) The best available data accounting for actual emissions, during the base year, of all HAP from each emission point listed in the Early Reductions Unit in subsection (3)(b) of this rule;~~

~~(c) The supporting basis for each emission number provided in subsection (4)(b) of this rule including:~~

~~(A) For test results submitted as the supporting basis, a description of the test protocol followed, any problems encountered during the testing, a discussion of the validity of the method for measuring the subject emissions, and evidence that the testing was conducted in accordance with the Department's **Source Sampling Manual** or **Continuous Monitoring Manual**; and~~

~~(B) For calculations based on emission factors, material balance, or engineering principles and submitted as the supporting basis, a step-by-step description of the calculations, including assumptions used and their bases, and a brief rationale for the validity of the calculation method used; and~~

~~(d) Evidence that the emissions provided under subsection (4)(b) of this rule are not artificially or substantially greater than emissions in other years prior to implementation of emission reduction measures.~~

~~(5) An owner or operator shall establish post-reduction emissions by providing the following information:~~

~~(a) For the emission points listed in the Early Reductions Unit in subsection (3)(b) of this rule a description of all control measures employed to achieve the emission reduction required by OAR 340-244-0120(1)(a);~~

~~(b) The best available data accounting for actual emissions, during the year following the applicable emission reduction deadlines as specified in OAR 340-244-0120(1)(b), of all HAP from each emission point in the Early Reductions Unit listed in subsection (3)(b) of this rule;~~

~~(c) The supporting basis for each emission number provided in subsection (5)(b) of this rule including:~~

~~(A) For test results submitted as the supporting basis, a description of the test protocol followed, any problems encountered during the testing, a discussion of the validity of the method for measuring the subject emissions, and evidence that the testing was conducted in accordance with the Department's **Source Sampling Manual** or **Continuous Monitoring Manual**; and~~

~~(B) For calculations based on emission factors, material balance, or engineering principles and submitted as the supporting basis, a step-by-step description of the calculations, including assumptions used and their bases, and a brief rationale for the validity of the calculation method used.~~

~~(d) Evidence that there was no increase in radionuclide emissions from the source.~~

~~(6)(a) An owner or operator shall demonstrate that both total base year emissions and total base year emissions adjusted for high-risk pollutants (**Table 2**), as applicable, have been reduced by at least 90 percent for gaseous HAP emitted and 95 percent for particulate HAP emitted by determining the following for gaseous and particulate emissions separately:~~

~~(A) Total base year emissions, calculated by summing all base year emission data from subsection (4)(b) of this rule;~~

~~(B) Total post-reduction emissions, calculated by summing all post-reduction emission data from subsection (5)(b) of this rule;~~

~~(C) Total base year emissions adjusted for high-risk pollutants, calculated by multiplying each emission number for a pollutant from subsection (4)(b) of this rule by the appropriate weighing factor for the pollutant from **Table 2** and then summing all weighted emission data; and~~

~~(D) Total post-reduction emissions adjusted for high-risk pollutants, calculated by multiplying each emission number for a pollutant from subsection (5)(b) of this rule by the appropriate weighing factor for the pollutant from **Table 2** and then summing all weighted emission data;~~

~~(E) Percent reductions, calculated by dividing the difference between base year and post reduction emissions by the base year emissions. Separate demonstrations are required for total gaseous and particulate emissions, and total gaseous and particulate emissions adjusted for high-risk pollutants.~~

~~(b) If any points in the Early Reductions Unit emit both particulate and gaseous pollutants, as an alternative to the demonstration required in subsection (6)(a) of this rule, an owner or operator may demonstrate:~~

~~(A) A weighted average percent reduction for all points emitting both particulate and gaseous pollutants where the weighted average percent reduction is determined by: [Formula not included. See ED. NOTE.]~~

~~(B) The reductions required in subsection (6)(a) of this rule for all other points in each Early Reductions Unit.~~

~~(7) If lower rates or hours are used to achieve all or part of the emission reduction, any HAP emissions that occur from a compensating increase in rates or hours from the same activity elsewhere within the plant site that contains the Early Reductions Unit shall be counted in the post-reduction emissions from the Early Reductions Unit. If emission reductions are achieved by shutting down process equipment and the shutdown equipment is restarted or replaced anywhere within the plant site, any hazardous air pollutant emissions from the restarted or replacement equipment shall be counted in the post-reduction emissions for the Early Reductions Unit.~~

~~(8) The best available data representing actual emissions for the purpose of establishing base year or post-reduction emissions under this rule shall consist of documented results from source tests using an EPA Reference Method, EPA Conditional Method, or the owner's or operator's source test method that has been validated pursuant to **Method 301** of **40 CFR Chapter I Part 63 Appendix A,** dated **June 1992**. However, if one of the following conditions exists, an owner or operator may submit, in lieu of results from source tests, calculations based on engineering principles, emission factors, or material balance data as actual emission data for establishing base year or post-reduction emissions:~~

~~(a) No applicable EPA Reference Method, EPA Conditional Method, or other source test method exists;~~

~~(b) It is not technologically or economically feasible to perform source tests;~~

~~(c) It can be demonstrated to the satisfaction of the Department that the calculations will provide emission estimates of accuracy comparable to that of any applicable source test method;~~

~~(d) For base year emission estimates only, the base year conditions no longer exist at an emission point in the Early Reductions Unit and emission data could not be produced for such an emission point, by performing source tests under currently existing conditions and converting the test results to reflect base year conditions, that is more accurate than an estimate produced by using engineering principles, emission factors, or a material balance; or~~

~~(e) The emissions from one or a set of emission points in the Early Reductions Unit are small compared to total Early Reductions Unit emissions and potential errors in establishing emissions from such points will not have a significant effect on the accuracy of total emissions established for the Early Reductions Unit.~~

~~(9) For base year or post-reduction emissions established under this rule that are not supported by source test data, the source owner or operator shall include the reason source testing was not performed.~~

~~(10) The EPA average emission factors for equipment leaks cannot be used under this subpart to establish base year emissions for equipment leak Early Reductions Units, unless the base year emission number calculated using the EPA average emission factors for equipment leaks also is used as the post-reduction emission number for equipment leaks from the Early Reductions Unit.~~

~~(11) A source owner or operator shall not establish base year or post-reduction emissions that include any emissions from the Early Reductions Unit exceeding allowable emission levels specified in any applicable law, regulation, or permit condition.~~

~~(12) For Early Reductions Units subject to paragraph (3)(c)(A) of this rule, an owner or operator shall document total base year emissions from an entire contiguous plant site under common control by providing the following information for all HAP from all emission points in the contiguous plant site under common control:~~

~~(a) A complete list of all emission points of HAP;~~

~~(b) The best available data accounting for all HAP emissions during the base year from each HAP emission point;~~

~~(c) Total base year emissions calculated by summing all base year emissions data from subsection (b) of this section.~~

~~(13) If a new pollutant is added to the list of HAP or high-risk pollutants, any source emitting such pollutant will not be required to revise an early reduction demonstration pursuant to this rule if alternative emission limits have previously been specified by permit for the Early Reductions Unit as provided for in OAR 340-244-0120(1).~~

~~[ED. NOTE: Copies of the Formula referenced in this rule are available from the agency.]~~

~~[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the agency.]~~

~~Stat. Auth.: ORS 468.020 & ORS 468A.310~~

~~Stats. Implemented: ORS 468A.310~~

~~Hist.: DEQ 13-1993, f. & cert. ef. 9-24-93; DEQ 24-1994, f. & cert. ef. 10-28-94; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-032-0340~~

~~340-244-0150~~

~~Review of Base Year Emissions~~

~~(1) Pursuant to the procedures of this rule, the Department shall review and approve or disapprove base year emissions data submitted in a permit application from an applicant that wishes to participate in the early reduction program. A copy of the permit application shall also be submitted to the EPA Region 10 Office.~~

~~(2) Within 30 days of receipt of base year emission data, the Department shall advise the applicant that:~~

~~(a) The base year emission data are complete as submitted; or~~

~~(b) The base year emission data are not complete and include a list of deficiencies that must be corrected before review can proceed.~~

~~(3) Within 60 days of a determination that a base year emission data submission is complete, the Department shall evaluate the adequacy of the submission with respect to the requirements of OAR 340-244-0140(2) through (4) and either:~~

~~(a) Propose to approve the submission and publish a notice in a newspaper of general circulation in the area where the source is located or in a state publication designed to give general public notice, providing the aggregate base year emission data for the source and the rationale for the proposed approval, noting the availability of the nonconfidential information contained in the submission for public inspection in at least one location in the community in which the source is located, providing for a public hearing upon request by at least ten interested persons, and establishing a 30 day public comment period that can be extended to 60 days upon request by at least ten interested persons; or~~

~~(b) Propose to disapprove the base year emission data and give notice to the applicant of the reasons for the disapproval. An applicant may correct disapproved base year data and submit revised data for review in accordance with this subsection, except that the review of a revision shall be accomplished within 30 days.~~

~~(4) If no adverse public comments are received by the reviewing agency on proposed base year data for a source, the data shall be considered approved at the close of the public comment period and a notice of the approval shall be sent to the applicant and published by the reviewing agency by advertisement in the area affected.~~
~~(5) If adverse public comments are received and the Department agrees that corrections are needed, the Department shall give notice to the applicant of the disapproval and reasons for the disapproval. An applicant may correct disapproved base year emission data and submit revised emission data. If a revision is submitted by the applicant that, to the satisfaction of the Department, takes into account the adverse comments, the Department will publish by advertisement in the area affected a notice containing the approved base year emission data for the source and send notice of the approval to the applicant.~~
~~(6) If adverse public comments are received and the Department determines that the comments do not warrant changes to the base year emission data, the Department will publish by advertisement in the area affected a notice containing the approved base year emission data for the source and the reasons for not accepting the adverse comments. A notice of the approval also shall be sent to the applicant.~~
~~Stat. Auth.: ORS 468.020 & ORS 468A.310~~
~~Stats. Implemented: ORS 468A.310~~
~~Hist.: DEQ 13-1993, f. & cert. ef. 9-24-93; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-032-0350~~

~~340-244-0160~~
~~Early Reduction Demonstration Evaluation~~
~~(1) The Department will evaluate an early reduction demonstration submitted by the source owner or operator in a permit application with respect to the requirements of OAR 340-244-0140.~~
~~(2) An application for a compliance extension may be denied if, in the judgement of the Department, the owner or operator has failed to demonstrate that the requirements of OAR 340-244-0140 have been met. Specific reasons for denial include, but are not limited to:~~
~~(a) The information supplied by the owner or operator is incomplete;~~
~~(b) The required 90 percent reduction (95 percent in cases where the HAP is particulate matter) has not been demonstrated;~~
~~(c) The base year or post-reduction emissions are incorrect, based on methods or assumptions that are not valid, or not sufficiently reliable or well documented to determine with reasonable certainty that required reductions have been achieved; or~~
~~(d) The emission of HAP or the performance of emission control measures is unreliable so as to preclude determination that the required reductions have been achieved or will continue to be achieved during the extension period.~~
~~Stat. Auth.: ORS 468.020 & ORS 468A.310~~
~~Stats. Implemented: ORS 468A.310~~
~~Hist.: DEQ 13-1993, f. & cert. ef. 9-24-93; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-032-0360~~

~~340-244-0170~~
~~Approval of Applications~~
~~(1) If an early reduction demonstration is approved and other requirements for a complete permit application are met, the Department shall establish by a permit issued pursuant to OAR 340 division 218, enforceable alternative emissions limitations for each Early Reductions Unit reflecting the~~

~~reduction which qualified the Early Reductions Unit for the extension. However, if it is not feasible to prescribe a numerical emissions limitation for one or more emission points in the Early Reductions Unit, the Department shall establish such other requirements, reflecting the reduction which qualified the Early Reductions Unit for an extension, in order to assure that the 90 or 95 percent reduction, as applicable, is achieved.~~
~~(2) An alternative emissions limitation or other requirement prescribed pursuant to section (1) of this rule shall be effective and enforceable immediately upon issuance of the permit for the source and shall expire exactly six years after the compliance date of an otherwise applicable standard issued pursuant to Section 112(d) of the Act.~~
~~Stat. Auth.: ORS 468.020 & ORS 468A.310~~
~~Stats. Implemented: ORS 468A.310~~
~~Hist.: DEQ 13-1993, f. & cert. ef. 9-24-93; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-032-0370~~

~~340-244-0180~~
~~Rules for Special Situations~~
~~(1) If more than one standard issued under Section 112(d) of the FCAA would be applicable to an Early Reductions Unit as defined under OAR 340-244-0130, then the date of proposal referred to in OAR 340-244-0110(3), 340-244-0120(1)(b), and 340-244-0140(5)(d), is the date the first applicable standard is proposed.~~
~~(2) Sources emitting radionuclides are not required to reduce radionuclides by 90 (95) percent. Radionuclides may not be increased from the source as a result of the early reductions demonstration.~~
~~Stat. Auth.: ORS 468.020 & ORS 468A.310~~
~~Stats. Implemented: ORS 468A.310~~
~~Hist.: DEQ 13-1993, f. & cert. ef. 9-24-93; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-032-0380~~

Emission Standards

340-244-0210
Emissions Limitation for Existing Sources
(1) Federal MACT. Existing major and area sources must comply with the applicable emissions standards for existing sources promulgated by the EPA pursuant to section 112(d), section 112(n), or section 129 of the FCAA and adopted by rule within this Division.
(2) State MACT. If the EPA fails to meet its schedule for promulgating a MACT standard for a source category or subcategory, the Department must approve HAP emissions limitations for existing major sources within that category or subcategory according to **40 CFR Part 63**, **Subpart B**.
(a) The owner or operator of each existing major source within that category will file permit applications in accordance with OAR 340-218-0040 and **40 CFR Part 63**, **Subpart B**.
(b) If, after a permit has been issued, the EPA promulgates a MACT standard applicable to a source that is more stringent than the one established pursuant to this section, the Department may revise the permit upon the next renewal to reflect the standard promulgated by the EPA. The source will be given a reasonable time to comply, but no longer than 8 years after the standard is promulgated;
(c) The Department will not establish a case-by-case State MACT:

(A) For existing solid waste incineration units where an emissions standard will be established for these units by the EPA pursuant to section 111 of the FCAA. These sources are subject to applicable emissions standards under OAR chapter 340, division 230~~25~~; or
(B) For existing major HAP sources where an emissions standard or alternative control strategy will be established by the EPA pursuant to section 112(n) of the FCAA.
(3) Compliance schedule:
(a) The owner or operator of the source must comply with the emission limitation:
(A) Within the time frame established in the applicable Federal MACT standard, but in no case later than three years from the date of federal promulgation of the applicable MACT requirements; or
(B) Within the time frame established by the Department where a state-determined MACT has been established or a case-by-case determination has been made.
~~(b) The owner or operator of the source may apply for, and the Commission may grant, a compliance extension of up to one year if such additional period is necessary for the installation of controls;~~
(b~~c~~) Notwithstanding the requirements of this section, no existing source that has installed Best Available Control Technology or has been required to meet Lowest Achievable Emission Rate before the promulgation of a federal MACT applicable to that emissions unit is be required to comply with such MACT standard until 5 years after the date on which such installation or reduction has been achieved, as determined by the Department.
[Publications: Publications referenced are available from the agency.]
Stat. Auth.: ORS 468 & 468A
Stats. Implemented: ORS 468A.310
Hist.: DEQ 13-1993, f. & cert. ef. 9-24-93; DEQ 7-1998, f. & cert. ef. 5-5-98; DEQ 18-1998, f. & cert. ef. 10-5-98, Renumbered from 340-032-2500; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-032-0505; DEQ 4-2003, f. & cert. ef. 2-06-03; DEQ 2-2005, f. & cert. ef. 2-10-05

340-244-0220
Federal Regulations Adopted by Reference
(1) Except as provided in sections (2) and (3) of this rule, 40 CFR Part 61, Subparts **A, C** through **F**, ~~**I,**~~ **J, L, N** through **P, V,** and **Y**~~**, BB and**~~ through **FF** and **40 CFR Part 63, Subparts A, F through BBBBBB, DDDDDD through GGGGGG, and LLLLLL through TTTTTT**~~**, G, H, I, J, L, M, N, O, Q, R, S, T, U, W, X, Y, AA, BB, CC, DD, EE, GG, HH, II, JJ, KK, LL, MM, OO, PP, QQ, RR, SS, TT, UU, VV, WW, XX, YY, CCC, DDD, EEE, GGG, HHH, III, JJJ, LLL, MMM, NNN, OOO, PPP, QQQ, RRR, TTT, UUU, VVV, XXX, AAAA, CCCC, DDDD, EEEE, FFFF, GGGG, HHHH, IIII, JJJJ, KKKK, MMMM, NNNN, OOOO, PPPP, QQQQ, RRRR, SSSS, TTTT, UUUU, VVVV, WWWW, XXXX, YYYY, ZZZZ, AAAAA, BBBBB, CCCCC, DDDDD, EEEEE, FFFFF, GGGGG, HHHHH, IIIII, JJJJJ, KKKKK, LLLLL, MMMMM, NNNNN, PPPPP, QQQQQ, RRRRR, SSSSS, and TTTTT**~~ are adopted by reference and incorporated herein.
(2) Where "Administrator" or "EPA" appears in 40 CFR Part 61 or 63, "Department" is substituted, except in any section of 40 CFR Part 61 or 63, for which a federal rule or delegation specifically indicates that authority will not be delegated to the state.
(3) 40 CFR Part 63 Subpart M -- Dry Cleaning Facilities using Perchloroethylene: The exemptions in 40 CFR 63.320(d) and (e) do not apply.
(4) 40 CFR Part 61 Subparts adopted by this rule are titled as follows:
(a) Subpart A -- General Provisions;
~~(b) Subpart B -- Radon Emissions from Underground Uranium Mines;~~

(b~~c~~) Subpart C -- Beryllium;
(c~~d~~) Subpart D -- Beryllium Rocket Motor Firing;
(d~~e~~) Subpart E -- Mercury;
(e~~f~~) Subpart F -- Vinyl Chloride;
~~(g) Subpart I -- Radionuclide Emissions from Federal Facilities Other than Nuclear Regulatory Commission Licensee and Not Covered by Subpart H;~~
(f~~h~~) Subpart J -- Equipment Leaks (Fugitive Emission Sources) of Benzene;
(g~~i~~) Subpart L -- Benzene Emissions from Coke By-Product Recovery Plants;
(h~~j~~) Subpart N -- Inorganic Arsenic Emissions from Glass Manufacturing Plants;
(i~~k~~) Subpart O -- Inorganic Arsenic Emissions from Primary Copper Smelters;
(j~~l~~) Subpart P -- Inorganic Arsenic Emissions from Arsenic Trioxide and Metal Arsenic Facilities;
(k~~m~~) Subpart V -- Equipment Leaks (Fugitive Emission Sources);
(l~~n~~) Subpart Y -- Benzene Emissions from Benzene Storage Vessels;
(m~~o~~) Subpart BB -- Benzene Emissions from Benzene Transfer Operations; and
(n~~p~~) Subpart FF -- Benzene Waste Operations.
(5) 40 CFR Part 63 Subparts adopted by this rule are titled as follows:
(a) Subpart A -- General Provisions;
(b) Subpart F -- SOCMI;
(c) Subpart G -- SOCMI -- Process Vents, Storage Vessels, Transfer Operations, and Wastewater;
(d) Subpart H -- SOCMI -- Equipment Leaks;
(e) Subpart I -- Certain Processes Subject to the Negotiated Regulation for Equipment Leaks;
(f) Subpart J -- Polyvinyl Chloride and Copolymers Production;
(g) Subpart L -- Coke Oven Batteries;
(h) Subpart M -- Perchloroethylene Air Emission Standards for Dry Cleaning Facilities (as codified in the July 1, 2006 CFR);
(i) Subpart N -- Chromium Emissions from Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks;
(j) Subpart O -- Ethylene Oxide Emissions Standards for Sterilization Facilities;
(k) Subpart Q -- Industrial Process Cooling Towers;
(l) Subpart R -- Gasoline Distribution (Bulk Gasoline Terminals and Pipeline Breakout Stations);
(m) Subpart S -- Pulp and Paper Industry;
(n) Subpart T -- Halogenated Solvent Cleaning;
(o) Subpart U -- Group I Polymers and Resins;
(p) Subpart W -- Epoxy Resins and Non-Nylon Polyamides Production;
(q) Subpart X -- Secondary Lead Smelting;
(r) Subpart Y -- Marine Tank Vessel Loading Operations;
(s) Subpart AA -- Phosphoric Acid Manufacturing Plants;
(t) Subpart BB -- Phosphate Fertilizer Production Plants;
(u) Subpart CC -- Petroleum Refineries;
(v) Subpart DD -- Off-Site Waste and Recovery Operations;
(w) Subpart EE -- Magnetic Tape Manufacturing Operations;
(x) Subpart GG -- Aerospace Manufacturing and Rework Facilities;
(y) Subpart HH -- Oil and Natural Gas Production Facilities;
(z) Subpart II -- Shipbuilding and Ship Repair (Surface Coating);
(aa) Subpart JJ -- Wood Furniture Manufacturing Operations;

(bb) Subpart KK -- Printing and Publishing Industry;
(cc) Subpart LL -- Primary Aluminum Reduction Plants;
(dd) Subpart MM -- Chemical Recovery Combustion Sources at Kraft, Soda, Sulfite and Stand-Alone Semi-Chemical Pulp Mills;
(ee) Subpart OO -- Tanks -- Level 1;
(ff) Subpart PP -- Containers;
(gg) Subpart QQ -- Surface Impoundments;
(hh) Subpart RR -- Individual Drain Systems;
(ii) Subpart SS -- Closed Vent Systems, Control Devices, Recovery Devices and Routing to a Fuel Gas System or a Process;
(jj) Subpart TT -- Equipment Leaks -- Control Level 1;
(kk) Subpart UU -- Equipment Leaks -- Control Level 2;
(ll) Subpart VV -- Oil-Water Separators and Organic-Water Separators;
(mm) Subpart WW -- Storage Vessels (Tanks) -- Control Level 2;
(nn) Subpart XX -- Ethylene Manufacturing Process Units: Heat Exchange Systems and Waste Operations;
(oo) Subpart YY -- Generic Maximum Achievable Control Technology Standards;
(pp) Subpart CCC -- Steel Pickling -- HCl Process Facilities and Hydrochloric Acid Regeneration Plants;
(qq) Subpart DDD -- Mineral Wool Production;
(rr) Subpart EEE -- Hazardous Waste Combustors;
(ss) Subpart GGG -- Pharmaceuticals Production;
(tt) Subpart HHH -- Natural Gas Transmission and Storage Facilities;
(uu) Subpart III -- Flexible Polyurethane Foam Production;
(vv) Subpart JJJ -- Group IV Polymers and Resins;
(ww) Subpart LLL -- Portland Cement Manufacturing Industry;
(xx) Subpart MMM -- Pesticide Active Ingredient Production;
(yy) Subpart NNN -- Wool Fiberglass Manufacturing;
(zz) Subpart OOO -- Manufacture of Amino/Phenolic Resins;
(aaa) Subpart PPP -- Polyether Polyols Production;
(bbb) Subpart QQQ -- Primary Copper Smelting;
(ccc) Subpart RRR -- Secondary Aluminum Production;
(ddd) Subpart TTT -- Primary Lead Smelting;
(eee) Subpart UUU -- Petroleum Refineries -- Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units;
(fff) Subpart VVV -- Publicly Owned Treatment Works;
(ggg) Subpart XXX -- Ferroalloys Production: Ferromanganese and Silicomanganese;
(hhh) Subpart AAAA -- Municipal Solid Waste Landfills;
(iii) Subpart CCCC -- Manufacturing of Nutritional Yeast;
(jjj) Subpart DDDD -- Plywood and Composite Wood Products;
(kkk) Subpart EEEE -- Organic Liquids Distribution (non-gasoline);
(lll) Subpart FFFF -- Miscellaneous Organic Chemical Manufacturing;
(mmm) Subpart GGGG -- Solvent Extraction for Vegetable Oil Production;
(nnn) Subpart HHHH -- Wet Formed Fiberglass Mat Production;
(ooo) Subpart IIII -- Surface Coating of Automobiles and Light-Duty Trucks;

(ppp) Subpart JJJJ -- Paper and Other Web Coating;
(qqq) Subpart KKKK -- Surface Coating of Metal Cans;
(rrr) Subpart MMMM -- Surface Coating of Miscellaneous Metal Parts and Products;
(sss) Subpart NNNN -- Surface Coating of Large Appliances;
(ttt) Subpart OOOO -- Printing, Coating, and Dyeing of Fabrics and Other Textiles;
(uuu) Subpart PPPP -- Surface Coating of Plastic Parts and Products;
(vvv) Subpart QQQQ -- Surface Coating of Wood Building Products;
(www) Subpart RRRR -- Surface Coating of Metal Furniture;
(xxx) Subpart SSSS -- Surface Coating of Metal Coil;
(yyy) Subpart TTTT -- Leather Finishing Operations;
(zzz) Subpart UUUU -- Cellulose Production Manufacturing;
(aaaa) Subpart VVVV -- Boat Manufacturing;
(bbbb) Subpart WWWW -- Reinforced Plastics Composites Production;
(cccc) Subpart XXXX -- Rubber Tire Manufacturing;
(dddd) Subpart YYYY -- Stationary Combustion Turbines;
(eeee) Subpart ZZZZ -- Reciprocating Internal Combustion Engines;
(ffff) Subpart AAAAA -- Lime Manufacturing;
(gggg) Subpart BBBBB -- Semiconductor Manufacturing;
(hhhh) Subpart CCCCC -- Coke Ovens: Pushing, Quenching & Battery Stacks;
~~(iiii) Subpart DDDDD -- Industrial, Commercial, and Institutional Boilers and Process Heaters;~~
(jjjj) Subpart EEEEE -- Iron and Steel Foundries;
(kkkk) Subpart FFFFF -- Integrated Iron and Steel Manufacturing Facilities;
(llll) Subpart GGGGG -- Site Remediation;
(mmmm) Subpart HHHHH -- Misc. Coating Manufacturing;
(nnnn) Subpart IIIII -- Mercury Cell Chlor-Alkali Plants;
(oooo) Subpart JJJJJ -- Brick and Structural Clay Products Manufacturing;
(pppp) Subpart KKKKK -- Clay Ceramics Manufacturing;
(qqqq) Subpart LLLLL -- Asphalt Processing & Asphalt Roofing Manufacturing;
(rrrr) Subpart MMMMM -- Flexible Polyurethane Foam Fabrication Operations;
(ssss) Subpart NNNNN -- Hydrochloric Acid Production;
(tttt) Subpart PPPPP -- Engine Tests Cells/Stands;
(uuuu) Subpart QQQQQ -- Friction Materials Manufacturing Facilities;
(vvvv) Subpart RRRRR -- Taconite Iron Ore Processing;
(wwww) Subpart SSSSS -- Refractory Products Manufacturing;
(xxxx) Subpart TTTTT -- Primary Magnesium Refining;~~.~~
(yyyy) Subpart WWWWW -- Area Sources: Hospital Ethylene Oxide Sterilization;
(zzzz) Subpart YYYYY – Area Sources: Electric Arc Furnace Steelmaking Facilities;
(aaaaa) Subpart ZZZZZ -- Area Sources: Iron and Steel Foundries;
(bbbbb) Subpart BBBBBB -- Area Sources: Gasoline Distribution Bulk Terminals, Bulk Plants, and Pipeline Facilities;
(ccccc) Subpart DDDDDD -- Area Sources: Polyvinyl Chloride and Copolymers Production;
(ddddd) Subpart EEEEEE -- Area Sources: Primary Copper Smelting;
(eeeee) Subpart FFFFFF -- Area Sources: Secondary Copper Smelting;
(fffff) Subpart GGGGGG -- Area Sources: Primary Nonferrous Metals – Zinc, Cadmium, and Beryllium;

(ggggg) Subpart LLLLLL -- Area Sources: Acrylic and Modacrylic Fibers Production;
(hhhhh) Subpart MMMMMM -- Area Sources: Carbon Black Production;
(iiiii) Subpart NNNNNN -- Area Sources: Chemical Manufacturing: Chromium Compounds;
(jjjjj) Subpart OOOOOO -- Area Sources: Flexible Polyurethane Foam Production;
(kkkkk) Subpart PPPPPP -- Area Sources: Lead Acid Battery Manufacturing;
(lllll) Subpart QQQQQQ -- Area Sources: Wood Preserving;
(mmmmm) Subpart RRRRRR -- Area Sources: Clay Ceramics Manufacturing;
(nnnnn) Subpart SSSSSS -- Area Sources: Glass Manufacturing;
(ooooo) Subpart TTTTTT -- Area Sources: Secondary Nonferrous Metals Processing.
[Publications: Publications referenced are available from the agency.]
Stat. Auth.: ORS 468.020
Stats. Implemented: ORS 468A.025
Hist.: [DEQ 16-1995, f. & cert. ef. 6-21-95; DEQ 28-1996, f. & cert. ef. 12-19-96; DEQ 18-1998, f. & cert. ef. 10-5-98]; [DEQ 18-1993, f. & cert. ef. 11-4-93; DEQ 32-1994, f. & cert. ef. 12-22-94]; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-032-0510, 340-032-5520; DEQ 11-2000, f. & cert. ef. 7-27-00; DEQ 15-2001, f. & cert. ef. 12-26-01; DEQ 4-2003, f. & cert. ef. 2-06-03; DEQ 2-2005, f. & cert. ef. 2-10-05; DEQ 2-2006, f. & cert. ef. 3-14-06

DEPARTMENT OF ENVIRONMENTAL QUALITY

DIVISION 228

Mercury Rules ~~F~~for Coal-Fired Power Plants

~~Clean Air~~ Utility Mercury Rule

~~Hg Budget Trading Program~~ General Provisions

340-228-0600
Purpose
This rule establishes the ~~designated representative, permitting, allowance,~~ mandatory reduction levels~~,~~ and monitoring provisions for the Utility Mercury Rule~~mercury (Hg) Budget Trading Program~~, as a means of reducing mercury (Hg) emissions ~~nationally and~~ in Oregon. ~~The Department authorizes the Administrator to assist the Department in implementing the interstate Hg Trading Program by carrying out the functions set forth for the Administrator.~~
Stat. Auth.: ORS 468.020 & 468A.310
Stats. Implemented: ORS 468A.025
Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06

340-228-0601
Applicability
(1) Except as provided in section (2) of this rule:
(a) The following units in the State shall be coal-fired electric generating units subject to the requirements of OAR 340-228-0600 through 0637: Any stationary, coal-fired boiler or stationary, coal-fired combustion turbine serving at any time, since the later of November 15, 1990 or the start-up of the unit's combustion chamber, a generator with nameplate capacity of more than 25 MWe producing electricity for sale.
(b) If a stationary boiler or stationary combustion turbine that, under subsection (1)(a) of this rule, is not a coal-fired electric generating unit begins to combust coal or coal-derived fuel or to serve a generator with nameplate capacity of more than 25 MWe producing electricity for sale, the unit shall become a coal-fired electric generating unit as provided in subsection (1)(a) of this rule on the first date on which it both combusts coal or coal-derived fuel and serves such generator.
(2) The units in the State that meet the requirements set forth in paragraph (2)(a)(A) or subsection (2)(b) of this rule are not coal-fired electric generating units:
(a) Any unit that is a coal-fired electric generating unit under subsection (1)(a) or (b) of this rule:
(A) Qualifying as a cogeneration unit during the 12-month period starting on the date the unit first produces electricity and continuing to qualify as a cogeneration unit; and not serving at any time, since the later of November 15, 1990 or the start-up of the unit's combustion chamber, a generator with nameplate capacity of more than 25 MWe supplying in any calendar year more than one-third of the unit's potential electric output capacity or 219,000 MWh, whichever is greater, to any utility power distribution system for sale.
(B) If a unit qualifies as a cogeneration unit during the 12-month period starting on the date the unit first produces electricity and meets the requirements of paragraph (2)(a)(A) of this rule for at least one calendar year, but subsequently no longer meets all such requirements, the unit shall become a coal-fired

electric generating unit starting on the earlier of January 1 after the first calendar year during which the unit first no longer qualifies as a cogeneration unit or January 1 after the first calendar year during which the unit no longer meets the requirements of paragraph (2)(a)(A) of this rule.
(b) Any unit that is a coal-fired electric generating unit under subsection (1)(a) or (b) of this rule, is a solid waste incineration unit combusting municipal waste, and is subject to the requirements of:
(A) A State Plan approved by the Administrator of the EPA in accordance with 40 CFR part 60 subpart Cb (emissions guidelines and compliance times for certain large municipal waste combustors);
(B) 40 CFR part 60 subpart Eb (standards of performance for certain large municipal waste combustors);
(C) 40 CFR part 60 subpart AAAA (standards of performance for certain small municipal waste combustors);
(D) A State Plan approved by the Administrator of the EPA in accordance with 40 CFR part 60 subpart BBBB (emission guidelines and compliance times for certain small municipal waste combustion units);
(E) 40 CFR part 62 subpart FFF (Federal Plan requirements for certain large municipal waste combustors); or
(F) 40 CFR part 62 subpart JJJ (Federal Plan requirements for certain small municipal waste combustion units).

340-228-0602
Definitions
~~(1) "Account number" means the identification number given by the Administrator to each Hg Allowance Tracking System account.~~
(1~~2~~) "Acid rain emissions limitation" means a limitation on emissions of sulfur dioxide or nitrogen oxides under the Acid Rain Program.
(2~~3~~) "Acid Rain Program" means a multi-state sulfur dioxide and nitrogen oxides air pollution control and emission reduction program established by the Administrator under title IV of the CAA and 40 CFR parts 72 through 78.
~~(4) "Administrator" means the Administrator of the United States Environmental Protection Agency or the Administrator's duly authorized representative.~~
~~(5) "Allocate or allocation" means the determination by the permitting authority or the Administrator of the amount of Hg allowances to be initially credited to a Hg Budget unit or a new unit set-aside under OAR 340-228-0632 through 0636.~~
~~(6) "Allowance transfer deadline" means, for a control period, midnight of March 1, if it is a business day, or, if March 1 is not a business day, midnight of the first business day thereafter immediately following the control period and is the deadline by which a Hg allowance transfer must be submitted for recordation in a Hg Budget source's compliance account in order to be used to meet the source's Hg Budget emissions limitation for such control period in accordance with OAR 340-228-0644.~~
~~(7) "Alternate Hg designated representative" means, for a Hg Budget source and each Hg Budget unit at the source, the natural person who is authorized by the owners and operators of the source and all such units at the source in accordance with OAR 340-228-0612 through 0620, to act on behalf of the Hg designated representative in matters pertaining to the Hg Budget Trading Program.~~
(3~~8~~) "Automated data acquisition and handling system or DAHS" means that component of the continuous emission monitoring system (CEMS), or other emissions monitoring system approved for use under OAR 340-228-06009~~58~~ though 0637~~70~~, designed to interpret and convert individual output signals from pollutant concentration monitors, flow monitors, diluent gas monitors, and other

component parts of the monitoring system to produce a continuous record of the measured parameters in the measurement units required OAR 340-228-0609~~58~~ through 0637~~70~~.
(4) "Biomass" means:
(a) Any organic material grown for the purpose of being converted to energy;
(b) Any organic byproduct of agriculture that can be converted into energy; or
(c) Any material that can be converted into energy and is nonmerchantable for other purposes, that is segregated from other nonmerchantable material, and that is;
(A) A forest-related organic resource, including mill residues, precommercial thinnings, slash, brush, or byproduct from conversion of trees to merchantable material; or
(B) A wood material, including pallets, crates, dunnage, manufacturing and construction materials (other than pressure-treated, chemically-treated, or painted wood products), and landscape or right-of-way tree trimmings.
(5~~9~~) "Boiler" means an enclosed fossil-or other fuel-fired combustion device used to produce heat and to transfer heat to recirculating water, steam, or other medium.
(6~~10~~) "Bottoming-cycle cogeneration unit" means a cogeneration unit in which the energy input to the unit is first used to produce useful thermal energy and at least some of the reject heat from the useful thermal energy application or process is then used for electricity production.
~~(11) "Clean Air Act" or "CAA" means the Clean Air Act, 42 U.S.C. 7401, et seq.~~
(7~~12~~) "Coal" means any solid fuel classified as anthracite, bituminous, subbituminous, or lignite by the American Society of Testing and Materials (ASTM) Standard Specification for Classification of Coals by Rank D388-77, 90, 91, 95, 98a, or 99 (Reapproved 2004) & epsiv; (incorporated by reference, see 40 CFR 60.17).
(8~~13~~) "Coal-derived fuel" means any fuel (whether in a solid, liquid, or gaseous state) produced by the mechanical, thermal, or chemical processing of coal.
(9~~14~~) "Coal-fired" means combusting any amount of coal or coal-derived fuel, alone or in combination with any amount of any other fuel, during any year.
(10~~15~~) "Cogeneration unit" means a stationary, coal-fired boiler or stationary, coal-fired combustion turbine:
(a) Having equipment used to produce electricity and useful thermal energy for industrial, commercial, heating, or cooling purposes through the sequential use of energy; and
(b) Producing during the 12-month period starting on the date the unit first produces electricity and during any calendar year after which the unit first produces electricity:
(A) For a topping-cycle cogeneration unit,
(i) Useful thermal energy not less than 5 percent of total energy output; and
(ii) Useful power that, when added to one-half of useful thermal energy produced, is not less then 42.5 percent of total energy input, if useful thermal energy produced is 15 percent or more of total energy output, or not less than 45 percent of total energy input, if useful thermal energy produced is less than 15 percent of total energy output.
(B) For a bottoming-cycle cogeneration unit, useful power not less than 45 percent of total energy input.
(c) Provided that the total energy input under paragraphs (b)(A)(ii) and (b)(B) of this definition equals the unit's total energy input from all fuel except biomass if the unit is a boiler.
(11~~16~~) "Combustion turbine" means:
(a) An enclosed device comprising a compressor, a combustor, and a turbine and in which the flue gas resulting from the combustion of fuel in the combustor passes through the turbine, rotating the turbine; and

(b) If the enclosed device under paragraph (a) of this definition is combined cycle, any associated heat recovery steam generator and steam turbine.
(12~~17~~) "Commence commercial operation" means, with regard to a unit serving a generator:
(a) To have begun to produce steam, gas, or other heated medium used to generate electricity for sale or use, including test generation~~, except as provided in OAR 340-228-0605~~.
(A) For a unit that is a coal-fired electric generating unit~~Hg Budget unit~~ under OAR 340-228-~~0604~~0601 on the date the unit commences commercial operation as defined in paragraph (a) of this definition and that subsequently undergoes a physical change (other than replacement of the unit by a unit at the same source), such date shall remain the unit's date of commencement of commercial operation.
(B) For a unit that is a coal-fired electric generating unit~~Hg Budget unit~~ under OAR 340-228-~~0604~~0601 on the date the unit commences commercial operation as defined in paragraph (a) of this definition and that is subsequently replaced by a unit at the same source (e.g., repowered), the replacement unit shall be treated as a separate unit with a separate date for commencement of commercial operation as defined in paragraph (a) or (b) of this definition as appropriate.
(b) Notwithstanding paragraph (a) of this definition~~and except as provided in OAR 340-228-0605~~, for a unit that is not a coal-fired electric generating unit~~Hg Budget unit~~ under OAR 340-228-~~0604~~0601 on the date the unit commences commercial operation as defined in paragraph (a) of this definition, the unit's date for commencement of commercial operation shall be the date on which the unit becomes a coal-fired electric generating unit~~Hg Budget unit~~ under OAR 340-228-~~0604~~0601.
(A) For a unit with a date for commencement of commercial operation as defined in paragraph (b) of this definition and that subsequently undergoes a physical change (other than replacement of the unit by a unit at the same source), such date remains the unit's date of commencement of commercial operation.
(B) For a unit with a date for commencement of commercial operation as defined in paragraph (b) of this definition and that is subsequently replaced by a unit at the same source (e.g., repowered), the replacement unit shall be treated as a separate unit with a separate date for commencement of commercial operation as defined in paragraph (a) or (b) of this definition as appropriate.
(13~~18~~) "Commence operation" means:
(a) To have begun any mechanical, chemical, or electronic process, including, with regard to a unit, start-up of a unit's combustion chamber~~, except as provided in OAR 340-228-0605~~.
(A) For a unit that is a coal-fired electric generating unit~~Hg Budget unit~~ under OAR 340-228-~~0604~~0601 on the date the unit commences operation as defined in paragraph (a) of this definition and that subsequently undergoes a physical change (other than replacement of the unit by a unit at the same source), such date shall remain the unit's date of commencement of operation.
(B) For a unit that is a coal-fired electric generating unit~~Hg Budget unit~~ under OAR 340-228-~~0604~~0601 on the date the unit commences operation as defined in paragraph (a) of this definition and that is subsequently replaced by a unit at the same source (e.g., repowered), the replacement unit shall be treated as a separate unit with a separate date for commencement of operation as defined in paragraph (a) or (b) of this definition as appropriate.
(b) Notwithstanding paragraph (a) of this definition~~and except as provided in OAR 340-228-0605~~, for a unit that is not a coal-fired electric generating unit~~Hg Budget unit~~ under OAR 340-228-~~0604~~0601 on the date the unit commences operation as defined in paragraph (a) of this definition, the unit's date for commencement of operation shall be the date on which the unit becomes a coal-fired electric generating unit~~Hg Budget unit~~ under OAR 340-228-~~0604~~0601.

(A) For a unit with a date for commencement of operation as defined in paragraph (b) of this definition and that subsequently undergoes a physical change (other than replacement of the unit by a unit at the same source), such date shall remain the unit's date of commencement of operation.

(B) For a unit with a date for commencement of operation as defined in paragraph (b) of this definition and that is subsequently replaced by a unit at the same source (e.g., repowered), the replacement unit shall be treated as a separate unit with a separate date for commencement of operation as defined in paragraph (a) or (b) of this definition as appropriate.

(14~~19~~) "Common stack" means a single flue through which emissions from 2 or more units are exhausted.

~~(20) "Compliance account" means a Hg Allowance Tracking System account, established by the Administrator for a Hg Budget source under OAR 340-228-0638 through 0650, in which any Hg allowance allocations for the Hg Budget units at the source are initially recorded and in which are held any Hg allowances available for use for a control period in order to meet the source's Hg Budget emissions limitation in accordance with OAR 340-228-0644.~~

(15~~21~~) "Continuous emission monitoring system" or "CEMS" means the equipment required under OAR 340-228-0609~~58~~ through 0637~~70~~ to sample, analyze, measure, and provide, by means of readings recorded at least once every 15 minutes (using an automated data acquisition and handling system (DAHS)), a permanent record of Hg emissions, stack gas volumetric flow rate, stack gas moisture content, and oxygen or carbon dioxide concentration (as applicable), in a manner consistent with **40 CFR part 75** **and OAR 340-228-0609 through 0637**. The following systems are the principal types of CEMS required under OAR 340-228-0609~~58~~ through 0637~~70~~:

(a) A flow monitoring system, consisting of a stack flow rate monitor and an automated data acquisition and handling system and providing a permanent, continuous record of stack gas volumetric flow rate, in units of standard cubic feet per hour (scfh);

(b) A Hg concentration monitoring system, consisting of a Hg pollutant concentration monitor and an automated data acquisition and handling system and providing a permanent, continuous record of Hg emissions in units of micrograms per dry standard cubic meter (μg/dscm);

(c) A moisture monitoring system, as defined in **40 CFR 75.11(b)(2)** and providing a permanent, continuous record of the stack gas moisture content, in percent H2O.

(d) A carbon dioxide monitoring system, consisting of a CO_2 concentration monitor (or an oxygen monitor plus suitable mathematical equations from which the CO_2 concentration is derived) and an automated data acquisition and handling system and providing a permanent, continuous record of CO_2 emissions, in percent CO_2; and

(e) An oxygen monitoring system, consisting of an O_2 concentration monitor and an automated data acquisition and handling system and providing a permanent, continuous record of O_2, in percent O_2.

~~(22) "Control period" means the period beginning January 1 of a calendar year and ending on December 31 of the same year, inclusive.~~

(16~~23~~) "Emissions" means air pollutants exhausted from a unit or source into the atmosphere, as measured, recorded, and reported to the Department~~Administrator~~ by the owner or operator~~Hg designated representative~~ and as determined by the Department~~Administrator~~ in accordance with OAR 340-228-0609~~58~~ through 0637~~70~~.

~~(24) "Excess emissions" means any ounce of mercury emitted by the Hg Budget units at a Hg Budget source during a control period that exceeds the Hg Budget emissions limitation for the source.~~

~~(25) "General account" means a Hg Allowance Tracking System account, established under OAR 340-228-0638, that is not a compliance account.~~

(17~~26~~) "Generator" means a device that produces electricity.

~~(27) "Gross electrical output" means, with regard to a cogeneration unit, electricity made available for use, including any such electricity used in the power production process (which process includes, but is not limited to, any on-site processing or treatment of fuel combusted at the unit and any on-site emission controls).~~

(18~~28~~) "Heat input" means, with regard to a specified period of time, the product (in MMBtu/time) of the gross calorific value of the fuel (in Btu/lb) divided by 1,000,000 Btu/MMBtu and multiplied by the fuel feed rate into a combustion device (in lb of fuel/time), as measured, recorded, and reported to the Department~~Administrator~~ by the owner or operator~~Hg designated representative~~ and determined by the Department~~Administrator~~ in accordance with OAR 340-228-0609~~58~~ through 0637~~70~~ and excluding the heat derived from preheated combustion air, recirculated flue gases, or exhaust from other sources.

(19~~29~~) "Heat input rate" means the amount of heat input (in MMBtu) divided by unit operating time (in hr) or, with regard to a specific fuel, the amount of heat input attributed to the fuel (in MMBtu) divided by the unit operating time (in hr) during which the unit combusts the fuel.

(20) "Hg CEMS" means a Hg pollutant concentration monitor and an automated DAHS. A Hg CEMS provides a permanent, continuous record of Hg emissions in units of micrograms per standard cubic meter (µg/m3).

~~(30) "Hg allowance" means a limited authorization issued by the permitting authority or the Administrator under OAR 340-228-0632 through 0636 to emit one ounce of mercury during a control period of the specified calendar year for which the authorization is allocated or of any calendar year thereafter under the Hg Budget Trading Program. An authorization to emit mercury that is not issued under the provisions of a State plan that adopt the requirements of this rule and are approved by the Administrator in accordance with 40 CFR 60.24(h)(6) shall not be a "Hg allowance."~~

~~(31) "Hg allowance deduction or deduct Hg allowances" means the permanent withdrawal of Hg allowances by the Administrator from a compliance account in order to account for a specified number of ounces of total mercury emissions from all Hg Budget units at a Hg Budget source for a control period, determined in accordance with OAR 340-228-0638 though 0650 and 340-228-0658 through 0670, or to account for excess emissions.~~

~~(32) "Hg allowances held or hold Hg allowances" means the Hg allowances recorded by the Administrator, or submitted to the Administrator for recordation, in accordance with OAR 340-228-0638 through 0656, in a Hg Allowance Tracking System account.~~

~~(33) "Hg Allowance Tracking System" means the system by which the Administrator records allocations, deductions, and transfers of Hg allowances under the Hg Budget Trading Program. Such allowances will be allocated, held, deducted, or transferred only as whole allowances.~~

~~(34) "Hg Allowance Tracking System account" means an account in the Hg Allowance Tracking System established by the Administrator for purposes of recording the allocation, holding, transferring, or deducting of Hg allowances.~~

~~(35) "Hg authorized account representative" means, with regard to a general account, a responsible natural person who is authorized, in accordance with OAR 340-228-0640, to transfer and otherwise dispose of Hg allowances held in the general account and, with regard to a compliance account, the Hg designated representative of the source.~~

~~(36) "Hg Budget emissions limitation" means, for a Hg Budget source, the equivalent in ounces of the Hg allowances available for deduction for the source under OAR 340-228-0644(1) and (2) for a control period.~~

~~(37) "Hg Budget permit" means the legally binding and Federally enforceable written document, or portion of such document, issued by the permitting authority under OAR 340-228-0622 through 0630, including any permit revisions, specifying the Hg Budget Trading Program requirements applicable to a Hg Budget source, to each Hg Budget unit at the source, and to the owners and operators and the Hg designated representative of the source and each such unit.~~
~~(38) "Hg Budget source" means a source that includes one or more Hg Budget units.~~
~~(39) "Hg Budget Trading Program" means a multi-state Hg air pollution control and emission reduction program approved and administered by the Administrator in accordance with this rule and 40 CFR 60.24(h)(6), as a means of reducing national Hg emissions.~~
~~(40) "Hg Budget unit" means a unit that is subject to the Hg Budget Trading Program under OAR 340-228-0604.~~
~~(41) "Hg designated representative" means, for a Hg Budget source and each Hg Budget unit at the source, the natural person who is authorized by the owners and operators of the source and all such units at the source, in accordance with OAR 340-228-0612 through 0620, to represent and legally bind each owner and operator in matters pertaining to the Hg Budget Trading Program.~~
(21~~42~~) "Life-of-the-unit, firm power contractual arrangement" means a unit participation power sales agreement under which a utility or industrial customer reserves, or is entitled to receive, a specified amount or percentage of nameplate capacity and associated energy generated by any specified unit and pays its proportional amount of such unit's total costs, pursuant to a contract:
(a) For the life of the unit;
(b) For a cumulative term of no less than 30 years, including contracts that permit an election for early termination; or
(c) For a period no less than 25 years or 70 percent of the economic useful life of the unit determined as of the time the unit is built, with option rights to purchase or release some portion of the nameplate capacity and associated energy generated by the unit at the end of the period.
(22~~43~~) "Lignite" means coal that is classified as lignite A or B according to the American Society of Testing and Materials (ASTM) Standard Specification for Classification of Coals by Rank D338-77, 90, 91, 95, 98a, or 99 (Reapproved 2004) & epsiv; (incorporated by reference, see 40 CFR 60.17).
(23~~44~~) "Maximum design heat input" means, starting from the initial installation of a unit, the maximum amount of fuel per hour (in Btu/hr) that a unit is capable of combusting on a steady-state basis as specified by the manufacturer of the unit, or, starting from the completion of any subsequent physical change in the unit resulting in a decrease in the maximum amount of fuel per hour (in Btu/hr) that a unit is capable of combusting on a steady-state basis, such decreased maximum amount as specified by the person conducting the physical change.
(24) “Maximum expected Hg concentration (MEC)” means, the maximum expected Hg concentration (MEC) during normal, stable operation of the unit and emission controls. To calculate the MEC, substitute the MPC value from section (25) of this rule into Equation A–2 in section 2.1.1.2 of **appendix A to 40 CFR part 75**. Base the percent removal efficiency on design engineering calculations.
(25) “Maximum potential Hg concentration (MPC)” means the following:
(a) The maximum potential concentration depends upon the type of coal combusted. For the initial MPC determination, the MPC is one of the following:
(A) The MPC is one of the following default values: 9 µg/~~sc~~m3 for bituminous coal; 10 µg/~~sc~~m3 for sub-bituminous coal; 16 µg/~~sc~~m3 for lignite, and 1 µg/~~sc~~m3 for waste coal. If different coals are blended, the MPC is the highest MPC for any fuel in the blend; or

(B) The MPC may be based on the results of site-specific emission testing using one of the Hg reference methods in section (33) of this rule or in **40 CFR 75.22**, if the unit does not have add-on Hg emission controls, or if testing upstream of these control devices. A minimum of 3 test runs are required, at the normal operating load. The highest total Hg concentration obtained in any of the tests may be used as the MPC; or

(C) The MPC is based on the maximum potential Hg concentration on 720 or more hours of historical CEMS data or data from a sorbent trap monitoring system, if the unit does not have add-on Hg emission controls (or if the CEMS or sorbent trap system is located upstream of the control device) and if the Hg CEMS or sorbent trap system has been tested for relative accuracy against one of the Hg reference methods in section (33) of this rule or in **40 CFR 75.22** and has met a relative accuracy specification of 20.0% or less.

(b) For the purposes of missing data substitution, the fuel-specific or site-specific MPC values defined in subsection (25)(a) of this rule apply to units using sorbent trap monitoring systems.

(26~~45~~) "Monitoring system" means any monitoring system that meets the requirements of OAR 340-228-06009~~58~~ through 06337~~70~~, including a continuous emissions monitoring system~~,~~ or an alternative monitoring system~~, or an excepted monitoring system~~ under **40 CFR part 75**.

(27~~46~~) "Nameplate capacity" means, starting from the initial installation of a generator, the maximum electrical generating output (in MWe) that the generator is capable of producing on a steady-state basis and during continuous operation (when not restricted by seasonal or other deratings) as specified by the manufacturer of the generator or, starting from the completion of any subsequent physical change in the generator resulting in an increase in the maximum electrical generating output (in MWe) that the generator is capable of producing on a steady-state basis and during continuous operation (when not restricted by seasonal or other deratings), such increased maximum amount as specified by the person conducting the physical change.

(28) "NIST traceable elemental Hg standards" means either:

(a) Compressed gas cylinders having known concentrations of elemental Hg, which have been prepared according to the "EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards"; or

(b) Calibration gases having known concentrations of elemental Hg, produced by a generator that fully meets the performance requirements of the "EPA Traceability Protocol for Qualification and Certification of Elemental Mercury Gas Generators".

(29) "NIST traceable source of oxidized Hg" means a generator that: Is capable of providing known concentrations of vapor phase mercuric chloride (HgCl2), and that fully meets the performance requirements of the "EPA Traceability Protocol for Qualification and Certification of Oxidized Mercury Gas Generators".

(30~~47~~) "Operator" means any person who operates, controls, or supervises a coal-fired electric generating unit~~Hg Budget unit or a Hg Budget source~~ and shall include, but not be limited to, any holding company, utility system, or plant manager of such a unit or source.

~~(48) "Ounce" means 2.8410^{7} micrograms. For the purpose of determining compliance with the Hg Budget emissions limitation, total ounces of mercury emissions for a control period shall be calculated as the sum of all recorded hourly emissions (or the mass equivalent of the recorded hourly emission rates) in accordance with OAR 340-228-0658 through 0670, but with any remaining fraction of an ounce equal to or greater than 0.50 ounces deemed to equal one ounce and any remaining fraction of an ounce less than 0.50 ounces deemed to equal zero ounces.~~

(31~~49~~) "Owner" means any of the following persons:

~~(a) With regard to a Hg Budget source or a Hg Budget unit at a source, respectively:~~
(a~~A~~) Any holder of any portion of the legal or equitable title in a coal-fired electric generating unit~~Hg Budget unit at the source or the Hg Budget unit~~;
(b~~B~~) Any holder of a leasehold interest in a coal-fired electric generating unit~~Hg Budget unit at the source or the Hg Budget unit~~; or
(c~~C~~) Any purchaser of power from a coal-fired electric generating unit~~Hg Budget unit at the source or the Hg Budget unit~~ under a life-of-the-unit, firm power contractual arrangement; provided that, unless expressly provided for in a leasehold agreement, owner shall not include a passive lessor, or a person who has an equitable interest through such lessor, whose rental payments are not based (either directly or indirectly) on the revenues or income from such coal-fired electric generating unit.~~Hg Budget unit; or~~
~~(b) With regard to any general account, any person who has an ownership interest with respect to the Hg allowances held in the general account and who is subject to the binding agreement for the Hg authorized account representative to represent the person's ownership interest with respect to Hg allowances.~~
~~(50) Permitting authority means the State air pollution control agency, local agency, other State agency, or other agency authorized by the Administrator to issue or revise permits to meet the requirements of the Hg Budget Trading Program in accordance with 40 CFR 340-228-0622 through 0630 or, if no such agency has been so authorized, the Administrator.~~
(32~~51~~) "Potential electrical output capacity" means 33 percent of a unit's maximum design heat input, divided by 3,413 Btu/kWh, divided by 1,000 kWh/MWh, and multiplied by 8,760 hr/yr.
~~(52) "Receive or receipt of" means, when referring to the permitting authority or the Administrator, to come into possession of a document, information, or correspondence (whether sent in hard copy or by authorized electronic transmission), as indicated in an official correspondence log, or by a notation made on the document, information, or correspondence, by the permitting authority or the Administrator in the regular course of business.~~
~~(53) "Recordation, record, or recorded" means, with regard to Hg allowances, the movement of Hg allowances by the Administrator into or between Hg Allowance Tracking System accounts, for purposes of allocation, transfer, or deduction.~~
(33~~54~~) "Reference method" means any direct test method of sampling and analyzing for an air pollutant as follows or as specified in **40 CFR 75.22**.
(a) ASTM D6784–02, "Standard Test Method for Elemental, Oxidized, Particle-Bound, and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources" (Ontario Hydro Method) is the reference method for determining Hg concentration.
(b) Method 29 (40 CFR Part 60, Appendix A-8) for determining Hg concentration.
(c) Method 30A (40 CFR Part 60, Appendix A), "Determination of Total Vapor Phase Mercury Emissions from Stationary Sources (Instrumental Analyzer Procedure)" for determining Hg concentration.
(d) Method 30B (40 CFR Part 60, Appendix A), "Determination of Total Vapor Phase Mercury Emissions from Coal-Fired Combustion Sources Using Carbon Sorbent Traps" for determining Hg concentration.
(e) Method 29 (40 CFR Part 60, Appendix A-8) may be used with these caveats: The procedures for preparation of Hg standards and sample analysis in sections 13.4.1.1 through 13.4.1.3 ASTM D6784–02 must be followed instead of the procedures in sections 7.5.33 and 11.1.3 of Method 29, and the QA/QC procedures in section 13.4.2 of ASTM D6784–02 must be performed instead of the procedures in section 9.2.3 of Method 29. The tester may also opt to use the sample recovery and preparation

procedures in ASTM D6784–02 instead of the Method 29 procedures, as follows: sections 8.2.8 and 8.2.9.1 of Method 29 may be replaced with sections 13.2.9.1 through 13.2.9.3 of ASTM D6784–02; sections 8.2.9.2 and 8.2.9.3 of Method 29 may be replaced with sections 13.2.10.1 through 13.2.10.4 of ASTM D6784–02; section 8.3.4 of Method 29 may be replaced with section 13.3.4 or 13.3.6 of ASTM D6784–02 (as appropriate); and section 8.3.5 of Method 29 may be replaced with section 13.3.5 or 13.3.6 of ASTM D6784–02 (as appropriate).

(f) Whenever ASTM D6784–02 or Method 29 is used, paired sampling trains are required. To validate a RATA run or an emission test run, the relative deviation (RD), calculated according to OAR 340-228-0627(12)(g), must not exceed 10 percent, when the average concentration is greater than 1.0 µg/m3. If the average concentration is ≤1.0 µg/m3, the RD must not exceed 20 percent. The RD results are also acceptable if the absolute difference between the Hg concentrations measured by the paired trains does not exceed 0.03 µg/m3. If the RD criterion is met, the run is valid. For each valid run, average the Hg concentrations measured by the two trains (vapor phase, only).

(g) When Method 29 or ASTM D6784–02 is used for the Hg emission testing required under OAR 340-228-0613(3) and (4), locate the reference method test points according to section 8.1 of Method 30A, and if Hg stratification testing is part of the test protocol, follow the procedures in sections 8.1.3 through 8.1.3.5 of Method 30A.

(34~~55~~) "Repowered" means, with regard to a unit, replacement of a coal-fired boiler with one of the following coal-fired technologies at the same source as the coal-fired boiler:

(a) Atmospheric or pressurized fluidized bed combustion;

(b) Integrated gasification combined cycle;

(c) Magnetohydrodynamics;

(d) Direct and indirect coal-fired turbines;

(e) Integrated gasification fuel cells; or

(f) As determined by the Department~~Administrator~~ in consultation with the Secretary of Energy, a derivative of one or more of the technologies under paragraphs (a) through (e) of this definition and any other coal-fired technology capable of controlling multiple combustion emissions simultaneously with improved boiler or generation efficiency and with significantly greater waste reduction relative to the performance of technology in widespread commercial use as of January 1, 2005.

~~(56) "Serial number" means, for a Hg allowance, the unique identification number assigned to each Hg allowance by the Administrator.~~

(35~~57~~) "Sequential use of energy" means:

(a) For a topping-cycle cogeneration unit, the use of reject heat from electricity production in a useful thermal energy application or process; or

(b) For a bottoming-cycle cogeneration unit, the use of reject heat from useful thermal energy application or process in electricity production.

(36) “Sorbent trap monitoring system” means the equipment required for the continuous monitoring of Hg emissions, using paired sorbent traps containing iodinized charcoal (IC) or other suitable reagent(s). This excepted monitoring system consists of a probe, the paired sorbent traps, a heated umbilical line, moisture removal components, an airtight sample pump, a dry gas meter, and an automated data acquisition and handling system. The monitoring system samples the stack gas at a rate proportional to the stack gas volumetric flow rate. The sampling is a batch process. Using the sample volume measured by the dry gas meter and the results of the analyses of the sorbent traps, the average Hg concentration in the stack gas for the sampling period is determined, in units of micrograms per dry standard cubic meter (µg/dscm). Mercury mass emissions for each hour in the sampling period are calculated using the

average Hg concentration for that period, in conjunction with contemporaneous hourly measurements of the stack gas flow rate, corrected for the stack gas moisture content.
~~(358) "Source" means all buildings, structures, or installations located in one or more contiguous or adjacent properties under common control for the same person or persons. For purposes of section 502(c) of the CAA, a "source" including "a source" with multiple units, shall be considered a single "facility".~~
~~(59) "State" means:~~
~~(a) For purposes of referring to a governing entity, one of the States in the United States, the District of Columbia, or, if approved for treatment as a State under 40 CFR part 49, the Navajo Nation or Ute Indian Tribe that adopts the Hg Budget Trading Program pursuant to 40 CFR 60.24(h)(6); or~~
~~(b) For purposes of referring to geographic areas, one of the States in the United States, the District of Columbia, the Navajo Nation Indian country, or the Ute Tribe Indian country.~~
(37~~60~~) "Subbituminous" means coal that is classified as subbituminous A, B, or C, according to the American Society of Testing and Materials (ASTM) Standard Specification for Classification of Coals by Rank D388-77, 90, 91, 95, 98a, or 99 (Reapproved 2004)~~ & epsiv;~~ (incorporated by reference, see 40 CFR 60.17).
(38~~61~~) "Submit or serve" means to send or transmit a document, information, or correspondence to the person specified in accordance with the applicable regulation:
(a) In person;
(b) By United States Postal Service; or
(c) By other means of dispatch or transmission and delivery. Compliance with any "submission" or "service" deadline shall be determined by the date of dispatch, transmission, or mailing and not the date of receipt.
(39~~62~~) "Title V operating permit" means a permit issued under title V of the CAA and 40 CFR part 70 or 71.
(40~~63~~) "Title V operating permit regulations" means the regulations that the Administrator has approved or issued as meeting the requirements of title V of the CAA and 40 CFR part 70 or 71.
(41~~64~~) "Topping-cycle cogeneration unit" means a cogeneration unit in which the energy input to the unit is first used to produce useful power, including electricity, and at least some of the reject heat from the electricity production is then used to provide useful thermal energy.
(42~~65~~) "Total energy input" means, with regard to a cogeneration unit, total energy of all forms supplied to the cogeneration unit, excluding energy produced by the cogeneration unit itself. Each form of energy supplied shall be measured by the lower heating value of that form of energy calculated as follows:

$$LHV = HHV - 10.55(W + 9H)$$

Where:
LHV = lower heating value of fuel in Btu/lb,
HHV = higher heating value of fuel in Btu/lb,
W = Weight % of moisture in fuel, and
H = Weight % of hydrogen in fuel.
(43~~66~~) "Total energy output" means, with regard to a cogeneration unit, the sum of useful power and useful thermal energy produced by the cogeneration unit.
(44~~67~~) "Unit" means a stationary coal-fired boiler or a stationary coal-fired combustion turbine.

(45~~68~~) "Unit operating day" means a calendar day in which a unit combusts any fuel.

(46~~69~~) "Unit operating hour" or "hour of unit operation" means an hour in which a unit combusts any fuel.

(47~~70~~) "Useful power" means, with regard to a cogeneration unit, electricity or mechanical energy made available for use, excluding any such energy used in the power production process (which process includes, but is not limited to, any on-site processing or treatment of fuel combusted at the unit and any on-site emission controls).

(48~~71~~) "Useful thermal energy" means, with regard to a cogeneration unit, thermal energy that is:

(a) Made available to an industrial or commercial process (not a power production process), excluding any heat contained in condensate return or makeup water;

(b) Used in a heat application (e.g., space heating or domestic hot water heating); or

(c) Used in a space cooling application (i.e., thermal energy used by an absorption chiller).

(49~~72~~) "Utility power distribution system" means the portion of an electricity grid owned or operated by a utility and dedicated to delivering electricity to customers.

Stat. Auth.: ORS 468.020 & 468A.310

Stats. Implemented: ORS 468A.025

Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06

340-228-0603

Measurements, Abbreviations, and Acronyms~~Untitled~~

Measurements, abbreviations, and acronyms used in this part are defined as follows:

(1) Btu-British thermal unit.

(2) CO_2-carbon dioxide.

(3) dscm-dry standard cubic meter.

(4~~3~~) H_2O-water.

(5~~4~~) Hg-mercury.

(6~~5~~) hr-hour.

(7~~6~~) kW-kilowatt electrical.

(8~~7~~) kWh-kilowatt hour.

(9~~8~~) lb-pound.

(10) m3-standard cubic meter.

(11~~9~~) MMBtu-million Btu.

(12~~0~~) MWe-megawatt electrical.

(13~~1~~) MWh-megawatt hour.

(14~~2~~) NO_X-nitrogen oxides.

(15~~3~~) O_2-oxygen.

(16~~4~~) ppm-parts per million.

(17) scf-standard cubic foot.

(18~~6~~) scfh-standard cubic feet per hour.

(19~~6~~) SO_2-sulfur dioxide.

(20) µg-micrograms.

(21) wscm-wet standard cubic meter.

(22) yr-year.

Stat. Auth.: ORS 468.020 & 468A.310
Stats. Implemented: ORS 468A.025
Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06

~~340-228-0604~~
~~Applicability~~
~~(1) Except as provided in section (2) of this rule:~~
~~(a) The following units in the State shall be Hg Budget units, and any source that includes one or more such units shall be a Hg Budget source, subject to the requirements of OAR 340-228-0600 through 0678 and 40 CFR part 60 subparts BB through HH: Any stationary, coal-fired boiler or stationary, coal-fired combustion turbine serving at any time, since the later of November 15, 1990 or the start-up of the unit's combustion chamber, a generator with nameplate capacity of more than 25 MWe producing electricity for sale.~~
~~(b) If a stationary boiler or stationary combustion turbine that, under subsection (1)(a) of this rule, is not a Hg Budget unit begins to combust coal or coal-derived fuel or to serve a generator with nameplate capacity of more than 25 MWe producing electricity for sale, the unit shall become a Hg Budget unit as provided in subsection (1)(a) of this rule on the first date on which it both combusts coal or coal-derived fuel and serves such generator.~~
~~(2) The units in the State that meet the requirements set forth in paragraph (2)(a)(A) or subsection (2)(b) of this rule are not Hg Budget units:~~
~~(a)(A) Any unit that is a Hg Budget unit under subsection (1)(a) or (b) of this rule:~~
~~(i) Qualifying as a cogeneration unit during the 12-month period starting on the date the unit first produces electricity and continuing to qualify as a cogeneration unit; and~~
~~(ii) Not serving at any time, since the later of November 15, 1990 or the start-up of the unit's combustion chamber, a generator with nameplate capacity of more than 25 MWe supplying in any calendar year more than one-third of the unit's potential electric output capacity or 219,000 MWh, whichever is greater, to any utility power distribution system for sale.~~
~~(B) If a unit qualifies as a cogeneration unit during the 12-month period starting on the date the unit first produces electricity and meets the requirements of paragraph (2)(a)(A) of this rule for at least one calendar year, but subsequently no longer meets all such requirements, the unit shall become a Hg Budget unit starting on the earlier of January 1 after the first calendar year during which the unit first no longer qualifies as a cogeneration unit or January 1 after the first calendar year during which the unit no longer meets the requirements of subparagraph (2)(a)(A)(ii) of this rule.~~
~~(b) Any unit that is a Hg Budget unit under subsection (1)(a) or (b) of this rule, is a solid waste incineration unit combusting municipal waste, and is subject to the requirements of:~~
~~(A) A State Plan approved by the Administrator in accordance with 40 CFR part 60 subpart Cb (emissions guidelines and compliance times for certain large municipal waste combustors);~~
~~(B) 40 CFR part 60 subpart Eb (standards of performance for certain large municipal waste combustors);~~
~~(C) 40 CFR part 60 subpart AAAA (standards of performance for certain small municipal waste combustors);~~
~~(D) A State Plan approved by the Administrator in accordance with 40 CFR part 60 subpart BBBB (emission guidelines and compliance times for certain small municipal waste combustion units);~~
~~(E) 40 CFR part 62 subpart FFF (Federal Plan requirements for certain large municipal waste combustors); or~~

~~(F) 40 CFR part 62 subpart JJJ (Federal Plan requirements for certain small municipal waste combustion units).~~
~~Stat. Auth.: ORS 468.020 & 468A.310~~
~~Stats. Implemented: ORS 468A.025~~
~~Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06~~

~~340-228-0605~~
~~Retired Unit Exemption~~
~~(1)(a) Any Hg Budget unit that is permanently retired is exempt from the Hg Budget Trading Program, except for the provisions of this rule, OAR 340-228-0602, 0604, 0606(3)(d) through (h), 0608, and 0638 through 0656.~~
~~(b) The exemption under subsection (1)(a) of this rule becomes effective the day on which the Hg Budget unit is permanently retired. Within 30 days of the unit's permanent retirement, the Hg designated representative must submit a statement to the Department and must submit a copy of the statement to the Administrator. The statement must state, in a format prescribed by the Department, that the unit was permanently retired on a specific date and will comply with the requirements of section (2) of this rule.~~
~~(c) After receipt of the statement under subsection (1)(b) of this rule, the Department will amend any permit under OAR 340-228-0622 through 0630 covering the source at which the unit is located to add the provisions and requirements of the exemption under subsection (1)(a) and subsection (2) of this rule.~~
~~(2) Special provisions.~~
~~(a) A unit exempt under section (1) of this rule must not emit any mercury, starting on the date that the exemption takes effect.~~
~~(b) The Department will reallocate Hg allowances from a unit exempt under section (1) of this rule in accordance with OAR 340-228-0632 through 0636.~~
~~(bc) For a period of 5 years from the date the records are created, the owners and operators of a unit exempt under section (1) of this rule must retain at the source that includes the unit, records demonstrating that the unit is permanently retired. The 5-year period for keeping records may be extended for cause, at any time before the end of the period, in writing by the Department or the Administrator. The owners and operators bear the burden of proof that the unit is permanently retired.~~
~~(d) The owners and operators and, to the extent applicable, the Hg designated representative of a unit exempt under section (1) of this rule must comply with the requirements of the Hg Budget Trading Program concerning all periods for which the exemption is not in effect, even if such requirements arise, or must be complied with, after the exemption takes effect.~~
~~(e) A unit exempt under section (1) of this rule and located at a source that is required, or but for this exemption would be required, to have a title V operating permit must not resume operation unless the Hg designated representative of the source submits a complete Hg Budget permit application under OAR 340-228-0626 for the unit not less than 18 months (or such lesser time provided by the Department) before the later of January 1, 2010 or the date on which the unit resumes operation.~~
~~(cf) On the earlier of the following dates, aA unit exempt under section (1) of this rule will lose its exemption:~~
~~(A) The date on which the Hg designated representative submits a Hg Budget permit application for the unit under subsection (2)(e) of this rule;~~
~~(B) The date on which the Hg designated representative is required under subsection (2)(e) of this rule to submit a Hg Budget permit application for the unit; or~~

~~(C) Tthe date on which the unit resumes operation, if the Hg designated representative is not required to submit a Hg Budget permit application for the unit.~~
~~(dg) For the purpose of applying monitoring, reporting, and recordkeeping requirements under OAR 340-228-0658 through 0670, a unit that loses its exemption under section (1) of this rule will be treated as a unit that commences operation and commercial operation on the first date on which the unit resumes operation.~~
~~Stat. Auth.: ORS 468.020 & 468A.310~~
~~Stats. Implemented: ORS 468A.025~~
~~Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06~~

340-228-0606
Hg Emission Standards ~~Requirements~~
~~(1) Permit Requirements.~~
~~(a) The Hg designated representative of each Hg Budget source required to have a title V operating permit and each Hg Budget unit required to have a title V operating permit at the source must:~~
~~(A) Submit to the Department a complete Hg Budget permit application under OAR 340-228-0626 in accordance with the deadlines specified in OAR 340-228-0624(1) and (2); and~~
~~(B) Submit in a timely manner any supplemental information that the Department determines is necessary in order to review a Hg Budget permit application and issue or deny a Hg Budget permit.~~
~~(b) The owners and operators of each Hg Budget source required to have a title V operating permit and each Hg Budget unit required to have a title V operating permit at the source must have a Hg Budget permit issued by the Department under OAR 340-228-0622 through 0630 for the source and operate the source and the unit in compliance with such Hg Budget permit.~~
~~(c) The owners and operators of a Hg Budget source that is not required to have a title V operating permit and each Hg Budget unit that is not required to have a title V operating permit are not required to submit a Hg Budget permit application, and to have a Hg Budget permit, under OAR 340-228-0622 through 0630 for such Hg Budget source and such Hg Budget unit.~~
~~(2) Monitoring, reporting, and recordkeeping requirements.~~
~~(a) The owners and operators, and the Hg designated representative, of each Hg Budget source and each Hg Budget unit at the source must comply with the applicable monitoring, reporting, and recordkeeping requirements of OAR 340-228-0658 through 0670.~~
~~(b) The emissions measurements recorded and reported in accordance with OAR 340-228-0658 through 0670 must be used to determine compliance by each Hg Budget source with the Hg Budget emissions limitation under section (3) of this rule.~~
~~(3) Mercury emission requirements. The following mercury emission requirements shall apply to each Hg Budget unit for the control periods of 2010 through 2017. For the control periods of 2018 and thereafter, each Hg Budget unit must comply with the applicable emission cap in OAR 340-228-0672.~~
~~(a) As of the allowance transfer deadline for a control period, the owners and operators of each Hg Budget source and each Hg Budget unit at the source must hold, in the source's compliance account, Hg allowances available for compliance deductions for the control period under OAR 340-228-0644(1) in an amount not less than the ounces of total mercury emissions for the control period from all Hg Budget units at the source, as determined in accordance with OAR 340-228-0658 through 0670.~~
~~(b) A Hg Budget unit is subject to the requirements under subsection (3)(a) of this rule starting on the later of January 1, 2010 or the deadline for meeting the unit's monitor certification requirements under OAR 340-228-0658(2)(a)(A) or (B).~~

~~(c) A Hg allowance must not be deducted, for compliance with the requirements under subsection (3)(a) of this rule, for a control period in a calendar year before the year for which the Hg allowance was allocated.~~
~~(d) Hg allowances must be held in, deducted from, or transferred into or among Hg Allowance Tracking System accounts in accordance with OAR 340-228-0652 through 0656.~~
~~(e) A Hg allowance is a limited authorization to emit one ounce of mercury in accordance with the Hg Budget Trading Program. No provision of the Hg Budget Trading Program, the Hg Budget permit application, the Hg Budget permit, or an exemption under OAR 340-228-0605 and no provision of law can be construed to limit the authority of the State or the United States to terminate or limit such authorization.~~
~~(f) A Hg allowance does not constitute a property right.~~
~~(g) Upon recordation by the Administrator under OAR 340-228-0638 through 0656, every allocation, transfer, or deduction of a Hg allowance to or from a Hg Budget unit's compliance account is incorporated automatically in any Hg Budget permit of the source that includes the Hg Budget unit.~~
~~(4) Excess emissions requirements. The following excess emission requirements shall apply to each Hg Budget unit for the control periods of 2010 through 2017.~~
~~(a) If a Hg Budget source emits mercury during any control period in excess of the Hg allowances in the source's compliance account that are available for compliance deduction in the control period, then:~~
~~(A) The owners and operators of the source and each Hg Budget unit at the source must surrender an amount of Hg allowances, allocated for the control period in the immediately following calendar year, equal to 3 times the number of ounces of the source's excess emissions in accordance with OAR 340-228-0644(4)(a) and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act or applicable State law; and~~
~~(B) Each ounce of such excess emissions and each day of such control period constitute a separate violation of the Clean Air Act and applicable State law.~~
(1) Mercury reduction plan. By July 1, 2009 or 1-year prior to commencement of commercial operation, whichever is later, the owner or operator of each coal-fired electric generating unit must develop and submit for Department approval a mercury reduction plan for each coal-fired electric generating unit. The plan must propose a control strategy for mercury that is most likely to result in the capture of at least 90 percent of the mercury emitted from the unit or that will limit mercury emissions to 0.60 pounds per trillion BTU of heat input. The owner or operator must demonstrate that the plan reflects technology that could reasonably be expected to meet the limits in this section if the technology operates as anticipated by the manufacturer. The plan must provide a timeframe for implementation of the selected control strategy including major milestones, installation and operation requirements, and work practice standards for the selected technology. The owner and operator of the coal-fired electric generating unit may proceed with the plan within 60 days of submittal unless, within the 60 day period, the Department notifies the owner or operator of the coal-fired electric generating unit that the plan must be revised.
(2) Mercury emission standards. On and after July 1, 2012 or at commencement of commercial startup, whichever is later, except as allowed under section (3) of this rule, each coal-fired electric generating unit must have implemented the approved control strategy projected to achieve at least 90 percent mercury capture or that will limit mercury emissions to 0.60 pounds per trillion BTU of heat input.
(3) Compliance extension. Up to a 1-year extension of the requirement to implement the approved control strategy may be granted by the Department if the owner or operator of a coal-fired electric generating unit demonstrates that it is not practical to install mercury control equipment by July 1, 2012

due to supply limitations or other extenuating circumstances that are beyond the control of the owner or operator.
(4) Compliance demonstration. Commencing in July 2013 or 12 months after commercial startup or 12 months after expiration of the extension granted under section (3) of this rule, whichever is later, each coal-fired electric generating unit must thereafter demonstrate compliance with one of the standards in subsections (4)(a) or (4)(b) of this rule for each compliance period, except as allowed under sections (5) and (6) of this rule. A compliance period consists of twelve months. Each month commencing with June 2013 or the twelfth month after commencement of commercial operation or twelfth month after expiration of the extension granted under section (3) of this rule, whichever is later, is the end of a compliance period consisting of that month and the previous 11 months.
(a) A mercury emission standard of 0.60 pounds per trillion BTU of heat input calculated by dividing the Hg mass emissions determined using a mercury CEMS or sorbent trap monitoring system by heat input as determined according to **40 CFR part 75**, **appendix F (procedure 5)**; or
(b) A minimum 90-percent capture of inlet mercury determined as follows:
(A) Inlet mercury must be determined as specified in subparagraph (4)(b)(A)(i) or (4)(b)(A)(ii) of this rule:
(i) Coal sampling and analysis. To demonstrate compliance by coal sampling and analysis, the owner or operator of a coal-fired electric generating unit must test its coal for mercury consistent with a coal sampling and analysis plan. The coal sampling and analysis plan must be consistent with the requirements of **40 CFR 63.7521**.
(ii) Hg mass emissions prior to any control device(s). To demonstrate compliance by measuring Hg mass emissions, the owner or operator of a coal-fired electric generating unit must measure mercury emissions prior to any control device(s) using a Hg CEMS or sorbent trap.
(B) The mercury capture efficiency must be calculated using the Hg emissions determined using a mercury CEMS or sorbent trap monitoring system and the inlet mercury determined using the coal mercury content data obtained in accordance with subparagraph (4)(b)(A)(i) of this rule or the measured inlet mercury data obtained in accordance with subparagraph (4)(b)(A)(ii) of this rule and a calculation methodology approved by the Department.
(5) Temporary compliance alternative. If the owner or operator of a coal-fired electric generating unit properly implements the approved control strategy and the strategy fails to achieve at least 90 percent mercury capture or limit mercury emissions to 0.60 pounds per trillion BTU of heat input:
(a) The owner or operator must notify the Department of the failure within 30 days of the end of the initial compliance period; and
(b) The owner or operator must file an application with the Department for a permit or permit modification in accordance with OAR 340 division 216 to establish a temporary alternative mercury emission limit. The application must be filed within 60 days of the end of the initial compliance period, and must include a continual program of mercury control progression able to achieve at least 90 percent mercury capture or to limit mercury emissions to 0.60 pounds per trillion BTU of heat input and all monitoring and operating data for the coal-fired electric generating unit.
(c) The Department may establish a temporary alternative mercury emission limit only if the owner or operator applies for a permit or permit modification, that includes a control strategy that the Department determines constitutes a continual program of mercury control progression able to achieve at least 90 percent mercury capture or to limit mercury emissions to 0.60 pounds per trillion BTU of heat input.
(d) Establishment of a temporary alternative mercury emission limit requires public notice in accordance with OAR 340 division 209 for Category III permit actions

(e) If the owner or operator files an application under subsection (5)(b) of this rule, the coal-fired electric generating unit must operate according to the temporary alternative mercury emission limit proposed in the permit or permit modification application until the Department either denies the application or issues the permit or permit modification. Compliance with the proposed temporary alternative mercury emission limit prior to final Department action on the application shall constitute compliance with the limits in section (2) of this rule.
(f) A temporary alternative mercury emission limit established in a permit expires July 1, 2015 or within 2 years of commencement of commercial operation, whichever is later.
(6) Permanent compliance alternative. If the owner or operator of a coal-fired electric generating unit is unable to achieve at least 90 percent mercury capture or an emission level of 0.60 pounds per trillion BTU of heat input by July 1, 2015 or within 2 years of commencement of commercial operation, whichever is later, despite properly implementing the continual program of mercury progression required in section (5) of this rule:
(a) The owner or operator of the coal-fired electric generating unit may file an application with the Department for a permit modification in accordance with OAR 340 division 216 to establish a permanent alternative mercury emission limit that comes as near as technically possible to achieving 90 percent mercury capture or an emission level of 0.60 pounds per trillion BTU of heat input.
(b) The Department may establish a permanent alternative mercury emission limit only if the owner or operator applies for a permit modification, that proposes an alternative mercury emission limit that the Department determines comes as near as technically possible to achieving 90 percent mercury capture or an emission level of 0.60 pounds per trillion BTU of heat input.
(c) Establishment of a permanent alternative mercury emission limit requires public notice in accordance with OAR 340 division 209 for Category IV permit actions.
(d) If the owner or operator files an application under subsection (6)(a) of this rule, the coal-fired electric generating unit must operate according to the permanent alternative mercury emission limit proposed in the permit modification application until the Department either denies the application or modifies the permit. Compliance with the proposed permanent alternative mercury emission limit prior to final Department action on the application shall constitute compliance with the limits in section (4) of this rule.
(7) Emission Caps. Beginning in calendar year 2018, the following coal-fired electric generating unit specific emission caps shall apply.
(a) Existing Boardman coal-fired electric generating unit cap. The existing coal-fired electric generating unit in Boardman shall emit no more than:
(A) 60 pounds of mercury in any calendar year in which there are no new coal-fired electric generating units operated in Oregon.
(B) 35 pounds of mercury in any calendar year in which there are new coal-fired electric generating units operated in Oregon.
(b) New coal-fired electric generating unit cap:
(A) New coal-fired electric generating units, in aggregate, shall emit no more than:
(i) 25 pounds of mercury in any calendar year in which the existing coal-fired electric generating unit in Boardman is operated.
(ii) 60 pounds of mercury in any calendar year in which the existing coal-fired electric generating unit in Boardman is not operated.
(B) The owner or operator of each new coal-fired electric generating unit must submit to the Department a request, in a format specified by the Department, to receive a portion of the new coal-fired electric

generating unit cap. The request may not be submitted until the new coal-fired electric generating unit has received its Site Certification from the Facility Siting Council, or if the new coal-fired electric generating unit is not required to obtain a Site Certificate, all governmental approvals necessary to commence construction.
(C) The Department will allocate the new coal-fired electric generating unit cap in order of receipt of requests and, once allocated, the new coal-fired electric generating unit shall be entitled to receive an equal allocation in future years unless the new coal-fired electric generating unit permanently ceases operations.
(D) Each individual new coal-fired electric generating unit shall emit no more than the lesser of:
(i) An amount of mercury determined by multiplying the design heat input in TBtu of such coal-fired electric generating unit by 0.60 pounds per TBtu rounded to the nearest pound as appropriate, or
(ii) The amount of the emission cap under (7)(b) less the amount of the emission cap under (7)(b) that has been allocated to other new coal-fired electric generating units.
(c) Compliance demonstration. Each coal-fired electric generating unit must demonstrate compliance with the applicable calendar year emission cap in subsection (7)(a) or (7)(b) of this rule using a mercury CEMS or sorbent trap monitoring system.
~~(5) Recordkeeping and reporting requirements.~~
~~(a) Unless otherwise provided, the owners and operators of the Hg Budget source and each Hg Budget unit at the source must keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the Department or the Administrator.~~
~~(A) The certificate of representation under OAR 340-228-0618 for the Hg designated representative for the source and each Hg Budget unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents are retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation under OAR 340-228-0618 changing the Hg designated representative.~~
~~(B) All emissions monitoring information, in accordance with OAR 340-228-0658 through 0670, provided that to the extent that OAR 340-228-0658 through 0670 provides for a 3-year period for recordkeeping, the 3-year period applies.~~
~~(C) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Hg Budget Trading Program.~~
~~(D) Copies of all documents used to complete a Hg Budget permit application and any other submission under the Hg Budget Trading Program or to demonstrate compliance with the requirements of the Hg Budget Trading Program.~~
~~(b) The Hg designated representative of a Hg Budget source and each Hg Budget unit at the source must submit the reports required under the Hg Budget Trading Program, including those under OAR 340-228-0658 through 0670.~~
~~(6) Liability.~~
~~(a) Each Hg Budget source and each Hg Budget unit must meet the requirements of the Hg Budget Trading Program for the control periods of 2010 through 2017.~~
~~(b) Any provision of the Hg Budget Trading Program that applies to a Hg Budget source or the Hg designated representative of a Hg Budget source also applies to the owners and operators of such source and of the Hg Budget units at the source.~~

~~(c) Any provision of the Hg Budget Trading Program that applies to a Hg Budget unit or the Hg designated representative of a Hg Budget unit also applies to the owners and operators of such unit.~~
~~(7) Effect on other authorities. No provision of the Hg Budget Trading Program, a Hg Budget permit application, a Hg Budget permit, or an exemption under OAR 340-228-0605 must be construed as exempting or excluding the owners and operators, and the Hg designated representative, of a Hg Budget source or Hg Budget unit from compliance with any other provision of the applicable, approved State implementation plan, a Federally enforceable permit, or the CAA.~~
Stat. Auth.: ORS 468.020 & 468A.310
Stats. Implemented: ORS 468A.025
Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06

Monitoring Requirements

340-228-0609
General Requirements
The owners and operators of a coal-fired electric generating unit~~,~~ must comply with the monitoring, recordkeeping, and reporting requirements as provided in this rule and OAR 340-228-0611 through 0637. For purposes of complying with such requirements, the definitions in OAR 340-228-0602 and in 40 CFR 72.2 shall apply, and the terms "affected unit" and "designated representative" in **40 CFR part 75** shall be deemed to refer to the terms "coal-fired electric generating unit" and "owner or operator" respectively, as defined in OAR 340-228-0602. The owner or operator of a unit that is not a coal-fired electric generating unit but that is monitored under OAR 340-228-0615(2)(a) must comply with the same monitoring, recordkeeping, and reporting requirements as a coal-fired electric generating unit.
(1) Requirements for installation, certification, and data accounting. The owner or operator of each coal-fired electric generating unit must:
(a) Install all applicable monitoring systems required under this rule and OAR 340-228-0611 through 0637 for monitoring Hg mass emissions, inlet Hg (if applicable), and individual unit heat input (including all systems required to monitor Hg concentration, stack gas moisture content, stack gas flow rate, and CO_2 or O_2 concentration, as applicable).
(b) Successfully complete all certification tests required under OAR 340-228-0621 and meet all other requirements of this rule and OAR 340-228-0611 through 0637 applicable to the monitoring systems under subsection (1)(a) of this rule.
(c) The owner or operator must reduce all volumetric flow, CO_2 concentration or O_2 concentration, as applicable, and Hg concentration data collected by the monitors to hourly averages.
(d) Record, report, and quality-assure the data from the monitoring systems under subsection (1)(a) of this rule.
(e) Failure of a CO_2 or O_2 emissions concentration monitor, Hg concentration monitor, flow monitor, or moisture monitor to acquire the minimum number of data points for calculation of an hourly average shall result in the failure to obtain a valid hour of data and the loss of such component data for the entire hour.
(2) Compliance deadlines. The owner or operator must meet the monitoring system certification and other requirements of section (1) of this rule on or before the following dates. The owner or operator must record, report, and quality-assure the data from the monitoring systems under subsection (1)(a) of this rule on and after the following dates.
(a) Outlet Hg.

(A) For the owner or operator of a coal-fired electric generating unit that commences commercial operation before July 1, 2008, by January 1, 2009.
(B) For the owner or operator of a coal-fired electric generating unit that commences commercial operation on or after July 1, 2008, by the later of the following dates:
(i) January 1, 2009; or
(ii) 90 unit operating days or 180 calendar days, whichever occurs first, after the date on which the unit commences commercial operation.
(C) For the owner or operator of a coal-fired electric generating unit for which construction of a new stack or flue or installation of add-on Hg emission controls, a flue gas desulfurization system, a selective catalytic reduction system, or a compact hybrid particulate collector system is completed after the applicable deadline under paragraph (2)(a)(A) or (B) of this rule, by 90 unit operating days or 180 calendar days, whichever occurs first, after the date on which emissions first exit to the atmosphere through the new stack or flue, add-on Hg emissions controls, flue gas desulfurization system, selective catalytic reduction system, or compact hybrid particulate collector system.
(b) Heat input. For monitoring systems used to monitor heat input in accordance with OAR 340-228-0606(4)(a), if applicable, by the later of the following dates:
(A) July 1, 2012 or the date established under OAR 340-228-0606(3); or
(B) The date on which the unit commences commercial operation.
(c) Inlet Hg. If required to perform coal sampling and analysis in accordance with OAR 340-228-0606(4)(b)(A)(i) or measure Hg emission prior to any control device(s) in accordance with OAR 340-228-0606(4)(b)(A)(ii), if applicable, by the later of the following dates:
(A) July 1, 2012 or the date established under OAR 340-228-0606(3); or
(B) The date on which the unit commences commercial operation.
(3) Reporting data.
(a) Except as provided in subsection (3)(b) of this rule, the owner or operator of a coal-fired electric generating unit that does not meet the applicable compliance date set forth in section (2) of this rule for any monitoring system under subsection (1)(a) of this rule must, for each monitoring system, determine, record, and report maximum potential (or, as appropriate, minimum potential) values for Hg concentration, stack gas flow rate, stack gas moisture content, and any other parameters required to determine Hg mass emissions and heat input in accordance with OAR 340-228-0637(5).
(b) The owner or operator of a coal-fired electric generating unit that does not meet the applicable compliance date set forth in paragraph (2)(a)(C) of this rule for any monitoring system under subsection (1)(a) must, for each such monitoring system, determine, record, and report substitute data using the applicable missing data procedures in **40 CFR part 75 subpart D**, OAR 340-228-0631, and OAR 340-228-0633, in lieu of the maximum potential (or, as appropriate, minimum potential) values, for a parameter if the owner or operator demonstrates that there is continuity between the data streams for that parameter before and after the construction or installation under subsection (2)(a)(C) of this rule.
(4) Prohibitions.
(a) No owner or operator of a coal-fired electric generating unit shall use any alternative monitoring system, alternative reference method, or any other alternative to any requirement of this rule and OAR 340-228-0611 through 0637 without having obtained prior written approval.
(b) No owner or operator of a coal-fired electric generating unit shall operate the unit so as to discharge, or allow to be discharged, Hg emissions to the atmosphere without accounting for all such emissions in accordance with the applicable provisions of this rule and~~,~~ OAR 340-228-0611 through 0637.

(c) No owner or operator of a coal-fired electric generating unit shall disrupt the continuous emission monitoring system, any portion thereof, or any other approved emission monitoring method, and thereby avoid monitoring and recording Hg mass emissions discharged into the atmosphere, except for periods of recertification or periods when calibration, quality assurance testing, or maintenance is performed in accordance with the applicable provisions of this rule and~~,~~ OAR 340-228-0611 through 0637.

(d) No owner or operator of a coal-fired electric generating unit shall retire or permanently discontinue use of the continuous emission monitoring system, any component thereof, or any other approved emission monitoring system under this rule, except under any one of the following circumstances:

(A) The owner or operator is monitoring Hg mass emissions from the coal-fired electric generating unit with another certified monitoring system approved, in accordance with the applicable provisions of this rule~~,~~ and OAR 340-228-0611 through 0637, by the Department for use at that unit that provides emission data for the same pollutant or parameter as the retired or discontinued monitoring system; or

(B) The owner or operator submits notification of the date of certification testing of a replacement monitoring system for the retired or discontinued monitoring system in accordance with OAR 340-228-0621(3)(c)(A).

340-228-0611

Additional Requirements to Provide Heat Input Data

The owner or operator of a coal-fired electric generating unit that monitors and reports Hg mass emissions using a Hg concentration monitoring system and a flow monitoring system must also monitor and report heat input rate at the unit level using the procedures set forth in **40 CFR part 75, appendix F (procedure 5)**.

340-228-0613

Monitoring of Hg Mass Emissions and Heat Input at the Unit Level

The owner or operator of the affected coal-fired electric generating unit must meet the general operating requirements in **40 CFR 75.10** for the following continuous emission monitors (except as provided in accordance with **40 CFR part 75 subpart E**):

(1) A Hg concentration monitoring system (as defined in OAR 340-228-0602) or a sorbent trap monitoring system (as defined in OAR 340-228-0602) to measure Hg concentration; and

(2) A flow monitoring system; and

(3) A continuous moisture monitoring system (if correction of Hg concentration for moisture is required), as described in **40 CFR 75.11(b)**. Alternatively, the owner or operator may use the appropriate fuel-specific default moisture value provided in **40 CFR 75.11 or 75.12**, or a site-specific moisture value approved by the Department; and

(4) If heat input is required to be reported, the owner or operator also must meet the general operating requirements for a flow monitoring system and an O_2 or CO_2 monitoring system to measure heat input rate.

340-228-0615

Monitoring of Hg Mass Emissions and Heat Input at Common and Multiple Stacks

(1) Unit utilizing common stack with other coal-fired electric generating unit(s). When a coal-fired electric generating unit utilizes a common stack with one or more coal-fired electric generating units, but no non coal-fired electric generating units, the owner or operator must either:

(a) Install, certify, operate, and maintain the monitoring systems described in OAR 340-228-0613 at the common stack and record the combined Hg mass emissions for the units exhausting to the common stack. If reporting of the unit heat input rate is required, determine the hourly unit heat input rates either by:
(A) Apportioning the common stack heat input rate to the individual units according to the procedures in **40 CFR 75.16(e)(3)**; or
(B) Installing, certifying, operating, and maintaining a flow monitoring system and diluent monitor in the duct to the common stack from each unit; or
(b) Install, certify, operate, and maintain the monitoring systems and (if applicable) perform the Hg emission testing described in OAR 340-228-0613 in the duct to the common stack from each unit.
(2) Unit utilizing common stack with non coal-fired electric generating unit(s). When one or more coal-fired electric generating units utilize a common stack with one or more non coal-fired electric generating units, the owner or operator must either:
(a) Install, certify, operate, and maintain the monitoring systems and (if applicable) perform the Hg emission testing described in OAR 340-228-0613 in the duct to the common stack from each coal-fired electric generating unit; or
(b) Install, certify, operate, and maintain the monitoring systems described in OAR 340-228-0613 in the common stack; and
(A) Install, certify, operate, and maintain the monitoring systems and (if applicable) perform the Hg emission testing described in OAR 340-228-0613 in the duct to the common stack from each non coal-fired electric generating unit. The owner or operator must submit a petition to the Department to allow a method of calculating and reporting the Hg mass emissions from the coal-fired electric generating units as the difference between Hg mass emissions measured in the common stack and Hg mass emissions measured in the ducts of the non coal-fired electric generating units, not to be reported as an hourly value less than zero. The Department may approve such a method whenever the owner or operator demonstrates, to the satisfaction of the Department, that the method ensures that the Hg mass emissions from the coal-fired electric generating units are not underestimated; or
(B) Count the combined emissions measured at the common stack as the Hg mass emissions for the coal-fired electric generating units, for recordkeeping and compliance purposes, in accordance with section (1) of this rule; or
(C) Submit a petition to the Department to allow use of a method for apportioning Hg mass emissions measured in the common stack to each of the units using the common stack and for reporting the Hg mass emissions. The Department may approve such a method whenever the owner or operator demonstrates, to the satisfaction of the Department, that the method ensures that the Hg mass emissions from the coal-fired electric generating units are not underestimated.
(c) If the monitoring option in subsection (2)(b) of this rule is selected, and if heat input is required to be reported, the owner or operator must either:
(A) Apportion the common stack heat input rate to the individual units according to the procedures in **40 CFR 75.16(e)(3)**; or
(B) Install a flow monitoring system and a diluent gas ($O2$ or $CO2$) monitoring system in the duct leading from each affected unit to the common stack, and measure the heat input rate in each duct, according to section 5.2 of **appendix F to 40 CFR part 75**.
(3) Unit with a main stack and a bypass stack. Whenever any portion of the flue gases from a coal-fired electric generating unit can be routed through a bypass stack to avoid the Hg monitoring system(s) installed on the main stack, the owner and operator must either:

(a) Install, certify, operate, and maintain the monitoring systems described in OAR 340-228-0613 on both the main stack and the bypass stack and calculate Hg mass emissions for the unit as the sum of the Hg mass emissions measured at the two stacks;

(b) Install, certify, operate, and maintain the monitoring systems described in OAR 340-228-0613 at the main stack and measure Hg mass emissions at the bypass stack using the appropriate reference methods in OAR 340-228-0602(33) or in **40 CFR 75.22**. Calculate Hg mass emissions for the unit as the sum of the emissions recorded by the installed monitoring systems on the main stack and the emissions measured by the reference method monitoring systems;

(c) Install, certify, operate, and maintain the monitoring systems and (if applicable) perform the Hg emission testing described in OAR 340-228-0613 only on the main stack. If this option is chosen, it is not necessary to designate the exhaust configuration as a multiple stack configuration in the monitoring plan required under **40 CFR 75.53** and OAR 340-228-0637(2), since only the main stack is monitored. For each unit operating hour in which the bypass stack is used, report, as applicable, the maximum potential Hg concentration (as defined in OAR 340-228-0602(25)), and the appropriate substitute data values for flow rate, CO2 concentration, O2 concentration, and moisture (as applicable), in accordance with the missing data procedures of OAR 340-228-0631 and 0633, as applicable; or

(d) If the monitoring option in subsection (3)(a) or (b) of this rule is selected, and if heat input is required to be reported, the owner or operator must:

(A) Use the installed flow and diluent monitors to determine the hourly heat input rate at each stack (MMBtu/hr), according to section 5.2 of **appendix F to 40 CFR part 75**; and

(B) Calculate the hourly heat input at each stack (in MMBtu) by multiplying the measured stack heat input rate by the corresponding stack operating time; and

(C) Determine the hourly unit heat input by summing the hourly stack heat input values.

(4) Unit with multiple stack or duct configuration. When the flue gases from a coal-fired electric generating unit discharge to the atmosphere through more than one stack, or when the flue gases from a coal-fired electric generating unit utilize two or more ducts feeding into a single stack and the owner or operator chooses to monitor in the ducts rather than in the stack, the owner or operator must either:

(a) Install, certify, operate, and maintain the monitoring systems and (if applicable) perform the Hg emission testing described in OAR 340-228-0613 in each of the multiple stacks and determine Hg mass emissions from the coal-fired electric generating unit as the sum of the Hg mass emissions recorded for each stack. If another unit also exhausts flue gases into one of the monitored stacks, the owner or operator must comply with the applicable requirements of sections (1) and (2) of this rule, in order to properly determine the Hg mass emissions from the units using that stack;

(b) Install, certify, operate, and maintain the monitoring systems and (if applicable) perform the Hg emission testing described in OAR 340-228-0613 in each of the ducts that feed into the stack, and determine Hg mass emissions from the coal-fired electric generating unit using the sum of the Hg mass emissions measured at each duct, except that where another unit also exhausts flue gases to one or more of the stacks, the owner or operator must also comply with the applicable requirements of sections (1) and (2) of this rule to determine and record Hg mass emissions from the units using that stack. The owner or operator must calculate Hg mass emissions and heat input rate in accordance with approved procedures; or

(c) If the monitoring option in subsection (4)(a) or (b) of this rule is selected, and if heat input is required to be reported, the owner or operator must:

(A) Use the installed flow and diluent monitors to determine the hourly heat input rate at each stack or duct (MMBtu/ hr), according to section 5.2 of **appendix F to 40 CFR part 75**; and

(B) Calculate the hourly heat input at each stack or duct (in MMBtu) by multiplying the measured stack (or duct) heat input rate by the corresponding stack (or duct) operating time; and
(C) Determine the hourly unit heat input by summing the hourly stack (or duct) heat input values.

340-228-0617
Special Provisions for Measuring Hg Mass Emissions using the Sorbent Trap Monitoring Methodology
For an affected coal-fired electric generating unit, if the owner or operator elects to use sorbent trap monitoring systems to quantify Hg mass emissions, the guidelines in sections (1) through (11) of this rule must be followed for this monitoring methodology:
(1) For each sorbent trap monitoring system (whether primary or redundant backup), the use of paired sorbent traps, as described in OAR 340-228-0627, is required.
(2) Each sorbent trap must have both a main section, a backup section, and a third section to allow spiking with a calibration gas of known Hg concentration, as described in OAR 340-228-0627.
(3) A certified flow monitoring system is required.
(4) Correction for stack gas moisture content is required, and in some cases, a certified O_2 or CO_2 monitoring system is required.
(5) Each sorbent trap monitoring system must be installed and operated in accordance with OAR 340-228-0627. The automated data acquisition and handling system must ensure that the sampling rate is proportional to the stack gas volumetric flow rate.
(6) At the beginning and end of each sample collection period, and at least once in each unit operating hour during the collection period, the dry gas meter reading must be recorded.
(7) After each sample collection period, the mass of Hg adsorbed in each sorbent trap (in all three sections) must be determined according to the applicable procedures in OAR 340-228-0627.
(8) The hourly Hg mass emissions for each collection period are determined using the results of the analyses in conjunction with contemporaneous hourly data recorded by a certified stack flow monitor, corrected for the stack gas moisture content. For each pair of sorbent traps analyzed, the average of the two Hg concentrations must be used for reporting purposes under OAR 340-228-0637(4). Notwithstanding this requirement, if, due to circumstances beyond the control of the owner or operator, one of the paired traps is accidentally lost, damaged, or broken and cannot be analyzed, the results of the analysis of the other trap may be used for reporting purposes, provided that:
(a) The other trap has met all of the applicable quality-assurance requirements; and
(b) The Hg concentration measured by the other trap is multiplied by a factor of 1.111.
(9) All unit operating hours for which valid Hg concentration data are obtained with the primary sorbent trap monitoring system (as verified using the quality assurance procedures in OAR 340-228-0627) must be reported in the quarterly report under OAR 340-228-0637(4). For hours in which data from the primary monitoring system are invalid, the owner or operator may report valid Hg concentration data from a certified redundant backup CEMS or sorbent trap monitoring system or from an applicable reference method under OAR 340-228-0602(33) or **40 CFR 75.22**. If no quality-assured Hg concentration is available for a particular hour, the owner or operator must report the appropriate substitute data value in accordance with OAR 340-228-0633.
(10) Initial certification requirements and additional quality-assurance requirements for the sorbent trap monitoring systems are found in OAR 340-228-0627.
(11) Whenever the type of sorbent material used by the traps is changed, the owner or operator must conduct a diagnostic RATA of the modified sorbent trap monitoring system within 720 unit or stack

operating hours after the date and hour when the new sorbent material is first used. If the diagnostic RATA is passed, data from the modified system may be reported as quality-assured, back to the date and hour when the new sorbent material was first used. If the RATA is failed, all data from the modified system shall be invalidated, back to the date and hour when the new sorbent material was first used, and data from the system shall remain invalid until a subsequent RATA is passed. If the required RATA is not completed within 720 unit or stack operating hours, but is passed on the first attempt, data from the modified system shall be invalidated beginning with the first operating hour after the 720 unit or stack operating hour window expires and data from the system shall remain invalid until the date and hour of completion of the successful RATA.

340-228-0619
Procedures for Hg Mass Emissions
(1) Use the procedures in this rule to calculate the hourly Hg mass emissions (in pounds) at each monitored location, for the affected unit or group of units that discharge through a common stack.
(a) To determine the hourly Hg mass emissions when using a Hg concentration monitoring system that measures on a wet basis and a flow monitor, use the following equation:

$$M_h = K \times C_h \times Q_h \times t_h$$

Where:
Mh = Hg mass emissions for the hour, rounded off to three decimal places, (pounds).
K = Units conversion constant, 6.236×10^{-11} lb-m3/μg-scf
Ch = Hourly Hg concentration, wet basis, adjusted for bias if the bias-test procedures show that a bias-adjustment factor is necessary, (μg/wscm).
Qh = Hourly stack gas volumetric flow rate, adjusted for bias, where the bias-test procedures show a bias-adjustment factor is necessary, (scfh)
th = Unit or stack operating time, as defined in **40 CFR 72.2**, (hr)
(b) To determine the hourly Hg mass emissions when using a Hg concentration monitoring system that measures on a dry basis or a sorbent trap monitoring system and a flow monitor, use the following equation:

$$M_h = K \times C_h \times Q_h \times t_h \times (1 - B_{ws})$$

Where:
Mh = Hg mass emissions for the hour, rounded off to three decimal places, (pounds).
K = Units conversion constant, 6.236×10^{-11} lb-m3/μg-scf
Ch = Hourly Hg concentration, dry basis, adjusted for bias if the bias-test procedures show that a bias-adjustment factor is necessary, (μg/dscm). For sorbent trap systems, a single value of Ch (i.e., a flow proportional average concentration for the data collection period), is applied to each hour in the data collection period, for a particular pair of traps.
Qh = Hourly stack gas volumetric flow rate, adjusted for bias, where the bias-test procedures show a bias-adjustment factor is necessary, (scfh)
Bws = Moisture fraction of the stack gas, expressed as a decimal (equal to % H2O 100)
th = Unit or stack operating time, as defined in **40 CFR 72.2**, (hr)

(2) Use equation 1 to this division to calculate quarterly, year-to-date, and 12-month total Hg mass emissions in pounds.
(3) If heat input rate monitoring is required, follow the applicable procedures for heat input apportionment and summation in sections 5.3, 5.6 and 5.7 of **appendix F to 40 CFR part 75**.

Monitoring Certification

340-228-0621
Initial Certification and Recertification Procedures
(1) The owner or operator of a coal-fired electric generating unit shall be exempt from the initial certification requirements of this rule for a monitoring system under OAR 340-228-0609(1)(a) if the following conditions are met:
(a) The monitoring system has been previously certified; and
(b) The applicable quality-assurance and quality-control requirements are fully met for the certified monitoring system described in subsection (1)(a) of this rule.
(2) The recertification provisions of this rule shall apply to a monitoring system under OAR 340-228-0609(1)(a) exempt from initial certification requirements under section (1) of this rule.
(3) Initial certification and recertification procedures. Except as provided in section (1) of this rule, the owner or operator of a coal-fired electric generating unit must comply with the following initial certification and recertification procedures for a continuous monitoring system (e.g., a continuous emission monitoring system or sorbent trap monitoring system). The owner or operator must meet any additional requirements for Hg concentration monitoring systems, sorbent trap monitoring systems (as defined in OAR 340-228-0602(36)), flow monitors, CO2 monitors, O2 monitors, or moisture monitors, as set forth under OAR 340-228-0613, under the common stack provisions in OAR 340-228-0615. The owner or operator of a unit that qualifies to use an alternative monitoring system must comply with the procedures in section (4) of this rule.
(a) Requirements for initial certification. The owner or operator must ensure that each monitoring system under OAR 340-228-0609(1)(a) (including the automated data acquisition and handling system) successfully completes all of the initial certification testing by the applicable deadline in OAR 340-228-0609(2). In addition, whenever the owner or operator installs a monitoring system to meet the requirements of this rule in a location where no such monitoring system was previously installed, initial certification is required.
(b) Requirements for recertification. Whenever the owner or operator makes a replacement, modification, or change in any certified continuous emission monitoring system or sorbent trap monitoring system that may significantly affect the ability of the system to accurately measure or record the CO2 concentration, stack gas volumetric flow rate, Hg concentration, Hg mass emissions, percent moisture, or heat input rate or to meet the quality-assurance and quality-control requirements of **40 CFR 75.21**, OAR 340-228-0623, or **appendix B to 40 CFR part 75**, the owner or operator must recertify the monitoring system in accordance with **40 CFR 75.20(b)**. Furthermore, whenever the owner or operator makes a replacement, modification, or change to the flue gas handling system or the unit's operation that may significantly change the stack flow or concentration profile, the owner or operator must recertify each continuous emission monitoring system or sorbent trap monitoring system, whose accuracy is potentially affected by the change, in accordance with **40 CFR 75.20(b)**. Examples of changes to a continuous emission monitoring system that require recertification include replacement of the analyzer,

complete replacement of an existing continuous emission monitoring system, or change in location or orientation of the sampling probe or site.

(c) Approval process for initial certification and recertification. Paragraphs (3)(c)(A) through (D) of this rule apply to both initial certification and recertification of a continuous monitoring system under OAR 340-228-0609(1)(a). For recertifications, apply the word "recertification" instead of the words "certification" and "initial certification" and apply the word "recertified" instead of the word "certified," and follow the procedures in **40 CFR 75.20(b)(5)** in lieu of the procedures in paragraph (3)(c)(E) of this rule.

(A) Notification of certification. The owner or operator must submit to the Department written notice of the dates of certification testing, in accordance with **40 CFR 75.61**.

(B) Certification application. The owner or operator must submit to the Department a certification application for each monitoring system. A complete certification application must include the information specified in **40 CFR 75.63**.

(C) Provisional certification date. The provisional certification date for a monitoring system must be determined in accordance with **40 CFR 75.20(a)(3)**. A provisionally certified monitoring system may be used for a period not to exceed 120 days after receipt by the Department of the complete certification application for the monitoring system under paragraph (3)(c)(B) of this rule. Data measured and recorded by the provisionally certified monitoring system will be considered valid quality-assured data (retroactive to the date and time of provisional certification), provided that the Department does not invalidate the provisional certification by issuing a notice of disapproval within 120 days of the date of receipt of the complete certification application by the Department.

(D) Certification application approval process. The Department will issue a written notice of approval or disapproval of the certification application to the owner or operator within 120 days of receipt of the complete certification application under paragraph (3)(c)(B) of this rule. In the event the Department does not issue such a notice within such 120-day period, each monitoring system that meets the applicable performance requirements and is included in the certification application will be deemed certified for use.

(i) Approval notice. If the certification application is complete and shows that each monitoring system meets the applicable performance requirements, then the Department will issue a written notice of approval of the certification application within 120 days of receipt.

(ii) Incomplete application notice. If the certification application is not complete, then the Department will issue a written notice of incompleteness that sets a reasonable date by which the owner or operator must submit the additional information required to complete the certification application. If the owner or operator does not comply with the notice of incompleteness by the specified date, then the Department may issue a notice of disapproval under subparagraph (3)(c)(D)(iii) of this rule. The 120-day review period must not begin before receipt of a complete certification application.

(iii) Disapproval notice. If the certification application shows that any monitoring system does not meet the performance requirements or if the certification application is incomplete and the requirement for disapproval under subparagraph (3)(c)(D)(ii) of this rule is met, then the Department will issue a written notice of disapproval of the certification application. Upon issuance of such notice of disapproval, the provisional certification is invalidated by the Department and the data measured and recorded by each uncertified monitoring system must not be considered valid quality-assured data beginning with the date and hour of provisional certification (as defined under **40 CFR 75.20(a)(3)**). The owner or operator must follow the procedures for loss of certification in paragraph (3)(c)(E) of this rule for each monitoring system that is disapproved for initial certification.

(iv) Audit decertification. The Department may issue a notice of disapproval of the certification status of a monitor in accordance with OAR 340-228-0629(2).
(E) Procedures for loss of certification. If the Department issues a notice of disapproval of a certification application under subparagraph (3)(c)(D)(iii) of this rule or a notice of disapproval of certification status under subparagraph (3)(c)(D)(iv) of this rule, then:
(i) The owner or operator must substitute the following values, as applicable, for each disapproved monitoring system, for each hour of unit operation during the period of invalid data specified under **40 CFR 75.20(a)(4)(iii)**, **40 CFR 75.21(e)** and continuing until such time, date, and hour as the continuous emission monitoring system can be adjusted, repaired, or replaced and certification tests successfully completed (or, if the conditional data validation procedures in **40 CFR 75.20(b)(3)(ii) through (ix)** are used, until a probationary calibration error test is passed following corrective actions in accordance with **40 CFR 75.20(b)(3)(ii)**):
(I) For a disapproved Hg pollutant concentration monitor and disapproved flow monitor, respectively, the maximum potential Hg concentration, as defined in OAR 340-228-0602(25), and the maximum potential flow rate, as defined in section 2.1.4.1 of **appendix A to 40 CFR part 75**; and
(II) For a disapproved moisture monitoring system and disapproved diluent gas monitoring system, respectively, the minimum potential moisture percentage and either the maximum potential CO_2 concentration or the minimum potential O_2 concentration (as applicable), as defined in sections 2.1.5, 2.1.3.1, and 2.1.3.2 of **appendix A to 40 CFR part 75**.
(III) For a disapproved sorbent trap monitoring system and disapproved flow monitor, respectively, the maximum potential Hg concentration, as defined in OAR 340-228-0602(25), and maximum potential flow rate, as defined in section 2.1.4.1 of **appendix A to 40 CFR part 75**.
(ii) The owner or operator must submit a notification of certification retest dates as specified in **40 CFR 75.61(a)(1)(ii)** and a new certification application in accordance with paragraphs (3)(c)(A) and (B) of this rule.
(iii) The owner or operator must repeat all certification tests or other requirements that were failed by the monitoring system, as indicated in the Department's notice of disapproval, no later than 30 unit operating days after the date of issuance of the notice of disapproval.
(d) For each Hg concentration monitoring system, the owner or operator must perform the following tests for initial certification or recertification of a Hg continuous emission system:
(A) A 7-day calibration error test in accordance with section 6.3 of **appendix A to 40 CFR part 75.** The owner or operator may perform this test using either NIST-traceable elemental Hg standards, a NIST-traceable source of oxidized Hg, or other NIST-traceable standards subject to the approval of the Department. The calibration error of a Hg concentration monitor must not deviate from the reference value of either the zero or upscale calibration gas by more than 5.0 percent of the span value, as calculated using Equation A–5 of **appendix A to 40 CFR part 75**. Alternatively, if the span value is 10 µg/m3, the calibration error test results are also acceptable if the absolute value of the difference between the monitor response value and the reference value, |R–A| in Equation A–5 of **appendix A to 40 CFR part 75**, is ≤ 1.0 µg/m3. If moisture is added to the calibration gas, the added moisture must be accounted for and the dry-basis concentration of the calibration gas must be used to calculate the calibration error.
(B) A linearity check in accordance with section 6.2 of **appendix A to 40 CFR part 75**. Design and equip each mercury monitor to permit the introduction of known concentrations of elemental Hg and $HgCl_2$ separately, at a point immediately preceding the sample extraction filtration system, such that the entire measurement system can be checked. If the Hg monitor does not have a converter, the $HgCl_2$

injection capability is not required. Follow the applicable procedures in section 6.2 of **appendix A to 40 CFR part 75** when performing the 3-level system integrity checks described in paragraph (3)(d)(F) of this rule. Perform the linearity check using NIST-traceable elemental Hg standards and the 3-level system integrity checks using NIST-traceable source of oxidized Hg or ,other NIST-traceable standards subject to the approval of the Department. If moisture is added to the calibration gas during the required linearity checks or system integrity checks, the moisture content of the calibration gas must be accounted for. Under these circumstances, the dry basis concentration of the calibration gas must be used to calculate the linearity error or measurement error (as applicable).
(C) A relative accuracy test audit (RATA) in accordance with section 6.5 of **appendix A to 40 CFR part 75** and as follows:
(i) The RATA must be performed on a µg/m3 basis and while the unit is combusting coal.
(ii) Calculate the relative accuracy, in accordance with section 7.3 or 7.4 of **appendix A to 40 CFR part 75**, as applicable.
(iii) The relative accuracy shall not exceed 20.0 percent. Alternatively, for affected units where the average of the reference method measurements of Hg concentration during the relative accuracy test audit is less than 5.0 µg/m3, the test results are acceptable if the difference between the mean value of the monitor measurements and the reference method mean value does not exceed 1.0 µg/m3, in cases where the relative accuracy specification of 20.0 percent is not achieved.
(iv) For the RATA of a Hg CEMS using the Ontario Hydro Method, or for the RATA of a sorbent trap system (irrespective of the reference method used), the time per run must be long enough to collect a sufficient mass of Hg to analyze. For the RATA of a sorbent trap monitoring system, use the same-size trap that is used for daily operation of the monitoring system. Spike the third section of each sorbent trap with elemental Hg, as described in OAR 340-228-0627(7)(a)(B). Install a new pair of sorbent traps prior to each test run. For each run, the sorbent trap data must be validated according to the quality assurance criteria in OAR 340-228-0627(8).
(v) Use the same basic approach for traverse point selection that is used for other gas monitoring system RATAs, except that the stratification test provisions in sections 8.1.3 through 8.1.3.5 of Method 30A shall apply, rather than the provisions of section 6.5.6.1 through 6.5.6.3 of **appendix A to 40 CFR part 75**.
(vi) Up to 336 consecutive unit or stack operating hours may be taken to complete the RATA of a Hg monitoring system, when the Ontario Hydro Method or Method 29 is used as the reference method.
(D) A bias test in accordance with section 7.6 of **appendix A to 40 CFR part 75** and as follows:
(i) To calculate bias for a Hg monitoring system when using the Ontario Hydro Method or Method 29, “d” is, for each data point, the difference between the average Hg concentration value (in µg/m3) from the paired Ontario Hydro or Method 29 sampling trains and the concentration measured by the monitoring system. For sorbent trap systems, use the average Hg concentration measured by the paired traps in calculation of “d”.
(ii) For single-load RATAs of Hg concentration monitoring systems, and sorbent trap monitoring systems, the appropriate BAF is determined directly from the RATA results at normal load, using Equation A–12.
(iii) For multiple-load flow RATAs, perform a bias test at each load level designated as normal under section 6.5.2.1 of **appendix A to 40 CFR part 75**.
(iv) Mercury concentration monitoring systems and sorbent trap monitoring systems shall not be biased low.

(v) For Hg concentration and sorbent trap monitoring systems, where the average Hg concentration during the RATA is < 5.0 µg/dscm, if the monitoring system meets the normal or the alternative relative accuracy specification in subparagraph (3)(d)(C)(iii) of this rule but fails the bias test, the owner or operator may either use the bias adjustment factor (BAF) calculated from Equation A–12 **appendix A to 40 CFR part 75** and in accordance with sections 7.6.4 and 7.6.5 of **appendix A to 40 CFR part 75,** using the data from the relative accuracy test audits, or may use a default BAF of 1.250 for reporting purposes.
(vi) Use the bias-adjusted values in computing substitution values in the missing data procedure and in reporting the concentration of Hg during the quarter and calendar year. In addition, when using a Hg concentration or sorbent trap monitoring system and a flow monitor to calculate Hg mass emissions, use bias-adjusted values for Hg concentration and flow rate in the mass emission calculations and use bias-adjusted Hg concentrations to compute the appropriate substitution values for Hg concentration in the missing data routines.
(E) A cycle time test in accordance to section 6.4 of **appendix A to 40 CFR part 75.** For Hg monitors, the calibration gas used for this test may either be the elemental or oxidized form of Hg. As an alternative, the reading is considered stable if it changes by no more than 0.5 µg/m3 for two minutes.
(F) A 3-level system integrity check, using a NIST-traceable source of oxidized Hg, or other NIST-traceable standards subject to the approval of the Department. This test is not required for an Hg monitor that does not have a converter. The system measurement error must not exceed 10.0 percent of the reference value at any of the three gas levels**.** To calibrate the measurement error at each level, take the absolute value of the difference between the reference value and mean CEM response, divide the result by the reference value, and then multiply by 100. Alternatively, the results at any gas level are acceptable if the absolute value of the difference between the average monitor response and the average reference value, i.e., |R–A| in equation A–4 of **appendix A to 40 CFR part 75**, does not exceed 0.8 µg/m3.
(4) Certification/recertification procedures for alternative monitoring systems. The owner or operator of each unit for which the owner or operator intends to use an alternative monitoring system approved by the Department must comply with the applicable notification and application procedures of **40 CFR 75.20(f)**.

Monitoring Quality Assurance/Quality Control

340-228-0623
Quality Assurance and Quality Control Requirements
(1) For units that use continuous emission monitoring systems to account for Hg mass emissions, the owner or operator must meet the applicable quality assurance and quality control requirements in **40 CFR 75.21, appendix B to 40 CFR part 75**, and as follows, for the flow monitoring systems, Hg concentration monitoring systems, moisture monitoring systems, and diluent monitors required under OAR 340-228-0613. Units using sorbent trap monitoring systems must meet the applicable quality assurance requirements in OAR 340-228-0617, 340-228-0627, and as follows.
(a) Calibration Error Test. Except as provided in section 2.1.1.2 of **appendix B to 40 CFR part 75**, perform the daily calibration error test of each Hg monitoring system according to the procedures in OAR 340-228-0621(3)(d)(A). For Hg monitors, the daily assessments may be made using either NIST-traceable elemental Hg standards, a NIST-traceable source of oxidized Hg, or other NIST-traceable standards subject to the approval of the Department.

(b) Data Validation. For a Hg monitor, an out-of-control period occurs when the calibration error exceeds 5.0% of the span value. Notwithstanding, the Hg monitor shall not be considered out-of-control if |R–A| in Equation A–6 of **appendix A to 40 CFR part 75** does not exceed 1.0 µg/m3.
(c) Linearity Check. Unless a particular monitor (or monitoring range) is exempted under this subsection or under section 6.2 of **appendix A to 40 CFR part 75**, perform a linearity check, in accordance with the procedures in section 6.2 of **appendix A to 40 CFR part 75**, for each primary and redundant backup Hg at least once during each QA operating quarter, as defined in **40 CFR 72.2**. For Hg monitors, perform the linearity checks using NIST-traceable elemental Hg standards, or other NIST-traceable standards subject to the approval of the Department. Alternatively, the owner or operator may perform 3-level system integrity checks at the same three calibration gas levels (*i.e.*, low, mid, and high), using a NIST-traceable source of oxidized Hg, or other NIST-traceable standards subject to the approval of the Department. If choosing this option, the performance specification in paragraph (1)(i)(B) of this rule must be met at each gas level. For units using both a low and high span value, a linearity check is required only on the range(s) used to record and report emission data during the QA operating quarter. Conduct the linearity checks no less than 30 days apart, to the extent practicable.
(d) Standard RATA Frequencies. For each primary and redundant backup Hg concentration monitoring system and each sorbent trap monitoring system, RATAs must be performed annually, i.e., once every four successive QA operating quarters (as defined in **40 CFR 72.2**).
(e) RATA Load (or Operating) Levels and Additional RATA Requirements. For Hg concentration monitoring systems and sorbent trap monitoring systems, the required semiannual or annual RATA tests must be done at the load level (or operating level) designated as normal under section 6.5.2.1(d) of **appendix A to 40 CFR part 75**. If two load levels (or operating levels) are designated as normal, the required RATA(s) may be done at either load level (or operating level).
(f) Data Validation. Each time that a hands-off RATA of a Hg concentration monitoring system or a sorbent trap monitoring system is passed, perform a bias test in accordance with section 7.6.4 of **appendix A to 40 CFR part 75**. Apply the appropriate bias adjustment factor to the reported Hg data, in accordance with subsection (1)(g) of this rule.
(g) Bias Adjustment Factor. Except as otherwise specified in section 7.6.5 of **appendix A to 40 CFR part 75**, if an Hg concentration monitoring system or sorbent trap monitoring system fails the bias test, use the bias adjustment factor given in Equations A–11 and A–12 of **appendix A to 40 CFR part 75,** or a default bias adjustment factor of 1.250, to adjust the monitored data.
(h) Bias Adjusted Values. Use the bias-adjusted values in computing substitution values in the missing data procedure and in reporting the concentration of Hg during the quarter and calendar year. In addition, when using a Hg concentration or sorbent trap monitoring system and a flow monitor to calculate Hg mass emissions, use bias-adjusted values for Hg concentration and flow rate in the mass emission calculations and use bias-adjusted Hg concentrations to compute the appropriate substitution values for Hg concentration in the missing data routines.
(i) System Integrity Checks for Hg Monitors. For each Hg concentration monitoring system (except for a Hg monitor that does not have a converter), perform a single-point system integrity check weekly, i.e., at least once every 168 unit or stack operating hours, using a NIST-traceable source of oxidized Hg, or other NIST-traceable standards subject to the approval of the Department. Perform this check as follows using a mid- or high-level gas concentration, as defined in section 5.2 of **appendix A to 40 CFR part 75.**
(A) The performance specification in paragraph (1)(i)(B) must be met, otherwise the monitoring system is considered out-of-control, from the hour of the failed check until a subsequent system integrity check

is passed. If a required system integrity check is not performed and passed within 168 unit or stack operating hours of last successful check, the monitoring system shall also be considered out of control, beginning with the 169th unit of stack operating hour after the last successful check, and continuing until a subsequent system integrity check is passed. This weekly check is not required if the daily calibration assessments in subsection (1)(a) of this rule are performed using a NIST-traceable source of oxidized Hg, or other NIST-traceable standards subject to the approval of the Department.
(B) The measurement error for the linearity check must not exceed 10.0 percent of the reference value at any of the three gas levels.~~;~~ To calibrate the measurement error at each level, take the absolute value of the difference between the reference value and mean CEM response, divide the result by the reference value, and then multiply by 100. Alternatively, the results at any gas level are acceptable if the absolute value of the difference between the average monitor response and the average reference value, i.e., |R–A| in equation A–4 of **appendix A to 40 CFR part 75**, does not exceed 0.8 μg/m3.
(2) Missing data procedures. Except as provided in OAR 340-228-0617(11) and 340-228-0631(2), the owner or operator must provide substitute data from monitoring systems required under OAR 340-228-0613 for each affected unit as follows:
(a) For an owner or operator using an Hg concentration monitoring system, substitute for missing data in accordance with the applicable missing data procedures in **40 CFR 75.31 through 75.37** and OAR 340-228-0631 and 0633 whenever the unit combusts fuel and:
(A) A valid, quality-assured hour of Hg concentration data (in μg/m3) has not been measured and recorded, either by a certified Hg concentration monitoring system, by an appropriate reference method under OAR 340-228-0602(33) or **40 CFR 75.22**, or by an approved alternative monitoring method under **40 CFR part 75 subpart E**; or
(B) A valid, quality-assured hour of flow rate data (in scfh) has not been measured and recorded for a unit either by a certified flow monitor, by an appropriate EPA reference method under **40 CFR 75.22**, or by an approved alternative monitoring system under **40 CFR part 75 subpart E**; or
(C) A valid, quality-assured hour of moisture data (in percent H2O) has not been measured or recorded for an affected unit, either by a certified moisture monitoring system, by an appropriate EPA reference method under **40 CFR 75.22**, or an approved alternative monitoring method under **40 CFR part 75 subpart E**. This requirement does not apply when a default percent moisture value, as provided in **40 CFR 75.11(b)**, is used to account for the hourly moisture content of the stack gas, or when correction of the Hg concentration for moisture is not necessary; or
(D) A valid, quality-assured hour of heat input rate data (in MMBtu/hr) has not been measured and recorded for a unit, either by certified flow rate and diluent (CO_2 or O_2) monitors, by appropriate EPA reference methods under **40 CFR 75.22**, or by approved alternative monitoring systems under **40 CFR part 75 subpart E**.
(b) For an owner or operator using a sorbent trap monitoring system to quantify Hg mass emissions, substitute for missing data in accordance with the missing data procedures in OAR 340-228-0633.

CEMS Performance Specifications

340-228-0625
Specifications and Test Procedures for Total Vapor Phase Mercury CEMS
(1) Analyte. Mercury (Hg), CAS No. 7439-97-6.
(2) Applicability.

(a) This specification is for evaluating the acceptability of total vapor phase Hg CEMS installed on the exit gases from fossil fuel fired boilers at the time of or soon after installation and whenever specified in the regulations. The Hg CEMS must be capable of measuring the total concentration in µg/m3 (regardless of speciation) of vapor phase Hg, and recording that concentration on a wet or dry basis.
(b) Particle bound Hg is not included in the measurements.
(c) This specification is not designed to evaluate an installed CEMS's performance over an extended period of time nor does it identify specific calibration techniques and auxiliary procedures to assess the CEMS's performance. The source owner or operator, however, is responsible to calibrate, maintain, and operate the CEMS properly.
(d) The Department may require the operator to conduct CEMS performance evaluations at other times besides the initial test to evaluate the CEMS performance.
(e) The owner or operator must conduct the performance evaluation of the Hg CEMS according to OAR 340-228-0621(3)(d) and the following procedures:
(3) Summary of Performance Specification. Procedures for measuring CEMS relative accuracy, measurement error and drift are outlined. CEMS installation and measurement location specifications, and data reduction procedures are included. Conformance of the CEMS with the Performance Specification is determined.
(4) Definitions.
(a) "Continuous Emission Monitoring System (CEMS)" means the total equipment required for the determination of a pollutant concentration. The system consists of the following major subsystems:
(A) "Sample Interface" means that portion of the CEMS used for one or more of the following: sample acquisition, sample transport, sample conditioning, and protection of the monitor from the effects of the stack effluent.
(B) "Hg Analyzer" means that portion of the Hg CEMS that measures the total vapor phase Hg mass concentration and generates a proportional output.
(C) "Data Recorder" means that portion of the CEMS that provides a permanent electronic record of the analyzer output. The data recorder may provide automatic data reduction and CEMS control capabilities.
(b) "Span Value" means the upper limit of the intended Hg concentration measurement range. The span value is a value equal to two times the emission standard. Alternatively, the Hg span value(s) may be determined as follows:
(A) For each Hg monitor, determine a high span value, by rounding the maximum potential Hg concentration value from OAR 340-228-0602(25) upward to the next highest multiple of 10 µg/m3.
(B) For an affected unit equipped with an FGD system or a unit with add-on Hg emission controls, if the maximum expected Hg concentration value from OAR 340-228-0602(24) is less than 20 percent of the high span value from paragraph (4)(b)(A) of this rule, and if the high span value is 20 µg/m3 or greater, define a second, low span value of 10 µg/m3.
(C) If only a high span value is required, set the full-scale range of the Hg analyzer to be greater than or equal to the span value.
(D) If two span values are required, the owner or operator may either:
(i) Use two separate (high and low) measurement scales, setting the range of each scale to be greater than or equal to the high or low span value, as appropriate; or
(ii) Quality-assure two segments of a single measurement scale.
(c) "Measurement Error (ME)" means the absolute value of the difference between the concentration indicated by the Hg analyzer and the known concentration generated by a reference gas, expressed as a percentage of the span value, when the entire CEMS, including the sampling interface, is challenged. An

ME test procedure is performed to document the accuracy and linearity of the Hg CEMS at several points over the measurement range.
(d) "Upscale Drift (UD)" means the absolute value of the difference between the CEMS output response and an upscale Hg reference gas, expressed as a percentage of the span value, when the entire CEMS, including the sampling interface, is challenged after a stated period of operation during which no unscheduled maintenance, repair, or adjustment took place.
(e) "Zero Drift (ZD)" means the absolute value of the difference between the CEMS output response and a zero-level Hg reference gas, expressed as a percentage of the span value, when the entire CEMS, including the sampling interface, is challenged after a stated period of operation during which no unscheduled maintenance, repair, or adjustment took place.
(f) "Relative Accuracy (RA)" means the absolute mean difference between the pollutant concentration(s) determined by the CEMS and the value determined by the reference method (RM) plus the 2.5 percent error confidence coefficient of a series of tests divided by the mean of the RM tests. Alternatively, for low concentration sources, the RA may be expressed as the absolute value of the difference between the mean CEMS and RM values.
(5) Safety. The procedures required under this performance specification may involve hazardous materials, operations, and equipment. This performance specification may not address all of the safety problems associated with these procedures. It is the responsibility of the user to establish appropriate safety and health practices and determine the applicable regulatory limitations prior to performing these procedures. The CEMS user's manual and materials recommended by the RM should be consulted for specific precautions to be taken.
(6) Equipment and Supplies.
(a) CEMS Equipment Specifications.
(A) Data Recorder Scale. The Hg CEMS data recorder output range must include zero and a high level value. The high level value must be approximately two times the Hg concentration corresponding to the emission standard level for the stack gas under the circumstances existing as the stack gas is sampled. A lower high level value may be used, provided that the measured values do not exceed 95 percent of the high level value. Alternatively, the owner or operator may set the full-scale range(s) of the Hg analyzer according to subsection (4)(b) of this rule.
(B) The CEMS design should also provide for the determination of calibration drift at a zero value (zero to 20 percent of the span value) and at an upscale value (between 50 and 100 percent of the high-level value).
(b) Reference Gas Delivery System. The reference gas delivery system must be designed so that the flowrate of reference gas introduced to the CEMS is the same at all three challenge levels specified in subsection (7)(a) of this rule and at all times exceeds the flow requirements of the CEMS.
(c) Other equipment and supplies, as needed by the applicable reference method used. See paragraph (8)(f)(B) of this rule.
(7) Reagents and Standards.
(a) Reference Gases. Reference gas standards are required for both elemental and oxidized Hg (Hg and mercuric chloride, $HgCl2$). The use of National Institute of Standards and Technology (NIST)-certified or NIST-traceable standards and reagents is required. The following gas concentrations are required.
(A) Zero-level. 0 to 20 percent of the span value.
(B) Mid-level. 50 to 60 percent of the span value.
(C) High-level. 80 to 100 percent of the span value.

(b) Reference gas standards may also be required for the reference methods. See paragraph (8)(f)(B) of this rule.

(8) Performance Specification (PS) Test Procedure.

(a) Installation and Measurement Location Specifications.

(A) CEMS Installation. Install the CEMS at an accessible location downstream of all pollution control equipment. Since the Hg CEMS sample system normally extracts gas from a single point in the stack, use a location that has been shown to be free of stratification for SO_2 and NO_X through concentration measurement traverses for those gases. If the cause of failure to meet the RA test requirement is determined to be the measurement location and a satisfactory correction technique cannot be established, the Administrator may require the CEMS to be relocated. Measurement locations and points or paths that are most likely to provide data that will meet the RA requirements are listed below.

(B) Measurement Location. The measurement location should be (1) at least two equivalent diameters downstream of the nearest control device, point of pollutant generation or other point at which a change of pollutant concentration may occur, and (2) at least half an equivalent diameter upstream from the effluent exhaust. The equivalent duct diameter is calculated as per **appendix A to 40 CFR part 60**, Method 1.

(C) Hg CEMS Sample Extraction Point. Use a sample extraction point (1) no less than 1.0 meter from the stack or duct wall, or (2) within the centroidal velocity traverse area of the stack or duct cross section.

(b) RM Measurement Location and Traverse Points. Refer to PS 2 of **appendix B to 40 CFR part 60**. The RM and CEMS locations need not be immediately adjacent.

(c) ME Test Procedure. The Hg CEMS must be constructed to permit the introduction of known concentrations of Hg and HgCl2 separately into the sampling system of the CEMS immediately preceding the sample extraction filtration system such that the entire CEMS can be challenged. Sequentially inject each of the three reference gases (zero, mid-level, and high level) for each Hg species. Record the CEMS response and subtract the reference value from the CEMS value, and express the absolute value of the difference as a percentage of the span value. For each reference gas, the absolute value of the difference between the CEMS response and the reference value must not exceed 5 percent of the span value. If this specification is not met, identify and correct the problem before proceeding.

(d) UD Test Procedure.

(A) UD Test Period. While the affected facility is operating at more than 50 percent of normal load, or as specified in an applicable subpart, determine the magnitude of the UD once each day (at 24-hour intervals, to the extent practicable) for 7 consecutive unit operating days according to the procedure given in paragraphs (8)(d)(B) through (C) of this rule. The 7 consecutive unit operating days need not be 7 consecutive calendar days. Use either Hg^0 or HgCl2 standards for this test.

(B) The purpose of the UD measurement is to verify the ability of the CEMS to conform to the established CEMS response used for determining emission concentrations or emission rates. Therefore, if periodic automatic or manual adjustments are made to the CEMS zero and response settings, conduct the UD test immediately before these adjustments, or conduct it in such a way that the UD can be determined.

(C) Conduct the UD test at either the mid-level or high-level point specified in subsection (7)(a) of this rule. Introduce the reference gas to the CEMS. Record the CEMS response and subtract the reference value from the CEMS value, and express the absolute value of the difference as a percentage of the span value. For the reference gas, the absolute value of the difference between the CEMS response and the

reference value must not exceed 5 percent of the span value. If this specification is not met, identify and correct the problem before proceeding.
(e) ZD Test Procedure.
(A) ZD Test Period. While the affected facility is operating at more than 50 percent of normal load, or as specified in an applicable subpart, determine the magnitude of the ZD once each day (at 24-hour intervals, to the extent practicable) for 7 consecutive unit operating days according to the procedure given in paragraphs (8)(e)(B) through (C) of this rule. The 7 consecutive unit operating days need not be 7 consecutive calendar days. Use either nitrogen, air, Hg^0, or HgCl2 standards for this test.
(B) The purpose of the ZD measurement is to verify the ability of the CEMS to conform to the established CEMS response used for determining emission concentrations or emission rates. Therefore, if periodic automatic or manual adjustments are made to the CEMS zero and response settings, conduct the ZD test immediately before these adjustments, or conduct it in such a way that the ZD can be determined.
(C) Conduct the ZD test at the zero level specified in subsection (7)(a) of this rule. Introduce the zero gas to the CEMS. Record the CEMS response and subtract the zero value from the CEMS value and express the absolute value of the difference as a percentage of the span value. For the zero gas, the absolute value of the difference between the CEMS response and the reference value must not exceed 5 percent of the span value. If this specification is not met, identify and correct the problem before proceeding.
(f) RA Test Procedure.
(A) RA Test Period. Conduct the RA test according to the procedure given in paragraphs (8)(f)(B) through (F) of this rule while the affected facility is operating at normal full load, or as specified in an applicable subpart. The RA test may be conducted during the ZD and UD test period.
(B) RM. Use one of the reference methods specified in OAR 340-228-0602(33). Do not include the filterable portion of the sample when making comparisons to the CEMS results. When Method 29 or ASTM D6784–02 is used, conduct the RM test runs with paired or duplicate sampling systems. When an approved instrumental method is used, paired sampling systems are not required. If the RM and CEMS measure on a different moisture basis, data derived with Method 4 in **appendix A to 40 CFR part 60** must also be obtained during the RA test.
(C) Sampling Strategy for RM Tests. Conduct the RM tests in such a way that they will yield results representative of the emissions from the source and can be compared to the CEMS data. It is preferable to conduct moisture measurements (if needed) and Hg measurements simultaneously, although moisture measurements that are taken within an hour of the Hg measurements may be used to adjust the Hg concentrations to a consistent moisture basis. In order to correlate the CEMS and RM data properly, note the beginning and end of each RM test period for each paired RM run (including the exact time of day) on the CEMS chart recordings or other permanent record of output.
(D) Number and length of RM Tests. Conduct a minimum of nine RM test runs. When Method 29 or ASTM D6784–02 is used, only test runs for which the data from the paired RM trains meet the relative deviation (RD) criteria of this PS must be used in the RA calculations. In addition, for Method 29 and ASTM D 6784–02, use a minimum sample run time of 2 hours. **Note:** More than nine sets of RM tests may be performed. If this option is chosen, paired RM test results may be excluded so long as the total number of paired RM test results used to determine the CEMS RA is greater than or equal to nine. However, all data must be reported, including the excluded data.
(E) Correlation of RM and CEMS Data. Correlate the CEMS and the RM test data as to the time and duration by first determining from the CEMS final output (the one used for reporting) the integrated

average pollutant concentration for each RM test period. Consider system response time, if important, and confirm that the results are on a consistent moisture basis with the RM test. Then, compare each integrated CEMS value against the corresponding RM value. When Method 29 or ASTM D6784–02 is used, compare each CEMS value against the corresponding average of the paired RM values.
(F) Paired RM Outliers.
(i) When Method 29 or ASTM D6784–02 is used, outliers are identified through the determination of relative deviation (RD) of the paired RM tests. Data that do not meet this criteria should be flagged as a data quality problem. The primary reason for performing paired RM sampling is to ensure the quality of the RM data. The percent RD of paired data is the parameter used to quantify data quality. Determine RD for two paired data points as follows:

$$RD=100 \times |(Ca-Cb)|/(Ca+Cb)$$

where Ca and Cb are concentration values determined from each of the two samples respectively.
(ii) A minimum performance criteria for RM Hg data is that RD for any data pair must be ≤10 percent as long as the mean Hg concentration is greater than 1.0 µg/m3. If the mean Hg concentration is less than or equal to 1.0 µg/m3, the RD must be ≤20 percent. Pairs of RM data exceeding these RD criteria should be eliminated from the data set used to develop a Hg CEMS correlation or to assess CEMS RA.
(G) Calculate the mean difference between the RM and CEMS values in the units of micrograms per cubic meter (µg/m3), the standard deviation, the confidence coefficient, and the RA according to the procedures in section (10) of this rule.
(g) Reporting. At a minimum (check with the Department for additional requirements, if any), summarize in tabular form the results of the RD tests and the RA tests or alternative RA procedure, as appropriate. Include all data sheets, calculations, charts (records of CEMS responses), reference gas concentration certifications, and any other information necessary to confirm that the performance of the CEMS meets the performance criteria.
(9) Analytical Procedure. Sample collection and analysis are concurrent for this PS (see section (8) of this rule). Refer to the RM employed for specific analytical procedures.
(10) Calculations and Data Analysis. Summarize the results on a data sheet similar to that shown in Figure 2–2 for PS 2.
(a) Consistent Basis. All data from the RM and CEMS must be compared in units of µg/m3, on a consistent and identified moisture and volumetric basis (STP = 20°C, 760 millimeters (mm) Hg).
(b) Moisture Correction (as applicable). If the RM and CEMS measure Hg on a different moisture basis, using the following equation to make the appropriate corrections to the Hg concentrations.

$$Concentration(dry) = Concentration(wet)/(1-B_{ws})$$

In the above equation, Bws is the moisture content of the flue gas from Method 4, expressed as a decimal fraction (*e.g.*, for 8.0 percent H2O, Bws = 0.08).
(c) Arithmetic Mean. Calculate the arithmetic mean of the difference, d, of a data set using equation 2 to this division.
(d) Standard Deviation. Calculate the standard deviation, Sd, using equation 3 to this division.
(e) Confidence Coefficient (CC). Calculate the 2.5 percent error confidence coefficient (one-tailed), CC, using equation 4 to this division.
(f) RA. Calculate the RA of a set of data using equation 5 to this division.

(11) Performance Specifications.

(a) ME. ME is assessed at zero-level, mid-level and high-level values as given below using standards for both Hg^0 and HgCl2. The mean difference between the indicated CEMS concentration and the reference concentration value for each standard must be no greater than 5 percent of the span value.

(b) UD. The UD must not exceed 5 percent of the span value on any of the 7 days of the UD test.

(c)ZD. The ZD must not exceed 5 percent of the span value on any of the 7 days of the ZD test.

(d) RA. The RA of the CEMS must be no greater than 20 percent of the mean value of the RM test data in terms of units of µg/m3. Alternatively, if the mean RM is less than 5.0 µg/m3, the results are acceptable if the absolute value of the difference between the mean RM and CEMS values does not exceed 1.0 µg/m3.

(12) Bibliography.

(a) 40 CFR part 60, appendix B, ''Performance Specification 2—Specifications and Test Procedures for SO_2 and NO_X Continuous Emission Monitoring Systems in Stationary Sources.''

(b) 40 CFR part 60, appendix A, ''Method 29—Determination of Metals Emissions from Stationary Sources.''

(c) ASTM Method D6784–02, ''Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method).''

(13) The following values are already corrected for n–1 degrees of freedom. Use n equal to the number of individual values.

(a) For n = 2, $t_{0.975}$ = 12.706.
(b) For n = 3, $t_{0.975}$ = 4.303.
(c) For n = 4, $t_{0.975}$ = 3.182.
(d) For n = 5, $t_{0.975}$ = 2.776.
(e) For n = 6, $t_{0.975}$ = 2.571.
(f) For n = 7, $t_{0.975}$ = 2.447.
(g) For n = 8, $t_{0.975}$ = 2.365.
(h) For n = 9, $t_{0.975}$ = 2.306.
(i) For n = 10, $t_{0.975}$ = 2.262.
(j) For n = 11, $t_{0.975}$ = 2.228.
(k) For n = 12, $t_{0.975}$ = 2.201.
(l) For n = 13, $t_{0.975}$ = 2.179.
(m) For n = 14, $t_{0.975}$ = 2.160.
(n) For n = 15, $t_{0.975}$ = 2.145.
(o) For n = 16, $t_{0.975}$ = 2.131.

Sorbent Trap Sampling Procedures

340-228-0627
Quality Assurance and Operating Procedures for Sorbent Trap Monitoring Systems

(1) Scope and Application. This rule specifies sampling, and analytical, and quality-assurance criteria and procedures for the performance-based monitoring of vapor-phase mercury (Hg) emissions in combustion flue gas streams, using a sorbent trap monitoring system (as defined in OAR 340-228-0602). The principle employed is continuous sampling using in-stack sorbent media coupled with analysis of the integrated samples. The performance-based approach of this rule allows for use of various suitable sampling and analytical technologies while maintaining a specified and documented level of data quality

through performance criteria. Persons using this rule should have a thorough working knowledge of Methods 1, 2, 3, 4 and 5 in **appendices A–1 through A–3 to 40 CFR part 60**, as well as the determinative technique selected for analysis.
(a) Analytes. The analyte measured by these procedures and specifications is total vapor-phase Hg in the flue gas, which represents the sum of elemental Hg (Hg^0, CAS Number 7439–97–6) and oxidized forms of Hg, in mass concentration units of micrograms per dry standard cubic meter (µg/dscm).
(b) Applicability. These performance criteria and procedures are applicable to monitoring of vapor-phase Hg emissions under relatively low-dust conditions (*i.e.*, sampling in the stack after all pollution control devices), from coal-fired electric utility steam generators. Individual sample collection times can range from 30 minutes to several days in duration, depending on the Hg concentration in the stack. The monitoring system must achieve the performance criteria specified in section (8) of this rule and the sorbent media capture ability must not be exceeded. The sampling rate must be maintained at a constant proportion to the total stack flowrate to ensure representativeness of the sample collected. Failure to achieve certain performance criteria will result in invalid Hg emissions monitoring data.
(2) Principle. Known volumes of flue gas are extracted from a stack or duct through paired, in-stack, pre-spiked sorbent media traps at an appropriate nominal flow rate. Collection of Hg on the sorbent media in the stack mitigates potential loss of Hg during transport through a probe/sample line. Paired train sampling is required to determine measurement precision and verify acceptability of the measured emissions data. The sorbent traps are recovered from the sampling system, prepared for analysis, as needed, and analyzed by any suitable determinative technique that can meet the performance criteria. A section of each sorbent trap is spiked with Hg^0 prior to sampling. This section is analyzed separately and the recovery value is used to correct the individual Hg sample for measurement bias.
(3) Clean Handling and Contamination. To avoid Hg contamination of the samples, special attention should be paid to cleanliness during transport, field handling, sampling, recovery, and laboratory analysis, as well as during preparation of the sorbent cartridges. Collection and analysis of blank samples (field, trip, lab) is useful in verifying the absence of contaminant Hg.
(4) Safety.
(a) Site hazards. Site hazards must be thoroughly considered in advance of applying these procedures/specifications in the field; advance coordination with the site is critical to understand the conditions and applicable safety policies. At a minimum, portions of the sampling system will be hot, requiring appropriate gloves, long sleeves, and caution in handling this equipment.
(b) Laboratory safety policies. Laboratory safety policies should be in place to minimize risk of chemical exposure and to properly handle waste disposal. Personnel must wear appropriate laboratory attire according to a Chemical Hygiene Plan established by the laboratory.
(c) Toxicity or carcinogenicity. The toxicity or carcinogenicity of any reagents used must be considered. Depending upon the sampling and analytical technologies selected, this measurement may involve hazardous materials, operations, and equipment and this rule does not address all of the safety problems associated with implementing this approach. It is the responsibility of the user to establish appropriate safety and health practices and determine the applicable regulatory limitations prior to performance. Any chemical should be regarded as a potential health hazard and exposure to these compounds should be minimized. Chemists should refer to the Material Safety Data Sheet (MSDS) for each chemical used.
(d) Wastes. Any wastes generated by this procedure must be disposed of according to a hazardous materials management plan that details and tracks various waste streams and disposal procedures.
(5) Equipment and Supplies. The following list is presented as an example of key equipment and supplies likely required to perform vapor-phase Hg monitoring using a sorbent trap monitoring system.

It is recognized that additional equipment and supplies may be needed. Collection of paired samples is required. Also required are a certified stack gas volumetric flow monitor that meets the requirements of **40 CFR 75.10** and an acceptable means of correcting for the stack gas moisture content, *i.e.*, either by using data from a certified continuous moisture monitoring system or by using an approved default moisture value (see **40 CFR 75.11(b)**).

(a) Sorbent Trap Monitoring System. The monitoring system must include the following components:

(A) Sorbent Traps. The sorbent media used to collect Hg must be configured in a trap with three distinct and identical segments or sections, connected in series, that are amenable to separate analyses. Section 1 is designated for primary capture of gaseous Hg. Section 2 is designated as a backup section for determination of vapor-phase Hg breakthrough. Section 3 is designated for QA/QC purposes where this section must be spiked with a known amount of gaseous Hg^0 prior to sampling and later analyzed to determine recovery efficiency. The sorbent media may be any collection material (*e.g.*, carbon, chemically-treated filter, etc.) capable of quantitatively capturing and recovering for subsequent analysis, all gaseous forms of Hg for the intended application. Selection of the sorbent media must be based on the material's ability to achieve the performance criteria contained in section (8) of this rule as well as the sorbent's vapor phase Hg capture efficiency for the emissions matrix and the expected sampling duration at the test site. The sorbent media must be obtained from a source that can demonstrate the quality assurance and control necessary to ensure consistent reliability. The paired sorbent traps are supported on a probe (or probes) and inserted directly into the flue gas stream.

(B) Sampling Probe Assembly. Each probe assembly must have a leak-free attachment to the sorbent trap(s). Each sorbent trap must be mounted at the entrance of or within the probe such that the gas sampled enters the trap directly. Each probe/sorbent trap assembly must be heated to a temperature sufficient to prevent liquid condensation in the sorbent trap(s). Auxiliary heating is required only where the stack temperature is too low to prevent condensation. Use a calibrated thermocouple to monitor the stack temperature. A single probe capable of operating the paired sorbent traps may be used. Alternatively, individual probe/sorbent trap assemblies may be used, provided that the individual sorbent traps are co-located to ensure representative Hg monitoring and are sufficiently separated to prevent aerodynamic interference.

(C) Moisture Removal Device. A robust moisture removal device or system, suitable for continuous duty (such as a Peltier cooler), must be used to remove water vapor from the gas stream prior to entering the dry gas meter.

(D) Vacuum Pump. Use a leak-tight, vacuum pump capable of operating within the candidate system's flow range.

(E) Dry Gas Meter. A dry gas meter must be used to determine total sample volume. The meter must be sufficiently accurate to measure the total sample volume within 2 percent, must be calibrated at the selected flow rate and conditions actually encountered during sampling, and must be equipped with a temperature sensor capable of measuring typical meter temperatures accurately to within 3^{o}C for correcting final sample volume.

(F) Sample Flow Rate Meter and Controller. Use a flow rate indicator and controller for maintaining necessary sampling flow rates.

(G) Temperature Sensor. Same as Section 6.1.1.7 of Method 5 in **appendix A–3 to 40 CFR part 60**.

(H) Barometer. Same as Section 6.1.2 of Method 5 in **appendix A–3 to 40 CFR part 60**.

(I) Data Logger (Optional). Device for recording associated and necessary ancillary information (e.g., temperatures, pressures, flow, time, etc.).

(b) Gaseous Hg^0 Sorbent Trap Spiking System. A known mass of gaseous Hg^0 must be spiked onto section 3 of each sorbent trap prior to sampling. Any approach capable of quantitatively delivering known masses of Hg^0 onto sorbent traps is acceptable. Several technologies or devices are available to meet this objective. Their practicality is a function of Hg mass spike levels. For low levels, NIST-certified or NIST-traceable gas generators or tanks may be suitable, but will likely require long preparation times. A more practical, alternative system, capable of delivering almost any mass required, makes use of NIST-certified or NIST-traceable Hg salt solutions (*e.g.*, Hg(NO3)2). With this system, an aliquot of known volume and concentration is added to a reaction vessel containing a reducing agent (*e.g.*, stannous chloride); the Hg salt solution is reduced to Hg^0 and purged onto section 3 of the sorbent trap using an impinger sparging system.
(c) Sample Analysis Equipment. Any analytical system capable of quantitatively recovering and quantifying total gaseous Hg from sorbent media is acceptable provided that the analysis can meet the performance criteria in section (8) of this rule. Candidate recovery techniques include leaching, digestion, and thermal desorption. Candidate analytical techniques include ultraviolet atomic fluorescence (UV AF); ultraviolet atomic absorption (UV AA), with and without gold trapping; and in situ X-ray fluorescence (XRF) analysis.
(6) Reagents and Standards. Only NIST-certified or NIST-traceable calibration gas standards and reagents must be used for the tests and procedures required under this rule.
(7) Sample Collection and Transport.
(a) Pre-Test Procedures.
(A) Selection of Sampling Site. Sampling site information should be obtained in accordance with Method 1 in **appendix A–1 to 40 CFR part 60**. Identify a monitoring location representative of source Hg emissions. Locations shown to be free of stratification through measurement traverses for gases such as SO_2 and NO_X may be one such approach. An estimation of the expected stack Hg concentration is required to establish a target sample flow rate, total gas sample volume, and the mass of Hg^0 to be spiked onto section 3 of each sorbent trap.
(B) Pre-Sampling Spiking of Sorbent Traps. Based on the estimated Hg concentration in the stack, the target sample rate and the target sampling duration, calculate the expected mass loading for section 1 of each sorbent trap (for an example calculation, see subsection (12)(a) of this rule). The pre-sampling spike to be added to section 3 of each sorbent trap must be within + 50 percent of the expected section 1 mass loading. Spike section 3 of each sorbent trap at this level, as described in subsection (5)(b) of this rule. For each sorbent trap, keep an official record of the mass of Hg^0 added to section 3. This record must include, at a minimum, the ID number of the trap, the date and time of the spike, the name of the analyst performing the procedure, the mass of Hg^0 added to section 3 of the trap (µg), and the supporting calculations. This record must be maintained in a format suitable for inspection and audit and must be made available to the regulatory agencies upon request.
(C) Pre-test Leak Check. Perform a leak check with the sorbent traps in place. Draw a vacuum in each sample train. Adjust the vacuum in the sample train to +15″ Hg. Using the dry gas meter, determine leak rate. The leakage rate must not exceed 4 percent of the target sampling rate. Once the leak check passes this criterion, carefully release the vacuum in the sample train then seal the sorbent trap inlet until the probe is ready for insertion into the stack or duct.
(D) Determination of Flue Gas Characteristics. Determine or measure the flue gas measurement environment characteristics (gas temperature, static pressure, gas velocity, stack moisture, etc.) in order to determine ancillary requirements such as probe heating requirements (if any), initial sample rate, proportional sampling conditions, moisture management, etc.

(b) Sample Collection.
(A) Remove the plug from the end of each sorbent trap and store each plug in a clean sorbent trap storage container. Remove the stack or duct port cap and insert the probe(s). Secure the probe(s) and ensure that no leakage occurs between the duct and environment.
(B) Record initial data including the sorbent trap ID, start time, starting dry gas meter readings, initial temperatures, setpoints, and any other appropriate information.
(C) Flow Rate Control. Set the initial sample flow rate at the target value from paragraph (7)(a)(A) of this rule. Record the initial dry gas meter reading, stack temperature, meter temperatures, etc. Then, for every operating hour during the sampling period, record the date and time, the sample flow rate, the gas meter reading, the stack temperature, the flow meter temperatures, temperatures of heated equipment such as the vacuum lines and the probes (if heated), and the sampling system vacuum readings. Also record the stack gas flow rate, as measured by the certified flow monitor, and the ratio of the stack gas flow rate to the sample flow rate. Adjust the sampling flow rate to maintain proportional sampling, *i.e.*, keep the ratio of the stack gas flow rate to sample flow rate constant, to within + 25 percent of the reference ratio from the first hour of the data collection period (see section (11) of this rule). The sample flow rate through a sorbent trap monitoring system during any hour (or portion of an hour) in which the unit is not operating shall be zero.
(D) Stack Gas Moisture Determination. Determine stack gas moisture using a continuous moisture monitoring system, as described in **40 CFR 75.11(b)**. Alternatively, the owner or operator may use the appropriate fuel-specific moisture default value provided in **40 CFR 75.11**, or a site specific moisture default value approved by petition under **40 CFR 75.66**.
(E) Essential Operating Data. Obtain and record any essential operating data for the facility during the test period, *e.g.*, the barometric pressure must be obtained for correcting sample volume to standard conditions. At the end of the data collection period, record the final dry gas meter reading and the final values of all other essential parameters.
(F) Post Test Leak Check. When sampling is completed, turn off the sample pump, remove the probe/sorbent trap from the port and carefully re-plug the end of each sorbent trap. Perform a leak check with the sorbent traps in place, at the maximum vacuum reached during the sampling period. Use the same general approach described in paragraph (7)(a)(C) of this rule. Record the leakage rate and vacuum. The leakage rate must not exceed 4 percent of the average sampling rate for the data collection period. Following the leak check, carefully release the vacuum in the sample train.
(G) Sample Recovery. Recover each sampled sorbent trap by removing it from the probe, sealing both ends. Wipe any deposited material from the outside of the sorbent trap. Place the sorbent trap into an appropriate sample storage container and store/preserve in appropriate manner.
(H) Sample Preservation, Storage, and Transport. While the performance criteria of this approach provide for verification of appropriate sample handling, it is still important that the user consider, determine, and plan for suitable sample preservation, storage, transport, and holding times for these measurements. Therefore, procedures in ASTM D6911–03 ''Standard Guide for Packaging and Shipping Environmental Samples for Laboratory Analysis'' must be followed for all samples.
(I) Sample Custody. Proper procedures and documentation for sample chain of custody are critical to ensuring data integrity. The chain of custody procedures in ASTM D4840–99 (reapproved 2004) ''Standard Guide for Sample Chain-of-Custody Procedures'' must be followed for all samples (including field samples and blanks).
(8) Quality Assurance and Quality Control. The owner and operator using a sorbent trap monitoring system must develop and implement a quality assurance/quality control (QA/QC) program. At a

minimum, include in each QA/QC program a written plan that describes in detail (or that refers to separate documents containing) complete, step-by-step procedures and operations. Upon request from the Department, the owner or operator must make all procedures, maintenance records, and ancillary supporting documentation from the manufacturer (e.g., software coefficients and troubleshooting diagrams) available for review during an audit. Electronic storage of the information in the QA/QC plan is permissible, provided that the information can be made available in hardcopy upon request during an audit. Table 2 to this division summarizes the QA/QC performance criteria that are used to validate the Hg emissions data from sorbent trap monitoring systems, including the relative accuracy test audit (RATA) requirement (see section 6.5.7 of **appendix A to 40 CFR part 75** and section 2.3 of **appendix B to 40 CFR part 75**, except that for sorbent trap monitoring systems, RATAs must be performed annually, i.e., once every four successive QA operating quarters). The RATA must meet the requirements in OAR 340-228-0621(3)(d)(C)(iii). Except as provided in OAR 340-228-0617(8) and as otherwise indicated in Table 2 to this division, failure to achieve these performance criteria will result in invalidation of Hg emissions data.
(9) Quality Assurance and Quality Control Plan Content. In addition to section 1 of **Appendix B to 40 CFR part 75**, the QA/QC plan must contain the following:
(a) Sorbent Trap Identification and Tracking. Include procedures for inscribing or otherwise permanently marking a unique identification number on each sorbent trap, for tracking purposes. Keep records of the ID of the monitoring system in which each sorbent trap is used, and the dates and hours of each Hg collection period.
(b) Monitoring System Integrity and Data Quality. Explain the procedures used to perform the leak checks when a sorbent trap is placed in service and removed from service. Also explain the other QA procedures used to ensure system integrity and data quality, including, but not limited to, dry gas meter calibrations, verification of moisture removal, and ensuring air-tight pump operation. In addition, the QA plan must include the data acceptance and quality control criteria in section (8) of this rule.
(c) Hg Analysis. Explain the chain of custody employed in packing, transporting, and analyzing the sorbent traps (see paragraphs (7)(b)(H) and (I) of this rule). Keep records of all Hg analyses. The analyses must be performed in accordance with the procedures described in section (11) of this rule.
(d) Laboratory Certification. The QA Plan must include documentation that the laboratory performing the analyses on the carbon sorbent traps is certified by the International Organization for Standardization (ISO) to have a proficiency that meets the requirements of ISO 17025. Alternatively, if the laboratory performs the spike recovery study described in subsection (11)(c) of this rule and repeats that procedure annually, ISO certification is not required.
(10) Calibration and Standardization.
(a) Only NIST-certified and NIST-traceable calibration standards (i.e., calibration gases, solutions, etc.) must be used for the spiking and analytical procedures in this rule.
(b) Dry Gas Meter Calibration. Prior to its initial use, perform a full calibration of the metering system at three orifice settings to determine the average dry gas meter coefficient (Y), as described in section 10.3.1 of Method 5 in **appendix A–3 to 40 CFR part 60**. Thereafter, recalibrate the metering system quarterly at one intermediate orifice setting, as described in section 10.3.2 of Method 5 in **appendix A–3 to 40 CFR part 60**. If a quarterly recalibration shows that the value of Y has changed by more than 5 percent, repeat the full calibration of the metering system to determine a new value of Y.
(c) Thermocouples and Other Temperature Sensors. Use the procedures and criteria in section 10.3 of Method 2 in **appendix A–1 to 40 CFR part 60** to calibrate in-stack temperature sensors and thermocouples. Dial thermometers must be calibrated against mercury-in-glass thermometers.

Calibrations must be performed prior to initial use and at least quarterly thereafter. At each calibration point, the absolute temperature measured by the temperature sensor must agree to within + 1.5 percent of the temperature measured with the reference sensor, otherwise the sensor may not continue to be used.
(d) Barometer. Calibrate against a mercury barometer. Calibration must be performed prior to initial use and at least quarterly thereafter. At each calibration point, the absolute pressure measured by the barometer must agree to within + 10 mm Hg of the pressure measured by the mercury barometer, otherwise the barometer may not continue to be used.
(e) Other Sensors and Gauges. Calibrate all other sensors and gauges according to the procedures specified by the instrument manufacturer(s).
(f) Analytical System Calibration. See subsection (10)(a) of this rule.
(11) Analytical Procedures. The analysis of the Hg samples may be conducted using any instrument or technology capable of quantifying total Hg from the sorbent media and meeting the performance criteria in section (8) of this rule.
(a) Analyzer System Calibration. Perform a multipoint calibration of the analyzer at three or more upscale points over the desired quantitative range (multiple calibration ranges must be calibrated, if necessary). The field samples analyzed must fall within a calibrated, quantitative range and meet the necessary performance criteria. For samples that are suitable for aliquotting, a series of dilutions may be needed to ensure that the samples fall within a calibrated range. However, for sorbent media samples that are consumed during analysis (*e.g.,* thermal desorption techniques), extra care must be taken to ensure that the analytical system is appropriately calibrated prior to sample analysis. The calibration curve range(s) should be determined based on the anticipated level of Hg mass on the sorbent media. Knowledge of estimated stack Hg concentrations and total sample volume may be required prior to analysis. The calibration curve for use with the various analytical techniques (*e.g.,* UV AA, UV AF, and XRF) can be generated by directly introducing standard solutions into the analyzer or by spiking the standards onto the sorbent media and then introducing into the analyzer after preparing the sorbent/standard according to the particular analytical technique. For each calibration curve, the value of the square of the linear correlation coefficient, i.e., r2, must be ≥ 0.99, and the analyzer response must be within + 10 percent of reference value at each upscale calibration point. Calibrations must be performed on the day of the analysis, before analyzing any of the samples. Following calibration, an independently prepared standard (not from same calibration stock solution) must be analyzed. The measured value of the independently prepared standard must be within + 10 percent of the expected value.
(b) Sample Preparation. Carefully separate the three sections of each sorbent trap. Combine for analysis all materials associated with each section, *i.e.,* any supporting substrate that the sample gas passes through prior to entering a media section (*e.g.,* glass wool, polyurethane foam, etc.) must be analyzed with that segment.
(c) Spike Recovery Study. Before analyzing any field samples, the laboratory must demonstrate the ability to recover and quantify Hg from the sorbent media by performing the following spike recovery study for sorbent media traps spiked with elemental mercury. Using the procedures described in subsections (5)(b) and (11)(a) of this rule, spike the third section of nine sorbent traps with gaseous Hg^0, *i.e.,* three traps at each of three different mass loadings, representing the range of masses anticipated in the field samples. This will yield a 3 x 3 sample matrix. Prepare and analyze the third section of each spiked trap, using the techniques that will be used to prepare and analyze the field samples. The average recovery for each spike concentration must be between 85 and 115 percent. If multiple types of sorbent

media are to be analyzed, a separate spike recovery study is required for each sorbent material. If multiple ranges are calibrated, a separate spike recovery study is required for each range.
(d) Field Sample Analyses. Analyze the sorbent trap samples following the same procedures that were used for conducting the spike recovery study. The three sections of the sorbent trap must be analyzed separately (i.e., section 1, then section 2, then section 3). Quantify the mass of total Hg for each section based on analytical system response and the calibration curve from subsection (10)(a) of this rule. Determine the spike recovery from sorbent trap section 3. Pre-sampling spike recoveries must be between 75 and 125 percent. To report final Hg mass, normalize the data for sections 1 and 2 based on the sample-specific spike recovery, and add the normalized masses together.
(12) Calculations and Data Analysis.
(a) Calculation of Pre-Sampling Spiking Level. Determine sorbent trap section 3 spiking level using estimates of the stack Hg concentration, the target sample flow rate, and the expected sample duration. First, calculate the expected Hg mass that will be collected in section 1 of the trap. The presampling spike must be within + 50 percent of this mass. Example calculation: For an estimated stack Hg concentration of 5 µg/m3, a target sample rate of 0.30 L/min, and a sample duration of 5 days:

(0.30 L/min) (1440 min/day) (5 days) (10^{-3} m3/liter) (5µg/m3) = 10.8 µg

A pre-sampling spike of 10.8 µg + 50 percent is, therefore, appropriate.
(b) Calculations for Flow-Proportional Sampling. For the first hour of the data collection period, determine the reference ratio of the stack gas volumetric flow rate to the sample flow rate, as follows:

Rref = K x Qref / Fref

Where:
Rref = Reference ratio of hourly stack gas flow rate to hourly sample flow rate
Qref = Average stack gas volumetric flow rate for first hour of collection period, adjusted for bias, if necessary according to section 7.6.5 of **appendix A to 40 CFR part 75**, (scfh)
Fref = Average sample flow rate for first hour of the collection period, in appropriate units (*e.g.*, liters/min, cc/min, dscm/min)
K = Power of ten multiplier, to keep the value of Rref between 1 and 100. The appropriate K value will depend on the selected units of measure for the sample flow rate. Then, for each subsequent hour of the data collection period, calculate ratio of the stack gas flow rate to the sample flow rate using the following equation:

Rh = K x Qh / Fh

Where:
Rh = Ratio of hourly stack gas flow rate to hourly sample flow rate
Qh = Average stack gas volumetric flow rate for the hour, adjusted for bias, if necessary, according to section 7.6.5 of **appendix A to 40 CFR part 75**, (scfh)
Fh = Average sample flow rate for the hour, in appropriate units (*e.g.*, liters/min, cc/min, dscm/min)
K = Power of ten multiplier, to keep the value of Rh between 1 and 100. The appropriate K value will depend on the selected units of measure for the sample flow rate and the range of expected stack gas flow rates.

Maintain the value of Rh within + 25 percent of Rref throughout the data collection period.

(c) Calculation of Spike Recovery. Calculate the percent recovery of each section 3 spike, as follows:

%R = (M3/Ms) x 100

Where:
%R = Percentage recovery of the presampling spike
M3 = Mass of Hg recovered from section 3 of the sorbent trap, (µg)
Ms = Calculated Hg mass of the pre-sampling spike, from paragraph (7)(a)(B) of this rule, (µg)

(d) Calculation of Breakthrough. Calculate the percent breakthrough to the second section of the sorbent trap, as follows:

%B = (M2/M1) x 100

Where:
%B = Percent breakthrough
M2 = Mass of Hg recovered from section 2 of the sorbent trap, (µg)
M1 = Mass of Hg recovered from section 1 of the sorbent trap, (µg)

(e) Normalizing Measured Hg Mass for Section 3 Spike Recoveries. Based on the results of the spike recovery in subsection (12)(c) of this rule, normalize the Hg mass collected in sections 1 and 2 of the sorbent trap, as follows:

M* = ((M1+M2) x Ms) / M3

Where:
M* = Normalized total mass of Hg recovered from sections 1 and of the sorbent trap, (µg)
M1 = Mass of Hg recovered from section 1 of the sorbent trap, unadjusted, (µg)
M2 = Mass of Hg recovered from section 2 of the sorbent trap, unadjusted, (µg)
Ms = Calculated Hg mass of the pre-sampling spike, from paragraph (7)(a)(B) of this rule, (µg)
M3 = Mass of Hg recovered from section 3 of the sorbent trap, (µg)

(f) Calculation of Hg Concentration. Calculate the Hg concentration for each sorbent trap, using the following equation:

C = M* / Vt

Where:
C = Concentration of Hg for the collection period, (µg/dscm)
M* = Normalized total mass of Hg recovered from sections 1 and 2 of the sorbent trap, (µg)
Vt = Total volume of dry gas metered during the collection period, (dscm). For the purposes of this rule, standard temperature and pressure are defined as 20^{o}C and 760 mm Hg, respectively.

(g) Calculation of Paired Trap Agreement. Calculate the relative deviation (RD) between the Hg concentrations measured with the paired sorbent traps as follows:

RD = (|Ca – Cb| / (Ca + Cb)) x 100

Where:
RD = Relative deviation between the Hg concentrations from traps ''a'' and ''b'' (percent)
Ca = Concentration of Hg for the collection period, for sorbent trap ''a'' (µg/dscm)
Cb = Concentration of Hg for the collection period, for sorbent trap ''b'' (µg/dscm)
(h) Calculation of Hg Mass Emissions. To calculate Hg mass emissions, follow the procedures in OAR 340-228-0619(1)(b). Use the average of the two Hg concentrations from the paired traps in the calculations, except as provided in OAR 340-228-0617(8) or in Table 2 to this division.
(13) Method Performance. These monitoring criteria and procedures have been applied to coal-fired utility boilers (including units with post-combustion emission controls), having vapor-phase Hg concentrations ranging from 0.03 µg/dscm to 100 µg/dscm.

Out of Control Periods

340-228-0629
Out of Control Periods and Adjustment for System Bias
(1) Whenever any monitoring system fails to meet the quality-assurance and quality-control requirements or data validation requirements of OAR 340-228-0623, data must be substituted using the applicable missing data procedures.
(2) Audit decertification. Whenever both an audit of a monitoring system and a review of the initial certification or recertification application reveal that any monitoring system should not have been certified or recertified because it did not meet a particular performance specification or other requirement under OAR 340-228-0621 or the applicable provisions of **40 CFR part 75**, both at the time of the initial certification or recertification application submission and at the time of the audit, the Department will issue a notice of disapproval of the certification status of such monitoring system. For the purposes of this section, an audit must be either a field audit or an audit of any information submitted to the Department. By issuing the notice of disapproval, the Department revokes prospectively the certification status of the monitoring system. The data measured and recorded by the monitoring system must not be considered valid quality-assured data from the date of issuance of the notification of the revoked certification status until the date and time that the owner or operator completes subsequently approved initial certification or recertification tests for the monitoring system. The owner or operator must follow the applicable initial certification or recertification procedures in OAR 340-228-0621 for each disapproved monitoring system.
(3) When the bias test indicates that a flow monitor, a Hg concentration monitoring system or a sorbent trap monitoring system is biased low (*i.e.*, the arithmetic mean of the differences between the reference method value and the monitor or monitoring system measurements in a relative accuracy test audit exceed the bias statistic), the owner or operator must adjust the monitor or continuous emission monitoring system to eliminate the cause of bias such that it passes the bias test or calculate and use the bias adjustment factor given in Equations A-11 and A-12 of **appendix A to 40 CFR part 75**, to adjust the monitored data.

Missing Data Procedure

340-228-0631
Standard Missing Data Procedures for Hg CEMS

(1) Once 720 quality assured monitor operating hours of Hg concentration data have been obtained following initial certification, the owner or operator must provide substitute data for Hg concentration in accordance with the procedures in **40 CFR 75.33(b)(1) through (b)(4)**, except that the term "Hg concentration" shall apply rather than "SO_2 concentration," the term "Hg concentration monitoring system" shall apply rather than "SO_2 pollutant concentration monitor," the term "maximum potential Hg concentration," as defined in 340-228-0602(25) shall apply, rather than "maximum potential SO_2 concentration", and the percent monitor data availability trigger conditions prescribed for Hg in Table 1 of this division shall apply rather than the trigger conditions prescribed for SO2.
(2) For a unit equipped with add-on Hg emission controls (e.g., carbon injection), the standard missing data procedures in section (1) of this rule may only be used for hours in which the Hg emission controls are documented to be operating properly, as described in OAR 340-228-0635(6). For any hour(s) in the missing data period for which this documentation is unavailable, the owner or operator must report, as applicable, the maximum potential Hg concentration, as defined in OAR 340-228-0602(25). In addition, under **40 CFR 75.64(c)**, the owner or operator must submit as part of each quarterly report, a certification statement, verifying the proper operation of the Hg emission controls for each missing data period in which the procedures in section (1) of this rule are applied.
(3) For units with add-on Hg controls, when the percent monitor data availability is less than 80.0 percent and is greater than or equal to 70.0 percent, and a missing data period occurs, consistent with **40 CFR 75.34(a)(3)**, for each missing data hour in which the Hg emission controls are documented to be operating properly, the owner or operator may report the maximum controlled Hg concentration recorded in the previous 720 quality-assured monitor operating hours. In addition, when the percent monitor data availability is less than
70.0 percent and a missing data period occurs, consistent with **40 CFR 75.34(a)(5)**, for each missing data hour in which the Hg emission controls are documented to be operating properly, the owner or operator may report the greater of the maximum expected Hg concentration (MEC) or 1.25 times the maximum controlled Hg concentration recorded in the previous 720 quality-assured monitor operating hours. The MEC must be determined in accordance with OAR 340-228-0602(24).

340-228-0633
Missing Data Procedures for Sorbent Trap Monitoring Systems
(1) If a primary sorbent trap monitoring system has not been certified by the applicable compliance date specified under OAR 340-228-0609(2), and if the quality-assured Hg concentration data from a certified backup Hg monitoring system, reference method, or approved alternative monitoring system are unavailable, the owner or operator must report the maximum potential Hg concentration, as defined in OAR 340-228-0602(25), until the primary system is certified.
(2) For a certified sorbent trap system, a missing data period will occur in the following circumstances, unless quality-assured Hg concentration data from a certified backup Hg CEMS, sorbent trap system, reference method, or approved alternative monitoring system are available:
(a) A gas sample is not extracted from the stack during unit operation (*e.g.* during a monitoring system malfunction or when the system undergoes maintenance); or
(b) The results of the Hg analysis for the paired sorbent traps are missing or invalid (as determined using the quality assurance procedures in OAR 340-228-0627). The missing data period begins with the hour in which the paired sorbent traps for which the Hg analysis is missing or invalid were put into service. The missing data period ends at the first hour in which valid Hg concentration data are obtained with

another pair of sorbent traps (i.e., the hour at which this pair of traps was placed in service), or with a certified backup Hg CEMS, reference method, or approved alternative monitoring system.
(3) Initial missing data procedures. Use the following missing data procedures until 720 hours of quality-assured Hg concentration data have been collected with the sorbent trap monitoring system(s), following initial certification. For each hour of the missing data period, the substitute data value for Hg concentration shall be the average Hg concentration from all valid sorbent trap analyses to date, including data from the initial certification test runs.
(4) Standard missing data procedures. Once 720 quality-assured hours of data have been obtained with the sorbent trap system(s), begin reporting the percent monitor data availability in accordance with **40 CFR 75.32** and switch from the initial missing data procedures in section (3) of this rule to the standard missing data procedures in OAR 340-228-0631.
(5) Notwithstanding the requirements of sections (3) and (4) of this rule, if the unit has add-on Hg emission controls, the owner or operator must report the maximum potential Hg concentration, as defined in 340-228-0602(25), for any hour(s) in the missing data period for which proper operation of the Hg emission controls is not documented according to OAR 340-228-0635(6).
(6) In cases where the owner or operator elects to use a primary Hg CEMS and a certified redundant (or non-redundant) backup sorbent trap monitoring system (or vice-versa), when both the primary and backup monitoring systems are out-of-service and quality-assured Hg concentration data from a temporary like-kind replacement analyzer, reference method, or approved alternative monitoring system are unavailable, the previous 720 quality-assured monitor operating hours reported in the quarterly report under OAR 340-228-0637(4) must be used for the required missing data lookback, irrespective of whether these data were recorded by the Hg CEMS, the sorbent trap system, a temporary like-kind replacement analyzer, a reference method, or an approved alternative monitoring system.

Recordkeeping and Reporting

340-228-0635
Recordkeeping
(1) General recordkeeping provisions. The owner or operator of any coal-fired electric generating unit must maintain for each coal-fired electric generating unit and each non-affected unit under OAR 340-228-0615(2)(b)(B) a file of all measurements, data, reports, and other required information at the source in a form suitable for inspection for at least 5 years from the date of each record. Except for the certification data required in **40 CFR 75.57(a)(4)** and the initial submission of the monitoring plan required in **40 CFR 75.57(a)(5)**, the data must be collected beginning with the earlier of the date of provisional certification or the compliance deadline in OAR 340-228-0609(2). The certification data required in **40 CFR 75.57(a)(4)** must be collected beginning with the date of the first certification test performed. The file must contain the following information:
(a) The information required in **40 CFR 75.57(a)(2), (a)(4), (a)(5), (a)(6), (b), (c)(2), (g)** (if applicable), **(h)**, and sections (4) or (5) of this rule (as applicable).
(b) For coal-fired electric generating units using Hg CEMS or sorbent trap monitoring systems, for each hour when the unit is operating, record the Hg mass emissions, calculated in accordance with OAR 340-228-0619.
(c) Heat input and Hg methodologies for the hour.
(d) Formulas from monitoring plan for total Hg mass emissions and heat input rate (if applicable); and

(e) Laboratory calibrations of the source sampling equipment. For sorbent trap monitoring systems, the laboratory analyses of all sorbent traps, and information documenting the results of all leak checks and other applicable quality control procedures.

(f) Unless otherwise provided, the owners and operators of the coal-fired electric generating unit must keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the Department.

(A) All emissions monitoring information, in accordance with OAR 340-228-0609 through 0637.

(B) Copies of all reports, compliance certifications, and other submissions.

(2) Certification, quality assurance, and quality control record provisions. The owner or operator of a coal-fired electric generating unit must maintain the information required in **40 CFR 75.59**, including the following:

(a) For each Hg monitor, the owner or operator must record the information in **40 CFR 75.59(a)(1)(i) through (xi)** for all daily and 7-day calibration error tests, all daily system integrity checks (Hg monitors, only), and all off-line calibration demonstrations, including any follow-up tests after corrective action.

(b) For each Hg concentration monitor, the owner or operator must record the information in **40 CFR 75.59(a)(3)(i) through (x)** for the initial and all subsequent linearity check(s) and 3-level system integrity checks (Hg monitors with converters, only), including any follow-up tests after corrective action.

(c) For each Hg concentration monitoring system or sorbent trap monitoring system, the owner or operator must record the information in **40 CFR 75.59(a)(5)(i) and (iii) through (vii)** for the initial and all subsequent relative accuracy test audits. The owner or operator must also record individual test run data from the relative accuracy test audit for the Hg concentration monitoring system or sorbent trap monitoring system, including the information in **40 CFR 75.59(a)(5)(ii)(A) through (M)**.

(d) For each Hg pollutant concentration monitor, the owner or operator must record the information in **40 CFR 75.59(a)(6)(i) through (xi)** for the cycle time test.

(e) For each relative accuracy test audit run using the Ontario Hydro Method to determine Hg concentration:

(A) Percent CO_2 and O_2 in the stack gas, dry basis;

(B) Moisture content of the stack gas (percent H_2O);

(C) Average stack temperature (^oF);

(D)) Dry gas volume metered (dscm);

(E) Percent isokinetic;

(F) Particle-bound Hg collected by the filter, blank, and probe rinse (µg);

(G) Oxidized Hg collected by the KCl impingers (µg);

(H) Elemental Hg collected in the HNO_3/H_2O_2 impinger and in the $KMnO_4/H_2SO_4$ impingers (µg);

(I) Total Hg, including particle-bound Hg (µg); and

(J) Total Hg, excluding particle-bound Hg (µg).

(f) For each RATA run using Method 29 to determine Hg concentration:

(A) Percent CO_2 and O_2 in the stack gas, dry basis;

(B) Moisture content of the stack gas (percent H_2O);

(C) Average stack gas temperature (°F);

(D) Dry gas volume metered (dscm);

(E) Percent isokinetic;

(F) Particulate Hg collected in the front half of the sampling train, corrected for the front-half blank value (µg); and
(G) Total vapor phase Hg collected in the back half of the sampling train, corrected for the back-half blank value (µg).
(g) When hardcopy relative accuracy test reports, certification reports, recertification reports, or semiannual or annual reports for Hg CEMS or sorbent trap monitoring systems are required or requested under **40 CFR 75.60(b)(6) or 75.63**, the reports must include, at a minimum, the elements in **40 CFR 75.59(a)(9)(i) through (ix) (**as applicable to the type(s) of test(s) performed). For sorbent trap monitoring systems, the report must include laboratory analyses of all sorbent traps, and information documenting the results of all leak checks and other applicable quality control procedures.
(h) Except as otherwise provided in subsection (6)(a) of this rule, for units with add-on Hg emission controls, the owner or operator must keep the records in **40 CFR 75.59(c)(1) through (2)** on-site in the quality assurance/quality control plan.
(3) Monitoring plan recordkeeping provisions.
(a) General provisions. The owner or operator of a coal-fired electric generating unit must prepare and maintain a monitoring plan for each affected unit or group of units monitored at a common stack and each non coal-fired electric generating unit under OAR 340-228-0615(2)(b)(B). The monitoring plan must contain sufficient information on the continuous monitoring systems and the use of data derived from these systems to demonstrate that all the unit's Hg emissions are monitored and reported.
(b) Updates. Whenever the owner or operator makes a replacement, modification, or change in a certified continuous monitoring system or alternative monitoring system under **40 CFR part 75 subpart E**, including a change in the automated data acquisition and handling system or in the flue gas handling system, that affects information reported in the monitoring plan (*e.g.*, a change to a serial number for a component of a monitoring system), then the owner or operator must update the monitoring plan.
(c) Contents of the monitoring plan. Each monitoring plan must contain the information in **40 CFR 75.53(g)(1)** in electronic format and the information in **40 CFR 75.53(g)(2)** in hardcopy format.
(4) Hg emission record provisions (CEMS). The owner or operator must record for each hour the information required by this section for each affected unit using Hg CEMS in combination with flow rate, and (in certain cases) moisture, and diluent gas monitors, to determine Hg mass emissions and (if applicable) unit heat input.
(a) For Hg concentration during unit operation, as measured and reported from each certified primary monitor, certified back-up monitor, or other approved method of emissions determination:
(A) Component-system identification code, as provided in **40 CFR 75.53**;
(B) Date and hour;
(C) Hourly Hg concentration (µg/m3, rounded to the nearest tenth). For a particular pair of sorbent traps, this will be the flow-proportional average concentration for the data collection period;
(D) The bias-adjusted hourly average Hg concentration (µg/m3, rounded to the nearest tenth) if a bias adjustment factor is required, as provided in OAR 340-228-0629(3);
(E) Method of determination for hourly Hg concentration using Codes 1–55 in Table 4 to this division; and
(F) The percent monitor data availability (to the nearest tenth of a percent), calculated pursuant to **40 CFR 75.32**.
(b) For flue gas moisture content during unit operation (if required), as measured and reported from each certified primary monitor, certified back-up monitor, or other approved method of emissions

determination (except where a default moisture value is used in accordance with **40 CFR 75.11(b)** or approved under **40 CFR 75.66**):
(A) Component-system identification code, as provided in **40 CFR 75.53**;
(B) Date and hour;
(C) Hourly average moisture content of flue gas (percent, rounded to the nearest tenth). If the continuous moisture monitoring system consists of wet- and dry-basis oxygen analyzers, also record both the wet- and dry-basis oxygen hourly averages (in percent O_2, rounded to the nearest tenth);
(D) Percent monitor data availability (recorded to the nearest tenth of a percent) for the moisture monitoring system, calculated pursuant to **40 CFR 75.32**; and
(E) Method of determination for hourly average moisture percentage, using Codes 1–55 in Table 4 to this division.
(c) For diluent gas (O_2 or CO_2) concentration during unit operation (if required), as measured and reported from each certified primary monitor, certified back-up monitor, or other approved method of emissions determination:
(A) Component-system identification code, as provided in **40 CFR 75.53**;
(B) Date and hour;
(C) Hourly average diluent gas (O_2 or CO_2) concentration (in percent, rounded to the nearest tenth);
(D) Method of determination code for diluent gas (O_2 or CO_2) concentration data using Codes 1–55, in Table 4 to this division; and
(E) The percent monitor data availability (to the nearest tenth of a percent) for the O_2 or CO_2 monitoring system (if a separate O_2 or CO_2 monitoring system is used for heat input determination), calculated pursuant to **40 CFR 75.32**.
(d) For stack gas volumetric flow rate during unit operation, as measured and reported from each certified primary monitor, certified back-up monitor, or other approved method of emissions determination, record the information required under paragraphs **40 CFR 75.57(c)(2)(i) through (c)(2)(vi)**.
(e) For Hg mass emissions during unit operation, as measured and reported from the certified primary monitoring system(s), certified redundant or nonredundant back-up monitoring system(s), or other approved method(s) of emissions determination:
(A) Date and hour;
(B) Hourly Hg mass emissions (pounds, rounded to three decimal places);
(C) Hourly Hg mass emissions (pounds, rounded to three decimal places), adjusted for bias if a bias adjustment factor is required, as provided in OAR 340-228-0629(3); and
(D) Identification code for emissions formula used to derive hourly Hg mass emissions from Hg concentration, flow rate and moisture data, as provided in **40 CFR 75.53**.
(5) Hg emission record provisions (sorbent trap systems). For the sorbent traps used in sorbent trap monitoring systems to quantify Hg concentration (including sorbent traps used for relative accuracy testing), the owner or operator must record for each hour the information required by this section.
(a) For Hg concentration during unit operation, as measured and reported from each certified primary monitor, certified back-up monitor, or other approved method of emissions determination:
(A) Component-system identification code, as provided in **40 CFR 75.53**;
(B) The ID number of the monitoring system in which each sorbent trap was used to collect Hg;
(C) The unique identification number of each sorbent trap;
(D) The beginning and ending dates and hours of the data collection period for each sorbent trap;

(E) Hourly Hg concentration (µg/dscm, rounded to the nearest tenth). For a particular pair of sorbent traps, this will be the flow-proportional average concentration for the data collection period;
(F) The bias-adjusted hourly average Hg concentration (µg/dscm, rounded to the nearest tenth) if a bias adjustment factor is required, as provided in OAR 340-228-0629(3);
(G) Method of determination for hourly average Hg concentration using Codes 1–55 in Table 4 to this division; and
(H) Percent monitor data availability (recorded to the nearest tenth of a percent), calculated pursuant to **40 CFR 75.32**.
(b) For flue gas moisture content during unit operation, as measured and reported from each certified primary monitor, certified back-up monitor, or other approved method of emissions determination (except where a default moisture value is used in accordance with **40 CFR 75.11(b)** or approved under **40 CFR 75.66**), record the information required under paragraphs (4)(b)(A) through (E) of this rule.
(c) For diluent gas (O_2 or CO_2) concentration during unit operation (if required for heat input determination), record the information required under paragraphs (4)(c)(A) through (E) of this rule.
(d) For stack gas volumetric flow rate during unit operation, as measured and reported from each certified primary monitor, certified back-up monitor, or other approved method of emissions determination, record the information required under **40 CFR 75.57(c)(2)(i) through (c)(2)(vi)**.
(e) For Hg mass emissions during unit operation, as measured and reported from the certified primary monitoring system(s), certified redundant or nonredundant back-up monitoring system(s), or other approved method(s) of emissions determination, record the information required under subsection (4)(e) of this rule.
(f) Record the average flow rate of stack gas through each sorbent trap (in appropriate units, *e.g.*, liters/min, cc/min, dscm/min).
(g) Record the dry gas meter reading (in dscm, rounded to the nearest hundredth), at the beginning and end of the collection period and at least once in each unit operating hour during the collection period.
(h) Calculate and record the ratio of the bias-adjusted stack gas flow rate to the sample flow rate, as described in OAR 340-228-0627(11)(b).
(i) Information documenting the results of the required leak checks;
(j) The analysis of the Hg collected by each sorbent trap; and
(k) Information documenting the results of the other applicable quality control procedures in OAR 340-228-0617, 0623, and 0627.
(6) General recordkeeping provisions for specific situations. Except as otherwise provided in **40 CFR 75.34(d)**, the owner or operator must record:
(a) Parametric data which demonstrate, for each hour of missing Hg emission data, the proper operation of the add-on emission controls, as described in the quality assurance/quality control program for the unit. The parametric data must be maintained on site and must be submitted, upon request, to the Department.
(b) A flag indicating, for each hour of missing Hg emission data, either that the add-on emission controls are operating properly, as evidenced by all parameters being within the ranges specified in the quality assurance/quality control program, or that the add-on emission controls are not operating properly.

340-228-0637
Reporting
(1) General reporting provisions.

(a) The owner or operator of an affected unit must comply with all reporting requirements in this section.
(b) The owner or operator of an affected unit must submit the following for each affected unit or group of units monitored at a common stack and each non-affected unit under OAR 340-228-0615(2)(b)(B):
(A) Initial certification and recertification applications in accordance with OAR 340-228-0621;
(B) Monitoring plans in accordance with section (2) of this rule; and
(C) Quarterly reports in accordance with section (4) of this rule.
(c) Quality assurance RATA reports. If requested by the Department, the owner or operator of an affected unit must submit the quality assurance RATA report for each affected unit or group of units monitored at a common stack and each non-affected unit under OAR 340-228-0615(2)(b)(B) by the later of 45 days after completing a quality assurance RATA or 15 days of receiving the request. The owner or operator must report the hardcopy information required by **40 CFR 75.59(a)(9)** and OAR 340-228-0635(2)(f) to the Department.
(d) Notifications. The owner or operator of an affected unit must submit written notice to the Department according to the provisions in **40 CFR 75.61** for each affected unit or group of units monitored at a common stack and each non-affected unit under OAR 340-228-0615(2)(b)(B).
(2) Monitoring plans. The owner or operator of a coal-fired electric generating unit must comply with the applicable requirements of subsections (2)(a) and (b) of this rule and **40 CFR 63.7521(b)**.
(a) The owner or operator of an affected unit must submit to the Department a complete, up-to-date monitoring plan file for each affected unit or group of units monitored at a common stack and each non-affected unit under OAR 340-228-0615(2)(b)(B), as follows: No later than 21 days prior to the commencement of initial certification testing; at the time of a certification or recertification application submission; and whenever an update of the monitoring plan is required, under **40 CFR 75.53**. In addition the information in **40 CFR 75.53(e)(1)**, the plan must include the type(s) of emission controls for Hg installed or to be installed, including specifications of whether such controls are pre-combustion, post-combustion, or integral to the combustion process; control equipment code, installation date, and optimization date; control equipment retirement date (if applicable); primary/secondary controls indicator; and an indicator for whether the controls are an original installation.
(b) The owner or operator of an affected unit must submit all of the information required under **40 CFR 75.53**, for each affected unit or group of units monitored at a common stack and each non-affected unit under OAR 340-228-0615(2)(b)(B), to the Department prior to initial certification. Thereafter, the owner or operator must submit information only if that portion of the monitoring plan is revised. The owner or operator must submit the required information as follows: no later than 21 days prior to the commencement of initial certification testing; with any certification or recertification application, if a monitoring plan change is associated with the recertification event; and within 30 days of any other event with which a monitoring plan change is associated, pursuant to **40 CFR 75.53(b)**.
(3) Certification applications. The owner or operator must submit an application to the Department within 45 days after completing all initial certification or recertification tests required under OAR 340-228-0621, including the information required under **40 CFR 75.63**.
(4) Quarterly reports. The owner or operator must submit quarterly reports, as follows:
(a) Submission. Quarterly reports must be submitted, beginning with the calendar quarter containing the compliance date in OAR 340-228-0609(2). The owner or operator must report the data and information in this subsection and the applicable compliance certification information in subsection (4)(b) of this rule to the Department quarterly. Each report must be submitted to the Department within 30 days

following the end of each calendar quarter. Each report must include the date of report generation and the following information for each affected unit or group of units monitored at a common stack.
(A) The facility information in **40 CFR 75.64(a)(3)**; and
(B) The information and hourly data required in OAR 340-228-0635(1) and (2), except for:
(i) Descriptions of adjustments, corrective action, and maintenance;
(ii) Other information such as field data sheets, lab analyses, quality control plan;
(iii) For units with add-on Hg emission controls, the parametric information in OAR 340-228-0635(6);
(iv) Information required by **40 CFR 75.57(h)** concerning the causes of any missing data periods and the actions taken to cure such causes;
(v) Hardcopy monitoring plan information required by **40 CFR 75.53**, OAR 340-228-0637(2), and hardcopy test data and results required by **40 CFR 75.59** and OAR 340-228-0635(2);
(vi) Records of flow polynomial equations and numerical values required by **40 CFR 75.59(a)(5)(vi)**;
(vii) Stratification test results required as part of RATAs;
(viii) Data and results of RATAs that are aborted or invalidated due to problems with the reference method or operational problems with the unit and data and results of linearity checks that are aborted or invalidated due to operational problems with the unit;
(ix) Supplementary RATA information required under **40 CFR 75.59(a)(7)** and OAR 340-228-0635(2)(e), except that:
(I) The applicable data elements under **40 CFR 75.59(a)(7)(ii)(A) through (T)** and under **40 CFR 75.59(a)(7)(iii)(A) through (M)** must be reported for flow RATAs at circular or rectangular stacks (or ducts) in which angular compensation for pitch and/or yaw angles is used (i.e. Method 2F and 2G in **appendixes A-1 and A-2 to 40 CFR part 60**), with or without wall effects adjustments;
(II) The applicable data elements under **40 CFR 75.59(a)(7)(ii)(A) through (T)** and under **40 CFR 75.59(a)(7)(iii)(A) through (M)** must be reported for any flow RATA run at a circular stack in which Method 2 in **appendices A–1 and A–2 to 40 CFR part 60** is used and a wall effects adjustment factor is determined by direct measurement;
(III) The data under **40 CFR 75.59(a)(7)(ii)(T)** must be reported for all flow RATAs at circular stacks in which Method 2 in **appendices A–1 and A–2 to 40 CFR part 60** is used and a default wall effects adjustment factor is applied; and
(IV) The data under **40 CFR 75.59(a)(7)(ix)(A) through (F)** must be reported for all flow RATAs at rectangular stacks or ducts in which Method 2 in **appendices A–1 and A–2 to 40 CFR part 60** is used and a wall effects adjustment factor is applied.
(x) For units using sorbent trap monitoring systems, the hourly dry gas meter readings taken between the initial and final meter readings for the data collection period;
(C) Pounds of Hg emitted during quarter and cumulative pounds of Hg emitted in the year-to-date (rounded to the nearest thousandth);
(D) Reporting data.
(i) The owner or operator of a coal-fired electric generating unit that does not meet the applicable compliance date set forth in OAR 340-228-0609(2) for any monitoring system under OAR 340-228-0609(1)(a) must, for each monitoring system, determine, record, and report maximum potential (or, as appropriate, minimum potential) values for heat input, inlet Hg, and any other parameters required to determine heat input and Hg inlet.
(ii) On and after January 1, 2018, the owner or operator of a coal-fired electric generating unit must submit monthly and 12-month rolling average mercury emissions per trillion Btu of energy input and/or mercury capture efficiency, for each month in the calendar quarter.

(E) Unit or stack operating hours for quarter, cumulative unit or stack operating hours for year-to-date; and
(F) Reporting period heat input (if applicable) and cumulative, year-to-date heat input.
(b) Compliance certification.
(A) The owner or operator must certify that the monitoring plan information in each quarterly report (*i.e.*, component and system identification codes, formulas, etc.) represent current operating conditions for the affected unit(s)
(B) The owner or operator must submit and sign a compliance certification in support of each quarterly emissions monitoring report based on reasonable inquiry of those persons with primary responsibility for ensuring that all of the unit's emissions are correctly and fully monitored. The certification must state that:
(i) The monitoring data submitted were recorded in accordance with the applicable requirements of OAR 340-228-0609 through 0637 and **40 CFR part 75**, including the quality assurance procedures and specifications; and
(ii) With regard to a unit with add-on Hg emission controls, that for all hours where data are substituted in accordance with OAR 340-228-0631(2), the add-on emission controls were operating within the range of parameters listed in the quality assurance plan for the unit, and that the substitute values do not systematically underestimate Hg emissions.
(5) Reporting data prior to initial certification. If, by the applicable compliance date under OAR 340-228-0609(2), the owner or operator of a coal-fired electric generating unit has not successfully completed all required certification tests for any monitoring system(s), he or she must determine, record and report hourly data prior to initial certification using one of the following procedures, for the monitoring system(s) that are uncertified:
(a) For Hg concentration and flow monitoring systems, report the maximum potential Hg concentration of Hg as defined in OAR 340-228-0602(25) and the maximum potential flow rate, as defined in section 2.1.4.1 of **appendix A to 40 CFR part 75**; or
(b) For any unit, report data from the reference methods in OAR 340-228-0602(33) or in **40 CFR 75.22**; or
(c) For any unit that is required to report heat input, report (as applicable) the maximum potential flow rate, as defined in section 2.1.4.1 of **appendix A** to **40 CFR part 75**, the maximum potential CO_2 concentration, as defined in section 2.1.3.1 of **appendix A** to **40 CFR part 75**, the minimum potential O_2 concentration, as defined in section 2.1.3.2 of **appendix A** to **40 CFR part 75**, and the minimum potential percent moisture, as defined in section 2.1.5 of **appendix A** to **40 CFR part 75**.

~~340-228-0608~~
~~Computation of Time~~
~~(1) Unless otherwise stated, any time period scheduled, under the Hg Budget Trading Program, to begin on the occurrence of an act or event must begin on the day the act or event occurs.~~
~~(2) Unless otherwise stated, any time period scheduled, under the Hg Budget Trading Program, to begin before the occurrence of an act or event shall be computed so that the period ends the day before the act or event occurs.~~
~~(3) Unless otherwise stated, if the final day of any time period, under the Hg Budget Trading Program, falls on a weekend or a State or Federal holiday, the time period will be extended to the next business day.~~

~~Stat. Auth.: ORS 468.020 & 468A.310~~
~~Stats. Implemented: ORS 468A.025~~
~~Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06~~

~~340-228-0610~~
~~Appeal Procedures~~
~~The appeal procedures for decisions of the Administrator under the Hg Budget Trading Program shall be the procedures set forth in 40 CFR part 78. The terms "40 CFR part 60 subpart HHHH," "40 CFR 60.4141(b)(2) or (c)(2)," "40 CFR 60.4154," "40 CFR 60.4156," "40 CFR 60.4161," "40 CFR 60.4175," "Hg allowances," "Hg Allowance Tracking System Account," "Hg designated representative," "Hg authorized account representative," and "40 CFR 60.4106" apply instead of the terms "subparts AA through II of part 96 of this chapter," "Sec. 96.141(b)(2) or (c)(2)," "Sec. 96.154," "Sec. 96.156," "Sec. 96.161," "Sec. 96.175," "CAIR NOX allowances," "CAIR NOX Allowance Tracking System account," "CAIR designated representative," "CAIR authorized account representative," and "Sec. 96.106.:~~
~~Stat. Auth.: ORS 468.020 & 468A.310~~
~~Stats. Implemented: ORS 468A.025~~
~~Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06~~

~~Hg Designated Representative for Hg Budget Sources~~

~~340-228-0612~~
~~Authorization and Responsibilities of Hg Designated Representative~~
~~(1) Except as provided under OAR 340-228-0614, each Hg Budget source, including all Hg Budget units at the source, must have one and only one Hg designated representative, with regard to all matters under the Hg Budget Trading Program concerning the source or any Hg Budget unit at the source.~~
~~(2) The Hg designated representative of the Hg Budget source must be selected by an agreement binding on the owners and operators of the source and all Hg Budget units at the source and must act in accordance with the certification statement in OAR 340-228-0618(1)(d)(D).~~
~~(3) Upon receipt by the Administrator of a complete certificate of representation under OAR 340-228-0618, the Hg designated representative of the source must represent and, by his or her representations, actions, inactions, or submissions, legally bind each owner and operator of the Hg Budget source represented and each Hg Budget unit at the source in all matters pertaining to the Hg Budget Trading Program, notwithstanding any agreement between the Hg designated representative and such owners and operators. The owners and operators must be bound by any decision or order issued to the Hg designated representative by the Department, the Administrator, or a court regarding the source or unit.~~
~~(4) No Hg Budget permit will be issued, no emissions data reports will be accepted, and no Hg Allowance Tracking System account will be established for a Hg Budget unit at a source, until the Administrator has received a complete certificate of representation under OAR 340-228-0618 for a Hg designated representative of the source and the Hg Budget units at the source.~~
~~(5)(a) Each submission under the Hg Budget Trading Program must be submitted, signed, and certified by the Hg designated representative for each Hg Budget source on behalf of which the submission is made. Each such submission must include the following certification statement by the Hg designated representative: "I am authorized to make this submission on behalf of the owners and operators of the source or units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its~~

~~attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.'"~~

~~(b) The Department and the Administrator will accept or act on a submission made on behalf of owner or operators of a Hg Budget source or a Hg Budget unit only if the submission has been made, signed, and certified in accordance with subsection (5)(a) of this rule.~~

~~Stat. Auth.: ORS 468.020 & 468A.310~~

~~Stats. Implemented: ORS 468A.025~~

~~Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06~~

~~340-228-0614~~

~~Alternate Hg Designated Representative~~

~~(1) A certificate of representation under OAR 340-228-0618 may designate one and only one alternate Hg designated representative, who may act on behalf of the Hg designated representative. The agreement by which the alternate Hg designated representative is selected must include a procedure for authorizing the alternate Hg designated representative to act in lieu of the Hg designated representative.~~

~~(2) Upon receipt by the Administrator of a complete certificate of representation under OAR 340-228-0618, any representation, action, inaction, or submission by the alternate Hg designated representative will be deemed to be a representation, action, inaction, or submission by the Hg designated representative.~~

~~(3) Except in this section and OAR 340-228-0602, 0612(1) and (4), 0616, 0618, 0638, and 0670, whenever the term "Hg designated representative" is used in this rule, the term will be construed to include the Hg designated representative or any alternate Hg designated representative.~~

~~Stat. Auth.: ORS 468.020 & 468A.310~~

~~Stats. Implemented: ORS 468A.025~~

~~Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06~~

~~340-228-0616~~

~~Changing Hg Designated Representative and Alternate Hg Designated Representative; Changes in Owners and Operators~~

~~(1) Changing Hg designated representative. The Hg designated representative may be changed at any time upon receipt by the Administrator of a superseding complete certificate of representation under OAR 340-228-0618. Notwithstanding any such change, all representations, actions, inactions, and submissions by the previous Hg designated representative before the time and date when the Administrator receives the superseding certificate of representation will be binding on the new Hg designated representative and the owners and operators of the Hg Budget source and the Hg Budget units at the source.~~

~~(2) Changing alternate Hg designated representative. The alternate Hg designated representative may be changed at any time upon receipt by the Administrator of a superseding complete certificate of representation under OAR 340-228-0618. Notwithstanding any such change, all representations, actions, inactions, and submissions by the previous alternate Hg designated representative before the time and date when the Administrator receives the superseding certificate of representation will be binding on the~~

~~new alternate Hg designated representative and the owners and operators of the Hg Budget source and the Hg Budget units at the source.~~
~~(3) Changes in owners and operators.~~
~~(a) In the event a new owner or operator of a Hg Budget source or a Hg Budget unit is not included in the list of owners and operators in the certificate of representation OAR 340-228-0618, such new owner or operator will be deemed to be subject to and bound by the certificate of representation, the representations, actions, inactions, and submissions of the Hg designated representative and any alternate Hg designated representative of the source or unit, and the decisions and orders of the Department, the Administrator, or a court, as if the new owner or operator were included in such list.~~
~~(b) Within 30 days following any change in the owners and operators of a Hg Budget source or a Hg Budget unit, including the addition of a new owner or operator, the Hg designated representative or any alternate Hg designated representative must submit a revision to the certificate of representation under OAR 340-228-0618 amending the list of owners and operators to include the change.~~
~~Stat. Auth.: ORS 468.020 & 468A.310~~
~~Stats. Implemented: ORS 468A.025~~
~~Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06~~

~~340-228-0618~~
~~Certificate of Representation~~
~~(1) A complete certificate of representation for a Hg designated representative or an alternate Hg designated representative must include the following elements in a format prescribed by the Administrator:~~
~~(a) Identification of the Hg Budget source, and each Hg Budget unit at the source, for which the certificate of representation is submitted.~~
~~(b) The name, address, e-mail address (if any), telephone number, and facsimile transmission number (if any) of the Hg designated representative and any alternate Hg designated representative.~~
~~(c) A list of the owners and operators of the Hg Budget source and of each Hg Budget unit at the source.~~
~~(d) The following certification statements by the Hg designated representative and any alternate Hg designated representative:~~
~~(A) "I certify that I was selected as the Hg designated representative or alternate Hg designated representative, as applicable, by an agreement binding on the owners and operators of the source and each Hg Budget unit at the source."~~
~~(B) "I certify that I have all the necessary authority to carry out my duties and responsibilities under the Hg Budget Trading Program on behalf of the owners and operators of the source and of each Hg Budget unit at the source and that each such owner and operator shall be fully bound by my representations, actions, inactions, or submissions."~~
~~(C) "I certify that the owners and operators of the source and of each Hg Budget unit at the source shall be bound by any order issued to me by the Administrator, the Department, or a court regarding the source or unit."~~
~~(D) "Where there are multiple holders of a legal or equitable title to, or a leasehold interest in, a Hg Budget unit, or where a customer purchases power from a Hg Budget unit under a life-of-the-unit, firm power contractual arrangement, I certify that: I have given a written notice of my selection as the `Hg designated representative' or `alternate Hg designated representative,' as applicable, and of the agreement by which I was selected to each owner and operator of the source and of each Hg Budget unit at the source; and Hg allowances and proceeds of transactions involving Hg allowances will be deemed~~

~~to be held or distributed in proportion to each holder's legal, equitable, leasehold, or contractual reservation or entitlement, except that, if such multiple holders have expressly provided for a different distribution of Hg allowances by contract, Hg allowances and proceeds of transactions involving Hg allowances will be deemed to be held or distributed in accordance with the contract."~~
~~(e) The signature of the Hg designated representative and any alternate Hg designated representative and the dates signed.~~
~~(2) Unless otherwise required by the Department or the Administrator, documents of agreement referred to in the certificate of representation must not be submitted to the Department or the Department. Neither the Department or the Administrator shall be under any obligation to review or evaluate the sufficiency of such documents, if submitted.~~
~~Stat. Auth.: ORS 468.020 & 468A.310~~
~~Stats. Implemented: ORS 468A.025~~
~~Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06~~

~~340-228-0620~~
~~Objections Concerning Hg Designated Representative~~
~~(1) Once a complete certificate of representation under OAR 340-228-0618 has been submitted and received, the Department and the Administrator will rely on the certificate of representation unless and until a superseding complete certificate of representation under OAR 340-228-0618 is received by the Administrator.~~
~~(2) Except as provided in OAR 340-228-0616(1) or (2), no objection or other communication submitted to the Department or the Administrator concerning the authorization, or any representation, action, inaction, or submission, of the Hg designated representative shall affect any representation, action, inaction, or submission of the Hg designated representative or the finality of any decision or order by the Department or the Administrator under the Hg Budget Trading Program.~~
~~(3) Neither the Department nor the Administrator will adjudicate any private legal dispute concerning the authorization or any representation, action, inaction, or submission of any Hg designated representative, including private legal disputes concerning the proceeds of Hg allowance transfers.~~
~~Stat. Auth.: ORS 468.020 & 468A.310~~
~~Stats. Implemented: ORS 468A.025~~
~~Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06~~

~~Permits~~

~~340-228-0622~~
~~General Hg Budget Trading Program Permit Requirements~~
~~(1) For each Hg Budget source required to have a title V operating permit, such permit must include a Hg Budget permit administered by the Department for the title V operating permit. The Hg Budget portion of the title V permit must be administered in accordance with the Department's title V operating permits regulations, except as provided otherwise by this section and OAR 340-228-0624 through 0630.~~
~~(2) Each Hg Budget permit must contain, with regard to the Hg Budget source and the Hg Budget units at the source covered by the Hg Budget permit, all applicable Hg Budget Trading Program requirements and must be a complete and separable portion of the title V operating permit.~~

~~Stat. Auth.: ORS 468.020 & 468A.310~~
~~Stats. Implemented: ORS 468A.025~~
~~Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06~~

~~340-228-0624~~
~~Submission of Hg Budget Permit Applications~~
~~(1) Duty to apply. The Hg designated representative of any Hg Budget source required to have a title V operating permit must submit to the Department a complete Hg Budget permit application under OAR 340-228-0626 for the source covering each Hg Budget unit at the source at least 18 months (or such lesser time provided by the Department) before the later of January 1, 2010 or the date on which the Hg Budget unit commences operation.~~
~~(2) Duty to Reapply. For a Hg Budget source required to have a title V operating permit, the Hg designated representative must submit a complete Hg Budget permit application under OAR 340-228-0626 for the source covering each Hg Budget unit at the source to renew the Hg Budget permit in accordance with the Department's title V operating permits regulations addressing permit renewal.~~
~~Stat. Auth.: ORS 468.020 & 468A.310~~
~~Stats. Implemented: ORS 468A.025~~
~~Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06~~

~~340-228-0626~~
~~Information Requirements for Hg Budget Permit Applications~~
~~A complete Hg Budget permit application must include the following elements concerning the Hg Budget source for which the application is submitted, in a format prescribed by the Department:~~
~~(1) Identification of the Hg Budget source;~~
~~(2) Identification of each Hg Budget unit at the Hg Budget source; and~~
~~(3) The standard requirements under OAR 340-228-0606.~~
~~Stat. Auth.: ORS 468.020 & 468A.310~~
~~Stats. Implemented: ORS 468A.025~~
~~Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06~~

~~340-228-0628~~
~~Hg Budget Permit Contents and Term~~
~~(1) Each Hg Budget permit will contain, in a format prescribed by the Department, all elements required for a complete Hg Budget permit application under OAR 340-228-0626.~~
~~(2) Each Hg Budget permit is deemed to incorporate automatically the definitions of terms under OAR 340-228-0602 and, upon recordation by the Administrator under OAR 340-228-0638 through 0656, every allocation, transfer, or deduction of a Hg allowance to or from the compliance account of the Hg Budget source covered by the permit.~~
~~(3) The term of the Hg Budget permit will be set by the Department, as necessary to facilitate coordination of the renewal of the Hg Budget permit with issuance, revision, or renewal of the Hg Budget source's title V operating permit.~~
~~Stat. Auth.: ORS 468.020 & 468A.310~~
~~Stats. Implemented: ORS 468A.025~~
~~Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06~~

~~340-228-0630~~

~~Hg Budget Permit Revisions~~

~~Except as provided in OAR 340-228-0628(2), the Department will revise the Hg Budget permit, as necessary, in accordance with the Department's title V operating permits regulations addressing permit revisions.~~

~~Stat. Auth.: ORS 468.020 & 468A.310~~
~~Stats. Implemented: ORS 468A.025~~
~~Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06~~

~~Hg Allowance Allocations~~

~~340-228-0632~~

~~State Trading Budget~~

~~Oregon's trading budget for annual allocations of Hg allowances for the control periods in 2010 through 2017 is 2,432 ounces per year and in 2018 and thereafter is 960 ounces per year.~~

~~Stat. Auth.: ORS 468.020 & 468A.310~~
~~Stats. Implemented: ORS 468A.025~~
~~Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06~~

~~340-228-0634~~

~~Timing Requirements for Hg Allowance Allocations~~

~~(1) By November 17, 2006, the Department will submit to the Administrator the Hg allowance allocations, in a format prescribed by the Administrator and in accordance with OAR 340-228-0636(1) and (2), for the control periods in 2010, 2011, and 2012.~~

~~(2)(a) By October 31, 2009 and October 31 of each year thereafter through 2013, the Department will submit to the Administrator the Hg allowance allocations, in a format prescribed by the Administrator and in accordance with OAR 340-228-0636(1) and (2), for the control period in the fourth year after the year of the applicable deadline for submission under this section.~~

~~(b) If the Department fails to submit to the Administrator the Hg allowance allocations in accordance with subsection (2)(a) of this rule for the control periods in 2010 through 2017, the Administrator will assume that the allocations of Hg allowances for the applicable control period are the same as for the control period that immediately precedes the applicable control period.~~

~~(3)(a) By October 31, 2010 and October 31 of each year thereafter through 2017, the Department will submit to the Administrator the Hg allowance allocations, in a format prescribed by the Administrator and in accordance with OAR 340-228-0636(1), (3), and (4), for the control period in the year of the applicable deadline for submission under this section.~~

~~(b) If the Department fails to submit to the Administrator the Hg allowance allocations in accordance with subsection (3)(a) of this rule, the Administrator will assume that the allocations of Hg allowances for the applicable control period are the same as for the control period that immediately precedes the applicable control period, except that, any Hg Budget unit that would otherwise be allocated Hg allowances under OAR 340-228-0636(1) and (2), as well as under OAR 340-228-0636(1), (3), and (4), for the applicable control period will be assumed to be allocated no Hg allowances under OAR 340-228-0636(1), (3), and (4) for the applicable control period.~~

~~Stat. Auth.: ORS 468.020 & 468A.310~~
~~Stats. Implemented: ORS 468A.025~~
~~Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06~~

~~340-228-0636~~
~~Hg Allowance Allocations~~
~~(1)(a) The baseline heat input (in MMBtu) used with respect to Hg allowance allocations under section (2) of this rule for each Hg Budget units will be:~~
~~(A) For units commencing operation before January 1, 2001, the average of the three highest amounts of the unit's adjusted control period heat input for 2000 through 2004, with the adjusted control period heat input for each year calculated as the sum of the following:~~
~~(i) Any portion of the unit's control period heat input for the year that results from the unit's combustion of lignite, multiplied by 3.0;~~
~~(ii) Any portion of the unit's control period heat input for the year that results from the unit's combustion of subbituminous coal, multiplied by 1.25; and~~
~~(iii) Any portion of the unit's control period heat input for the year that is not covered by subparagraph (1)(a)(A)(i) or (ii) of this rule, multiplied by 1.0.~~
~~(B) For units commencing operation on or after January 1, 2001 and operating each calendar year during a period of 5 or more consecutive calendar years, the average of the 3 highest amounts of the unit's total converted control period heat input over the first such 5 years.~~
~~(b)(A) A unit's control period heat input for a calendar year under paragraph (1)(a)(A) of this rule, and a unit's total ounces of Hg emissions during a calendar year under subsection (3)(c) of this rule, will be determined in accordance with 40 CFR part 75, to the extent the unit was otherwise subject to the requirements of 40 CFR part 75 for the year, or will be based on the best available data reported to the Department for the unit, to the extent the unit was not otherwise subject to the requirements of 40 CFR part 75. The unit's types and amounts of fuel combusted, under paragraph (1)(a)(A) of this rule, will be based on the best available data reported to the Department for the unit.~~
~~(B) A unit's converted control period heat input for a calendar year specified under paragraph (1)(a)(B) of this rule equals:~~
~~(i) Except as provided in paragraph (1)(b)(B)(ii) or (iii) of this rule, the control period gross electrical output of the generator or generators served by the unit multiplied by 7,900 Btu/kWh and divided by 1,000,000 Btu/MMBtu, provided that if a generator is served by 2 or more units, then the gross electrical output of the generator will be attributed to each unit in proportion to the unit's share of the total control period heat input of such units for the year;~~
~~(ii) For a unit that is a boiler and has equipment used to produce electricity and useful thermal energy for industrial, commercial, heating, or cooling purposes through the sequential use of energy, the total heat energy (in Btu) of the steam produced by the boiler during the control period, divided by 0.8 and by 1,000,000 Btu/MMBtu; or~~
~~(iii) For a unit that is a combustion turbine and has equipment used to produce electricity and useful thermal energy for industrial, commercial, heating, or cooling purposes through the sequential use of energy, the control period gross electrical output of the enclosed device comprising the compressor, combustor, and turbine multiplied by 3,413 Btu/kWh, plus the total heat energy (in Btu) of the steam produced by any associated heat recovery steam generator during the control period divided by 0.8, and with the sum divided by 1,000,000 Btu/MMBtu.~~
~~(2) Existing unit Hg allocations.~~

~~(a) For each control period in 2010 through 2017, the Department shall allocate to the Hg Budget units in the State that have a baseline heat input (as determined under section (1) of this rule) a total amount of Hg allowances equal to 90 percent of the amount of ounces of Hg emissions in the State trading budget under OAR 340-228-0632.~~

~~(b) For each control period in 2018 and thereafter, the Department shall not allocate any Hg allowances to Hg Budget units in the State.~~

~~(c) The Department will allocate Hg allowances to each Hg Budget unit under subsection (2)(a) of this rule in an amount determined by multiplying the total amount of Hg allowances allocated under subsection (2)(a) of this rule by the ratio of the baseline heat input of such Hg Budget unit to the total amount of baseline heat input of all such Hg Budget units in the State and rounding to the nearest whole allowance as appropriate.~~

~~(d) For each control period in 2013 through 2017, the Department will not allocate more than 1280 ounces to any single Hg Budget unit.~~

~~(f) If any unallocated Hg allowances remain, an amount of Hg allowances equal to the total amount of such remaining unallocated Hg allowances will be permanently retired.~~

~~(3) New unit set-aside. For each control period in 2010 and thereafter, the Department will allocate Hg allowances to Hg Budget units in the State that commenced operation on or after January 1, 2001 and do not yet have a baseline heat input (as determined under section (1) of this rule), in accordance with the following procedures:~~

~~(a) The Department will establish a separate new unit set-aside for each control period according to paragraph (3)(a)(A) and (B) of this rule.~~

~~(A) For each control period in 2010 through 2017, the new unit set-aside will be allocated Hg allowances equal to 10 percent of the amount of ounces of Hg emissions in the State trading budget under OAR 340-228-0632.~~

~~(B) For each control period in 2018 and thereafter, the new unit set-aside will not be allocated any Hg allowances.~~

~~(b) The Hg designated representative of such a Hg Budget unit may submit to the Department a request, in a format specified by the Department, to be allocated Hg allowances, starting with the later of the control period in 2010 or the first control period after the control period in which the Hg Budget unit commences commercial operation and until the first control period for which the unit is allocated Hg allowances under section (2) of this rule. The Hg allowance allocation request must be submitted on or before July 1 of the first control period for which the Hg allowances are requested and after the date on which the Hg Budget unit commences commercial operation.~~

~~(c) In a Hg allowance allocation request under subsection (3)(b) of this rule, the Hg designated representative may request for a control period Hg allowances in an amount not exceeding the Hg Budget unit's total ounces of Hg emissions during the control period immediately before such control period.~~

~~(d) The Department will review each Hg allowance allocation request under subsection (3)(b) of this rule and will allocate Hg allowances for each control period pursuant to such request as follows:~~

~~(A) The Department will accept an allowance allocation request only if the request meets, or is adjusted by the Department as necessary to meet, the requirements of subsections (3)(b) and (c) of this rule.~~

~~(B) On or after July 1 of the control period, the Department will determine the sum of the Hg allowances requested (as adjusted under paragraph (3)(d)(A) of this rule) in all allowance allocation requests accepted under paragraph (3)(d)(A) of this rule for the control period.~~

~~(C) If the amount of Hg allowances in the new unit set-aside for the control period is greater than or equal to the sum under paragraph (3)(d)(B) of this rule, then the Department will allocate the amount of Hg allowances requested (as adjusted under paragraph (3)(d)(A) of this rule) to each Hg Budget unit covered by an allowance allocation request accepted under paragraph (3)(d)(A) of this rule.~~
~~(D) If the amount of Hg allowances in the new unit set-aside for the control period is less than the sum under paragraph (3)(d)(B) of this rule, then the Department will allocate to each Hg Budget unit covered by an allowance allocation request accepted under paragraph (3)(d)(A) of this rule the amount of the Hg allowances requested (as adjusted under paragraph (3)(d)(A) of this rule), multiplied by the amount of Hg allowances in the new unit set-aside for the control period, divided by the sum determined under paragraph (3)(d)(B) of this rule, rounded to the nearest whole allowance as appropriate.~~
~~(E) The Department will notify each Hg designated representative that submitted an allowance allocation request of the amount of Hg allowances (if any) allocated for the control period to the Hg Budget unit covered by the request.~~
~~(F) For each control period in 2018 and thereafter, the Department will not allocate to any single Hg Budget unit.~~
~~(e) If, after completion of the procedures under subsection (3)(d) of this rule for a control period, any unallocated Hg allowances remain in the new unit set-aside for the control period, an amount of Hg allowances equal to the total amount of such remaining unallocated Hg allowances will be permanently retired.~~
~~Stat. Auth.: ORS 468.020 & 468A.310~~
~~Stats. Implemented: ORS 468A.025~~
~~Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06~~

~~Hg Allowance Tracking System~~

~~340-228-0638~~
~~Establishment of Accounts~~
~~(1) Compliance accounts. Upon receipt of a complete certificate of representation under OAR 340-228-0618, the Administrator will establish a compliance account for the Hg Budget source for which the certificate of representation was submitted unless the source already has a compliance account.~~
~~(2) General accounts.~~
~~(a) Application for general account.~~
~~(A) Any person may apply to open a general account for the purpose of holding and transferring Hg allowances. An application for a general account may designate one and only one Hg authorized account representative and one and only one alternate Hg authorized account representative who may act on behalf of the Hg authorized account representative. The agreement by which the alternate Hg authorized account representative is selected must include a procedure for authorizing the alternate Hg authorized account representative to act in lieu of the Hg authorized account representative.~~
~~(B) A complete application for a general account must be submitted to the Administrator and must include the following elements in a format prescribed by the Administrator:~~
~~(i) Name, mailing address, e-mail address (if any), telephone number, and facsimile transmission number (if any) of the Hg authorized account representative and any alternate Hg authorized account representative;~~
~~(ii) Organization name and type of organization, if applicable;~~

~~(iii) A list of all persons subject to a binding agreement for the Hg authorized account representative and any alternate Hg authorized account representative to represent their ownership interest with respect to the Hg allowances held in the general account;~~
~~(iv) The following certification statement by the Hg authorized account representative and any alternate Hg authorized account representative: "I certify that I was selected as the Hg authorized account representative or the alternate Hg authorized account representative, as applicable, by an agreement that is binding on all persons who have an ownership interest with respect to Hg allowances held in the general account. I certify that I have all the necessary authority to carry out my duties and responsibilities under the Hg Budget Trading Program on behalf of such persons and that each such person must be fully bound by my representations, actions, inactions, or submissions and by any order or decision issued to me by the Administrator or a court regarding the general account."~~
~~(v) The signature of the Hg authorized account representative and any alternate Hg authorized account representative and the dates signed.~~
~~(C) Unless otherwise required by the Department or the Administrator, documents of agreement referred to in the application for a general account shall not be submitted to the Department or the Administrator. Neither the Department nor the Administrator shall be under any obligation to review or evaluate the sufficiency of such documents, if submitted.~~
~~(b) Authorization of Hg authorized account representative.~~
~~(A) Upon receipt by the Administrator of a complete application for a general account under section (1) of this rule:~~
~~(i) The Administrator will establish a general account for the person or persons for whom the application is submitted.~~
~~(ii) The Hg authorized account representative and any alternate Hg authorized account representative for the general account must represent and, by his or her representations, actions, inactions, or submissions, legally bind each person who has an ownership interest with respect to Hg allowances held in the general account in all matters pertaining to the Hg Budget Trading Program, notwithstanding any agreement between the Hg authorized account representative or any alternate Hg authorized account representative and such person. Any such person must be bound by any order or decision issued to the Hg authorized account representative or any alternate Hg authorized account representative by the Administrator or a court regarding the general account.~~
~~(iii) Any representation, action, inaction, or submission by any alternate Hg authorized account representative shall be deemed to be a representation, action, inaction, or submission by the Hg authorized account representative.~~
~~(B) Each submission concerning the general account must be submitted, signed, and certified by the Hg authorized account representative or any alternate Hg authorized account representative for the persons having an ownership interest with respect to Hg allowances held in the general account. Each such submission must include the following certification statement by the Hg authorized account representative or any alternate Hg authorized account representative: "I am authorized to make this submission on behalf of the persons having an ownership interest with respect to the Hg allowances held in the general account. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment."~~

~~(C) The Administrator will accept or act on a submission concerning the general account only if the submission has been made, signed, and certified in accordance with paragraph (2)(b)(B) of this rule.~~

~~(c) Changing Hg authorized account representative and alternate Hg authorized account representative; changes in persons with ownership interest.~~

~~(A) The Hg authorized account representative for a general account may be changed at any time upon receipt by the Administrator of a superseding complete application for a general account under section (1) of this rule. Notwithstanding any such change, all representations, actions, inactions, and submissions by the previous Hg authorized account representative before the time and date when the Administrator receives the superseding application for a general account shall be binding on the new Hg authorized account representative and the persons with an ownership interest with respect to the Hg allowances in the general account.~~

~~(B) The alternate Hg authorized account representative for a general account may be changed at any time upon receipt by the Administrator of a superseding complete application for a general account under section (1) of this rule. Notwithstanding any such change, all representations, actions, inactions, and submissions by the previous alternate Hg authorized account representative before the time and date when the Administrator receives the superseding application for a general account is binding on the new alternate Hg authorized account representative and the persons with an ownership interest with respect to the Hg allowances in the general account.~~

~~(C)(i) In the event a new person having an ownership interest with respect to Hg allowances in the general account is not included in the list of such persons in the application for a general account, such new person is deemed to be subject to and bound by the application for a general account, the representation, actions, inactions, and submissions of the Hg authorized account representative and any alternate Hg authorized account representative of the account, and the decisions and orders of the Administrator or a court, as if the new person were included in such list.~~

~~(ii) Within 30 days following any change in the persons having an ownership interest with respect to Hg allowances in the general account, including the addition of persons, the Hg authorized account representative or any alternate Hg authorized account representative must submit a revision to the application for a general account amending the list of persons having an ownership interest with respect to the Hg allowances in the general account to include the change.~~

~~(d) Objections concerning Hg authorized account representative.~~

~~(A) Once a complete application for a general account under subsection (2)(a) of this rule has been submitted and received, the Administrator will rely on the application unless and until a superseding complete application for a general account under subsection (2)(a) of this rule is received by the Administrator.~~

~~(B) Except as provided in paragraph (2)(c)(A) or (B) of this rule, no objection or other communication submitted to the Administrator concerning the authorization, or any representation, action, inaction, or submission of the Hg authorized account representative or any alternative Hg authorized account representative for a general account will affect any representation, action, inaction, or submission of the Hg authorized account representative or any alternative Hg authorized account representative or the finality of any decision or order by the Administrator under the Hg Budget Trading Program.~~

~~(C) The Administrator will not adjudicate any private legal dispute concerning the authorization or any representation, action, inaction, or submission of the Hg authorized account representative or any alternative Hg authorized account representative for a general account, including private legal disputes concerning the proceeds of Hg allowance transfers.~~

~~(3) Account identification. The Administrator will assign a unique identifying number to each account established under section (1) or (2) of this rule.~~
~~Stat. Auth.: ORS 468.020 & 468A.310~~
~~Stats. Implemented: ORS 468A.025~~
~~Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06~~

~~340-228-0640~~
~~Responsibilities of Hg Authorized Account Representative~~
~~Following the establishment of a Hg Allowance Tracking System account, all submissions to the Administrator pertaining to the account, including, but not limited to, submissions concerning the deduction or transfer of Hg allowances in the account, must be made only by the Hg authorized account representative for the account.~~
~~Stat. Auth.: ORS 468.020 & 468A.310~~
~~Stats. Implemented: ORS 468A.025~~
~~Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06~~

~~340-228-0642~~
~~Recordation of Hg Allowance Allocations~~
~~(1) By December 1, 2006, the Administrator will record in the Hg Budget source's compliance account the Hg allowances allocated for the Hg Budget units at a source, as submitted by the Department in accordance with OAR 340-228-0634(1), for the control periods in 2010, 2011, and 2012.~~
~~(2) By December 1, 2009, the Administrator will record in the Hg Budget source's compliance account the Hg allowances allocated for the Hg Budget units at the source, as submitted by the Department or as determined by the Administrator in accordance with OAR 340-228-0634(2), for the control period in 2013.~~
~~(3) In 2010 and each year thereafter through 2013, after the Administrator has made all deductions (if any) from a Hg Budget source's compliance account under OAR 340-228-0644, the Administrator will record in the Hg Budget source's compliance account the Hg allowances allocated for the Hg Budget units at the source, as submitted by the Department or determined by the Administrator in accordance with OAR 340-228-0634(2), for the control period in the fourth year after the year of the control period for which such deductions were or could have been made.~~
~~(4) By December 1, 2010 and December 1 of each year thereafter through 2017, the Administrator will record in the Hg Budget source's compliance account the Hg allowances allocated for the Hg Budget units at the source, as submitted by the Department or determined by the Administrator in accordance with OAR 340-228-0634(3), for the control period in the year of the applicable deadline for recordation under this section.~~
~~(5) Serial numbers for allocated Hg allowances. When recording the allocation of Hg allowances for a Hg Budget unit in a compliance account, the Administrator will assign each Hg allowance a unique identification number that will include digits identifying the year of the control period for which the Hg allowance is allocated.~~
~~Stat. Auth.: ORS 468.020 & 468A.310~~
~~Stats. Implemented: ORS 468A.025~~
~~Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06~~

~~340-228-0644~~

~~**Compliance with Hg Budget Emissions Limitation**~~

~~(1) Allowance transfer deadline. The Hg allowances are available to be deducted for compliance with a source's Hg Budget emissions limitation for a control period in a given calendar year only if the Hg allowances:~~

~~(a) Were allocated for the control period in the year or a prior year;~~

~~(b) Are held in the compliance account as of the allowance transfer deadline for the control period or are transferred into the compliance account by a Hg allowance transfer correctly submitted for recordation under OAR 340-228-0652 through 0656 by the allowance transfer deadline for the control period; and~~

~~(c) Are not necessary for deductions for excess emissions for a prior control period under OAR 340-228-0644(4)(a).~~

~~(2) Deductions for compliance. Following the recordation, in accordance with OAR 340-228-0652 through 0656, of Hg allowance transfers submitted for recordation in a source's compliance account by the allowance transfer deadline for a control period, the Administrator will deduct from the compliance account Hg allowances available under section (1) of this rule in order to determine whether the source meets the Hg Budget emissions limitation for the control period, as follows:~~

~~(a) Until the amount of Hg allowances deducted equals the number of ounces of total Hg emissions, determined in accordance with OAR 340-228-0658 through 0662 and 340-228-0664 through 0670, from all Hg Budget units at the source for the control period; or~~

~~(b) If there are insufficient Hg allowances to complete the deductions in subsection (2)(a) of this rule, until no more Hg allowances available under section (1) of this rule remain in the compliance account.~~

~~(3) Identification of Hg allowances by serial number.~~

~~(a) The Hg authorized account representative for a source's compliance account may request that specific Hg allowances, identified by serial number, in the compliance account be deducted for emissions or excess emissions for a control period in accordance with section (2) or (4) of this rule. Such request must be submitted to the Administrator by the allowance transfer deadline for the control period and include, in a format prescribed by the Administrator, the identification of the Hg Budget source and the appropriate serial numbers.~~

~~(b) First-in, first-out. The Administrator will deduct Hg allowances under section (2) or (4) of this rule from the source's compliance account, in the absence of an identification or in the case of a partial identification of Hg allowances by serial number under subsection (3)(a) of this section, on a first-in, first-out (FIFO) accounting basis in the following order:~~

~~(A) Any Hg allowances that were allocated to the units at the source, in the order of recordation; and then~~

~~(B) Any Hg allowances that were allocated to any unit and transferred and recorded in the compliance account pursuant to OAR 340-228-0652 through 0656, in the order of recordation.~~

~~(4) Deductions for excess emissions.~~

~~(a) After making the deductions for compliance under section (2) of this rule for a control period in a calendar year in which the Hg Budget source has excess emissions, the Administrator will deduct from the source's compliance account an amount of Hg allowances, allocated for the control period in the immediately following calendar year, equal to 3 times the number of ounces of the source's excess emissions.~~

~~(b) Any allowance deduction required under subsection (4)(1) will not affect the liability of the owners and operators of the Hg Budget source or the Hg Budget units at the source for any fine, penalty, or assessment, or their obligation to comply with any other remedy, for the same violation, as ordered under the Clean Air Act or applicable State law.~~

~~(5) Recordation of deductions. The Administrator will record in the appropriate compliance account all deductions from such an account under section (2) or (4) of this rule.~~
~~(6) Administrator's action on submissions.~~
~~(a) The Administrator may review and conduct independent audits concerning any submission under the Hg Budget Trading Program and make appropriate adjustments of the information in the submissions.~~
~~(b) The Administrator may deduct Hg allowances from or transfer Hg allowances to a source's compliance account based on the information in the submissions, as adjusted under subsection (6)(a) of this rule.~~
~~Stat. Auth.: ORS 468.020 & 468A.310~~
~~Stats. Implemented: ORS 468A.025~~
~~Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06~~

~~340-228-0646~~
~~Banking~~
~~(1) Hg allowances may be banked for future use or transfer in a compliance account or a general account in accordance with section (2) of this rule.~~
~~(2) Any Hg allowance that is held in a compliance account or a general account will remain in such account unless and until the Hg allowance is deducted or transferred under OAR 340-228-0644, 0648, 0652 through 0656.~~
~~Stat. Auth.: ORS 468.020 & 468A.310~~
~~Stats. Implemented: ORS 468A.025~~
~~Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06~~

~~340-228-0648~~
~~Account Error~~
~~The Administrator may, at his or her sole discretion and on his or her own motion, correct any error in any Hg Allowance Tracking System account. Within 10 business days of making such correction, the Administrator will notify the Hg authorized account representative for the account.~~
~~Stat. Auth.: ORS 468.020 & 468A.310~~
~~Stats. Implemented: ORS 468A.025~~
~~Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06~~

~~340-228-0650~~
~~Closing of General Accounts~~
~~(1) The Hg authorized account representative of a general account may submit to the Administrator a request to close the account, which must include a correctly submitted allowance transfer under OAR 340-228-0652 through 0656 for any Hg allowances in the account to one or more other Hg Allowance Tracking System accounts.~~
~~(2) If a general account has no allowance transfers in or out of the account for a 12-month period or longer and does not contain any Hg allowances, the Administrator may notify the Hg authorized account representative for the account that the account will be closed following 20 business days after the notice is sent. The account will be closed after the 20-day period unless, before the end of the 20-day period, the Administrator receives a correctly submitted transfer of Hg allowances into the account under OAR 340-228-0652 through 0656 or a statement submitted by the Hg authorized account representative~~

~~demonstrating to the satisfaction of the Administrator good cause as to why the account should not be closed.~~
~~Stat. Auth.: ORS 468.020 & 468A.310~~
~~Stats. Implemented: ORS 468A.025~~
~~Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06~~

~~Hg Allowance Transfers~~

~~340-228-0652~~
~~Submission of Hg Allowance Transfers~~
~~A Hg authorized account representative seeking recordation of a Hg allowance transfer must submit the transfer to the Administrator. To be considered correctly submitted, the Hg allowance transfer must include the following elements, in a format specified by the Administrator:~~
~~(1) The account numbers for both the transferor and transferee accounts;~~
~~(2) The serial number of each Hg allowance that is in the transferor account and is to be transferred; and~~
~~(3) The name and signature of the Hg authorized account representative of the transferor account and the date signed.~~
~~Stat. Auth.: ORS 468.020 & 468A.310~~
~~Stats. Implemented: ORS 468A.025~~
~~Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06~~

~~340-228-0654~~
~~EPA Recordation~~
~~(1) Within 5 business days (except as provided in section (2) of this rule) of receiving a Hg allowance transfer, the Administrator will record a Hg allowance transfer by moving each Hg allowance from the transferor account to the transferee account as specified by the request, provided that:~~
~~(a) The transfer is correctly submitted under OAR 340-228-0652; and~~
~~(b) The transferor account includes each Hg allowance identified by serial number in the transfer.~~
~~(2) A Hg allowance transfer that is submitted for recordation after the allowance transfer deadline for a control period and that includes any Hg allowances allocated for any control period before such allowance transfer deadline will not be recorded until after the Administrator completes the deductions under OAR 340-228-0644 for the control period immediately before such allowance transfer deadline.~~
~~(3) Where a Hg allowance transfer submitted for recordation fails to meet the requirements of section (1) of this rule, the Administrator will not record such transfer.~~
~~Stat. Auth.: ORS 468.020 & 468A.310~~
~~Stats. Implemented: ORS 468A.025~~
~~Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06~~

~~340-228-0656~~
~~Notification~~
~~(1) Notification of recordation. Within 5 business days of recordation of a Hg allowance transfer under OAR 340-228-0654, the Administrator will notify the Hg authorized account representatives of both the transferor and transferee accounts.~~

~~(2) Notification of non-recordation. Within 10 business days of receipt of a Hg allowance transfer that fails to meet the requirements of OAR 340-228-0654(1), the Administrator will notify the Hg authorized account representatives of both accounts subject to the transfer of:~~
~~(a) A decision not to record the transfer, and~~
~~(b) The reasons for such nonrecordation.~~
~~(3) Nothing in this section shall preclude the submission of a Hg allowance transfer for recordation following notification of nonrecordation.~~
~~Stat. Auth.: ORS 468.020 & 468A.310~~
~~Stats. Implemented: ORS 468A.025~~
~~Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06~~

~~Monitoring and Reporting~~

~~340-228-0658~~
~~General Requirements~~
~~The owners and operators, and to the extent applicable, the Hg designated representative, of a Hg Budget unit, must comply with the monitoring, recordkeeping, and reporting requirements as provided in this rule, OAR 340-228-0660 through 0670, and **40 CFR part 75 subpart I**. For purposes of complying with such requirements, the definitions in OAR 340-228-0602 and in 40 CFR 72.2 shall apply, and the terms "affected unit," "designated representative," and "continuous emission monitoring system" (or "CEMS") in 40 CFR part 75 shall be deemed to refer to the terms "Hg Budget unit," "Hg designated representative," and "continuous emission monitoring system" (or "CEMS") respectively, as defined in OAR 340-228-0602. The owner or operator of a unit that is not a Hg Budget unit but that is monitored under **40 CFR 75.82(b)(2)(i)** must comply with the same monitoring, recordkeeping, and reporting requirements as a Hg Budget unit.~~
~~(1) Requirements for installation, certification, and data accounting. The owner or operator of each Hg Budget unit must:~~
~~(a) Install all applicable monitoring systems required under this rule and OAR 340-228-0660 through 0670 for monitoring Hg mass emissions and individual unit heat input (including all systems required to monitor Hg concentration, stack gas moisture content, stack gas flow rate, and CO2 or O2 concentration, as applicable, in accordance with **40 CFR 75.81** and **75.82**);~~
~~(b) Successfully complete all certification tests required under OAR 340-228-0660 and meet all other requirements of this rule, OAR 340-228-0660 through 0670, and **40 CFR part 75 subpart I** applicable to the monitoring systems under subsection (1)(a) of this rule; and~~
~~(c) Record, report, and quality-assure the data from the monitoring systems under subsection (1)(a) of this rule.~~
~~(2) Compliance deadlines. The owner or operator must meet the monitoring system certification and other requirements of subsections (1)(a) and (b) of this rule on or before the following dates. The owner or operator must record, report, and quality-assure the data from the monitoring systems under subsection (1)(a) of this rule on and after the following dates.~~
~~(a) For the owner or operator of a Hg Budget unit that commences commercial operation before July 1, 2008, by January 1, 2009.~~
~~(b) For the owner or operator of a Hg Budget unit that commences commercial operation on or after July 1, 2008, by the later of the following dates:~~
~~(A) January 1, 2009; or~~

~~(B) 90 unit operating days or 180 calendar days, whichever occurs first, after the date on which the unit commences commercial operation.~~
~~(c) For the owner or operator of a Hg Budget unit for which construction of a new stack or flue or installation of add-on Hg emission controls, a flue gas desulfurization system, a selective catalytic reduction system, or a compact hybrid particulate collector system is completed after the applicable deadline under subsection (2)(a) or (b) of this rule, by 90 unit operating days or 180 calendar days, whichever occurs first, after the date on which emissions first exit to the atmosphere through the new stack or flue, add-on Hg emissions controls, flue gas desulfurization system, selective catalytic reduction system, or compact hybrid particulate collector system.~~
~~(3) Reporting data.~~
~~(a) Except as provided in subsection (3)(b) of this rule, the owner or operator of a Hg Budget unit that does not meet the applicable compliance date set forth in section (2) of this rule for any monitoring system under subsection (1)(a) of this rule must, for each monitoring system, determine, record, and report maximum potential (or, as appropriate, minimum potential) values for Hg concentration, stack gas flow rate, stack gas moisture content, and any other parameters required to determine Hg mass emissions and heat input in accordance with **40 CFR 75.80(g)**.~~
~~(b) The owner or operator of a Hg Budget unit that does not meet the applicable compliance date set forth in subsection (2)(c) of this rule for any monitoring system under subsection (1)(a) must, for each such monitoring system, determine, record, and report substitute data using the applicable missing data procedures in **40 CFR part 75 subpart D**, in lieu of the maximum potential (or, as appropriate, minimum potential) values, for a parameter if the owner or operator demonstrates that there is continuity between the data streams for that parameter before and after the construction or installation under subsection (2)(c) of this rule.~~
~~(4) Prohibitions.~~
~~(a) No owner or operator of a Hg Budget unit shall use any alternative monitoring system, alternative reference method, or any other alternative to any requirement of this rule and OAR 340-228-0660 through 0670 without having obtained prior written approval in accordance with OAR 340-228-0668.~~
~~(b) No owner or operator of a Hg Budget unit shall operate the unit so as to discharge, or allow to be discharged, Hg emissions to the atmosphere without accounting for all such emissions in accordance with the applicable provisions of this rule, OAR 340-228-0660 through 0670, and **40 CFR part 75 subpart I**.~~
~~(c) No owner or operator of a Hg Budget unit shall disrupt the continuous emission monitoring system, any portion thereof, or any other approved emission monitoring method, and thereby avoid monitoring and recording Hg mass emissions discharged into the atmosphere, except for periods of recertification or periods when calibration, quality assurance testing, or maintenance is performed in accordance with the applicable provisions of this rule, OAR 340-228-0660 through 0670, and **40 CFR part 75 subpart I**.~~
~~(d) No owner or operator of a Hg Budget unit shall retire or permanently discontinue use of the continuous emission monitoring system, any component thereof, or any other approved monitoring system under this rule, except under any one of the following circumstances:~~
~~(A) During the period that the unit is covered by an exemption under OAR 340-228-0605 that is in effect;~~
~~(B) The owner or operator is monitoring emissions from the unit with another certified monitoring system approved, in accordance with the applicable provisions of this rule, OAR 340-228-0660 through 0670, and **40 CFR part 75 subpart I**, by the Department for use at that unit that provides emission data for the same pollutant or parameter as the retired or discontinued monitoring system; or~~

~~(C) The Hg designated representative submits notification of the date of certification testing of a replacement monitoring system for the retired or discontinued monitoring system in accordance with OAR 340-228-0660(3)(c)(A).~~
~~Stat. Auth.: ORS 468.020 & 468A.310~~
~~Stats. Implemented: ORS 468A.025~~
~~Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06~~

~~340-228-0660~~
~~Initial Certification and Recertification Procedures~~
~~(1) The owner or operator of a Hg Budget unit shall be exempt from the initial certification requirements of this rule for a monitoring system under OAR 340-228-0658(1)(a) if the following conditions are met:~~
~~(a) The monitoring system has been previously certified in accordance with 40 CFR part 75; and~~
~~(b) The applicable quality-assurance and quality-control requirements of 40 CFR 75.21 and appendix B to 40 CFR part 75 are fully met for the certified monitoring system described in subsection (1)(a) of this rule.~~
~~(2) The recertification provisions of this rule shall apply to a monitoring system under OAR 340-228-0658(1)(a) exempt from initial certification requirements under section (1) of this rule.~~
~~(3) Except as provided in section (1) of this rule, the owner or operator of a Hg Budget unit must comply with the following initial certification and recertification procedures for a continuous monitoring system (e.g., a continuous emission monitoring system and an excepted monitoring system (sorbent trap monitoring system) under 40 CFR 75.15) under OAR 340-228-0658(1)(a). The owner or operator of a unit that qualifies to use the Hg low mass emissions excepted monitoring methodology under 40 CFR 75.81(b) or that qualifies to use an alternative monitoring system under 40 CFR part 75 subpart E must comply with the procedures in section (4) or (5) of this rule respectively.~~
~~(a) Requirements for initial certification. The owner or operator must ensure that each monitoring system under OAR 340-228-0658(1)(a) (including the automated data acquisition and handling system) successfully completes all of the initial certification testing required under 40 CFR 75.20 by the applicable deadline in OAR 340-228-0658(2). In addition, whenever the owner or operator installs a monitoring system to meet the requirements of this rule in a location where no such monitoring system was previously installed, initial certification in accordance with 40 CFR 75.20 is required.~~
~~(b) Requirements for recertification. Whenever the owner or operator makes a replacement, modification, or change in any certified continuous emission monitoring system, or an excepted monitoring system (sorbent trap monitoring system) under 40 CFR 75.15, under OAR 340-228-0658(1)(a) that may significantly affect the ability of the system to accurately measure or record Hg mass emissions or heat input rate or to meet the quality-assurance and quality-control requirements of 40 CFR 75.21 or appendix B to 40 CFR part 75, the owner or operator must recertify the monitoring system in accordance with 40 CFR 75.20(b). Furthermore, whenever the owner or operator makes a replacement, modification, or change to the flue gas handling system or the unit's operation that may significantly change the stack flow or concentration profile, the owner or operator must recertify each continuous emission monitoring system, and each excepted monitoring system (sorbent trap monitoring system) under 40 CFR 75.15, whose accuracy is potentially affected by the change, in accordance with 40 CFR 75.20(b). Examples of changes to a continuous emission monitoring system that require recertification include replacement of the analyzer, complete replacement of an existing continuous emission monitoring system, or change in location or orientation of the sampling probe or site.~~

~~(c) Approval process for initial certification and recertification. Paragraphs (3)(c)(A) through (D) of this rule apply to both initial certification and recertification of a continuous monitoring system under OAR 340-228-0658(1)(a). For recertifications, apply the word "recertification" instead of the words "certification" and "initial certification" and apply the word "recertified" instead of the word "certified," and follow the procedures in 40 CFR 75.20(b)(5) in lieu of the procedures in paragraph (3)(c)(E) of this rule.~~

~~(A) Notification of certification. The Hg designated representative must submit to the Department, the EPA Region 10 Office, and the Administrator written notice of the dates of certification testing, in accordance with OAR 340-228-0668.~~

~~(B) Certification application. The Hg designated representative must submit to the Department a certification application for each monitoring system. A complete certification application must include the information specified in 40 CFR 75.63.~~

~~(C) Provisional certification date. The provisional certification date for a monitoring system must be determined in accordance with 40 CFR 75.20(a)(3). A provisionally certified monitoring system may be used under the Hg Budget Trading Program for a period not to exceed 120 days after receipt by the Department of the complete certification application for the monitoring system under paragraph (3)(c)(B) of this rule. Data measured and recorded by the provisionally certified monitoring system, in accordance with the requirements of 40 CFR part 75, will be considered valid quality-assured data (retroactive to the date and time of provisional certification), provided that the Department does not invalidate the provisional certification by issuing a notice of disapproval within 120 days of the date of receipt of the complete certification application by the Department.~~

~~(D) Certification application approval process. The Department will issue a written notice of approval or disapproval of the certification application to the owner or operator within 120 days of receipt of the complete certification application under paragraph (3)(c)(B) of this rule. In the event the Department does not issue such a notice within such 120-day period, each monitoring system that meets the applicable performance requirements of 40 CFR part 75 and is included in the certification application will be deemed certified for use under the Hg Budget Trading Program.~~

~~(i) Approval notice. If the certification application is complete and shows that each monitoring system meets the applicable performance requirements of 40 CFR part 75, then the Department will issue a written notice of approval of the certification application within 120 days of receipt.~~

~~(ii) Incomplete application notice. If the certification application is not complete, then the Department will issue a written notice of incompleteness that sets a reasonable date by which the Hg designated representative must submit the additional information required to complete the certification application. If the Hg designated representative does not comply with the notice of incompleteness by the specified date, then the Department may issue a notice of disapproval under subparagraph (3)(c)(D)(iii) of this rule. The 120-day review period must not begin before receipt of a complete certification application.~~

~~(iii) Disapproval notice. If the certification application shows that any monitoring system does not meet the performance requirements of 40 CFR part 75 or if the certification application is incomplete and the requirement for disapproval under subparagraph (3)(c)(D)(ii) of this rule is met, then the Department will issue a written notice of disapproval of the certification application. Upon issuance of such notice of disapproval, the provisional certification is invalidated by the Department and the data measured and recorded by each uncertified monitoring system must not be considered valid quality-assured data beginning with the date and hour of provisional certification (as defined under 40 CFR 75.20(a)(3)). The owner or operator must follow the procedures for loss of certification in paragraph (3)(c)(E) of this rule for each monitoring system that is disapproved for initial certification.~~

~~(iv) Audit decertification. The Department may issue a notice of disapproval of the certification status of a monitor in accordance with OAR 340-228-0662(2).~~
~~(E) Procedures for loss of certification. If the Department issues a notice of disapproval of a certification application under subparagraph (3)(c)(D)(iii) of this rule or a notice of disapproval of certification status under subparagraph (3)(c)(D)(iv) of this rule, then:~~
~~(i) The owner or operator must substitute the following values, for each disapproved monitoring system, for each hour of unit operation during the period of invalid data specified under 40 CFR 75.20(a)(4)(iii), 40 CFR 75.21(e) and continuing until the applicable date and hour specified under 40 CFR 75.20(a)(5)(i):~~
~~(I) For a disapproved Hg pollutant concentration monitors and disapproved flow monitor, respectively, the maximum potential concentration of Hg and the maximum potential flow rate, as defined in sections 2.1.7.1 and 2.1.4.1 of appendix A to 40 CFR part 75; and~~
~~(II) For a disapproved moisture monitoring system and disapproved diluent gas monitoring system, respectively, the minimum potential moisture percentage and either the maximum potential CO2 concentration or the minimum potential O2 concentration (as applicable), as defined in sections 2.1.5, 2.1.3.1, and 2.1.3.2 of appendix A to 40 CFR part 75.~~
~~(III) For a disapproved excepted monitoring system (sorbent trap monitoring system) under 40 CFR 75.15 and disapproved flow monitor, respectively, the maximum potential concentration of Hg and maximum potential flow rate, as defined in sections 2.1.7.1 and 2.1.4.1 of appendix A to 40 CFR part 75.~~
~~(ii) The Hg designated representative must submit a notification of certification retest dates and a new certification application in accordance with paragraphs (3)(c)(A) and (B) of this rule.~~
~~(iii) The owner or operator must repeat all certification tests or other requirements that were failed by the monitoring system, as indicated in the Department's notice of disapproval, no later than 30 unit operating days after the date of issuance of the notice of disapproval.~~
~~(4) Initial certification and recertification procedures for units using the Hg low mass emission excepted methodology under 40 CFR 75.81(b). The owner or operator of a unit qualified to use the Hg low mass emissions (HgLME) excepted methodology under 40 CFR 75.81(b) must meet the applicable certification and recertification requirements in 40 CFR 75.81(c) through (f).~~
~~(5) Certification/recertification procedures for alternative monitoring systems. The Hg designated representative of each unit for which the owner or operator intends to use an alternative monitoring system approved by the Administrator and, if applicable, the Department under 40 CFR part 75 subpart E must comply with the applicable notification and application procedures of 40 CFR 75.20(f).~~
~~Stat. Auth.: ORS 468.020 & 468A.310~~
~~Stats. Implemented: ORS 468A.025~~
~~Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06~~

~~**340-228-0662**~~
~~**Out of Control Periods**~~
~~(1) Whenever any monitoring system fails to meet the quality-assurance and quality-control requirements or data validation requirements of 40 CFR part 75, data must be substituted using the applicable missing data procedures in 40 CFR part 75 subpart D.~~
~~(2) Audit decertification. Whenever both an audit of a monitoring system and a review of the initial certification or recertification application reveal that any monitoring system should not have been certified or recertified because it did not meet a particular performance specification or other~~

~~requirement under OAR 340-228-0660 or the applicable provisions of 40 CFR part 75, both at the time of the initial certification or recertification application submission and at the time of the audit, the Department will issue a notice of disapproval of the certification status of such monitoring system. For the purposes of this paragraph, an audit must be either a field audit or an audit of any information submitted to the Department or the Administrator. By issuing the notice of disapproval, the Department revokes prospectively the certification status of the monitoring system. The data measured and recorded by the monitoring system must not be considered valid quality-assured data from the date of issuance of the notification of the revoked certification status until the date and time that the owner or operator completes subsequently approved initial certification or recertification tests for the monitoring system. The owner or operator must follow the applicable initial certification or recertification procedures in OAR 340-228-0660 for each disapproved monitoring system.~~
~~Stat. Auth.: ORS 468.020 & 468A.310~~
~~Stats. Implemented: ORS 468A.025~~
~~Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06~~

~~340-228-0664~~
~~Notifications~~
~~The Hg designated representative for a Hg Budget unit must submit written notice to the Department and the Administrator in accordance with 40 CFR 75.61, except that if the unit is not subject to an Acid Rain emissions limitation, the notification is only required to be sent to the Department.~~
~~Stat. Auth.: ORS 468.020 & 468A.310~~
~~Stats. Implemented: ORS 468A.025~~
~~Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06~~

~~340-228-0666~~
~~Recordkeeping and Reporting~~
~~(1) General provisions.~~
~~(a) The Hg designated representative must comply with all recordkeeping and reporting requirements in this section and the requirements of OAR 340-228-0612(5)(a).~~
~~(b) If a Hg Budget unit is subject to an Acid Rain emission limitation and the Hg designated representative who signed and certified any submission made under 40 CFR part 75 subpart F or G and that includes data and information required under this section, OAR 340-228-0658 through 0664, 0668, 0670, or 40 CFR part 75 subpart I is not the same person as the designated representative or alternative designated representative, or for the unit under 40 CFR part 72, then the submission must also be signed by the designated representative or alternative designated representative, as applicable.~~
~~(2) Monitoring plans. The owner or operator of a Hg Budget unit must comply with the applicable requirements of 40 CFR 63.7521(b) and 40 CFR 75.84(e).~~
~~(3) Certification applications. The Hg designated representative must submit an application to the Department within 45 days after completing all initial certification or recertification tests required under OAR 340-228-0660, including the information required under 40 CFR 75.63.~~
~~(4) Quarterly reports. The Hg designated representative must submit quarterly reports, as follows:~~
~~(a) The Hg designated representative must report the Hg mass emissions data and heat input data for the Hg Budget unit, in an electronic quarterly report in a format prescribed by the Administrator, for each calendar quarter beginning with:~~

~~(A) For a unit that commences commercial operation before July 1, 2008, the calendar quarter covering January 1, 2009 through March 31, 2009; or~~

~~(B) For a unit that commences commercial operation on or after July 1, 2008, the calendar quarter corresponding to the earlier of the date of provisional certification or the applicable deadline for initial certification under OAR 340-228-0658(2), unless that quarter is the third or fourth quarter of 2008, in which case reporting must commence in the quarter covering January 1, 2009 through March 31, 2009.~~

~~(b) On and after January 1, 2019, the first quarterly report in a calendar year must include calendar year mercury emission totals.~~

~~(c) The Hg designated representative must submit each quarterly report to the Administrator within 30 days following the end of the calendar quarter covered by the report. Quarterly reports must be submitted in the manner specified in 40 CFR 75.84(f).~~

~~(d) For Hg Budget units that are also subject to an Acid Rain emissions limitation, quarterly reports must include the applicable data and information required by 40 CFR part 75 subparts F through H as applicable, in addition to the Hg mass emission data, heat input data, and other information required by this section, OAR 340-228-0658 through 0664, 0668, and 0670.~~

~~(5) Compliance certification. The Hg designated representative must submit to the Administrator a compliance certification (in a format prescribed by the Administrator) in support of each quarterly report based on reasonable inquiry of those persons with primary responsibility for ensuring that all of the unit's emissions are correctly and fully monitored. The certification must state that:~~

~~(a) The monitoring data submitted were recorded in accordance with the applicable requirements of this rule, OAR 340-228-0658 through 0664, 0668, 0670, and 40 CFR part 75, including the quality assurance procedures and specifications; and~~

~~(b) For a unit with add-on Hg emission controls, a flue gas desulfurization system, a selective catalytic reduction system, or a compact hybrid particulate collector system and for all hours where Hg data are substituted in accordance with 40 CFR 75.34(a)(1), the Hg add-on emission controls, flue gas desulfurization system, selective catalytic reduction system, or compact hybrid particulate collector system were operating within the range of parameters listed in the quality assurance/quality control program under appendix B to 40 CFR part 75, or quality-assured SO2 emission data recorded in accordance with 40 CFR part 75 document that the flue gas desulfurization system, or quality-assured NOX emission data recorded in accordance with 40 CFR part 75 document that the selective catalytic reduction system, was operating properly, as applicable, and the substitute data values do not systematically underestimate Hg emissions.~~

~~Stat. Auth.: ORS 468.020 & 468A.310~~
~~Stats. Implemented: ORS 468A.025~~
~~Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06~~

~~340-228-0668~~

~~Petitions~~

~~The Hg designated representative of a Hg unit may submit a petition under 40 CFR 75.66 to the Administrator requesting approval to apply an alternative to any requirement of OAR 340-228-0658 through 0666 and 0670. Application of an alternative is in accordance with this section and OAR 340-228-0658 through 0666 and 0670 only to the extent that the petition is approved in writing by the Administrator, in consultation with the Department.~~

~~Stat. Auth.: ORS 468.020 & 468A.310~~
~~Stats. Implemented: ORS 468A.025~~
~~Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06~~

~~340-228-0670~~
~~Additional Requirements to Provide Heat Input Data~~
~~The owner or operator of a Hg Budget unit that monitors and reports Hg mass emissions using a Hg concentration monitoring system and a flow monitoring system must also monitor and report heat input rate at the unit level using the procedures set forth in 40 CFR part 75.~~
~~Stat. Auth.: ORS 468.020 & 468A.310~~
~~Stats. Implemented: ORS 468A.025~~
~~Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06~~

~~Hg Emission Standards and Emission Caps~~

~~340-228-0671~~
~~Emission Standards~~
~~(1) Mercury reduction plan. By July 1, 2009 or 1-year prior to commencement of commercial operation, whichever is later, the owner or operator of each Hg Budget unit must develop and submit for Department approval a mercury reduction plan for each Hg Budget unit. The plan must propose a control strategy for mercury that is most likely to result in the capture of at least 90 percent of the mercury emitted from the unit or that will limit mercury emissions to 0.60 pounds per trillion BTU of heat input. The owner or operator must demonstrate that the plan reflects technology that could reasonably be expected to meet the limits in this section if the technology operates as anticipated by the manufacturer. The plan must provide a timeframe for implementation of the selected control strategy including major milestones, installation and operation requirements, and work practice standards for the selected technology. The owner and operator of the Hg Budget unit may proceed with the plan within 60 days of submittal unless, within the 60 day period, the Department notifies the owner or operator of the Hg Budget unit that the plan must be revised.~~
~~(2) Mercury emission standards. On and after July 1, 2012 or at commencement of commercial startup, whichever is later, except as allowed under section (3) of this rule, each Hg Budget unit must have implemented the approved control strategy projected to achieve at least 90 percent mercury capture or that will limit mercury emissions to 0.60 pounds per trillion BTU of heat input.~~
~~(3) Compliance extension. Up to a 1-year extension of the requirement to implement the approved control strategy may be granted by the Department if the owner or operator of a Hg Budget unit demonstrates that it is not practical to install mercury control equipment by July 1, 2012 due to supply limitations or other extenuating circumstances that are beyond the control of the owner or operator.~~
~~(4) Compliance demonstration. Commencing in July 2013 or 12 months after commercial startup or 12 months after expiration of the extension granted under section (3) of this rule, whichever is later, each Hg Budget unit must thereafter demonstrate compliance with one of the standards in subsections (4)(a) or (4)(b) of this rule for each compliance period, except as allowed under sections (5) and (6) of this rule. A compliance period consists of twelve months. Each month commencing with June 2013 or the twelfth month after commencement of commercial operation or twelfth month after expiration of the extension granted under section (3) of this rule, whichever is later, is the end of a compliance period consisting of that month and the previous 11 months.~~

~~(a) A mercury emission standard of 0.60 pounds per trillion BTU of heat input calculated by dividing the Hg emissions determined using a mercury CEMS or sorbent trap monitoring system by heat input as determined according to OAR 340-228-0674; or~~

~~(b) A minimum 90-percent capture of inlet mercury determined as follows:~~

~~(A) Inlet mercury must be determined as follows:~~

~~(i) The owner or operator must test coal for mercury consistent with a coal sampling and analysis plan prepared according to OAR 340-228-0676; or~~

~~(ii) The owner or operator must measure mercury emissions prior to any control device(s) according to OAR 340-228-0678.~~

~~(B) The mercury capture efficiency must be calculated using the Hg emissions determined using a mercury CEMS or sorbent trap monitoring system and the inlet mercury determined using the coal mercury content data obtained in accordance with subparagraph (1)(b)(A)(i) of this rule or the measured inlet mercury data obtained in accordance with subparagraph (1)(b)(A)(ii) of this rule and a calculation methodology approved by the Department.~~

~~(5) Temporary compliance alternative. If the owner or operator of a Hg Budget unit properly implements the approved control strategy and the strategy fails to achieve at least 90 percent mercury capture or limit mercury emissions to 0.60 pounds per trillion BTU of heat input:~~

~~(a) The owner or operator must notify the Department of the failure within 30 days of the end of the initial compliance period; and~~

~~(b) The owner or operator must file an application with the Department for a permit or permit modification in accordance with OAR 340 division 216 to establish a temporary alternative mercury emission limit. The application must be filed within 60 days of the end of the initial compliance period, and must include a continual program of mercury control progression able to achieve at least 90 percent mercury capture or to limit mercury emissions to 0.60 pounds per trillion BTU of heat input and all monitoring and operating data for the Hg Budget unit.~~

~~(c) The Department may establish a temporary alternative mercury emission limit only if the owner or operator applies for a permit or permit modification, that includes a control strategy that the Department determines constitutes a continual program of mercury control progression able to achieve at least 90 percent mercury capture or to limit mercury emissions to 0.60 pounds per trillion BTU of heat input.~~

~~(d) Establishment of a temporary alternative mercury emission limit requires public notice in accordance with OAR 340 division 209 for Category III permit actions~~

~~(e) If the owner or operator files an application under subsection (5)(b) of this rule, the Hg Budget unit must operate according to the temporary alternative mercury emission limit proposed in the permit or permit modification application until the Department either denies the application or issues the permit or permit modification. Compliance with the proposed temporary alternative mercury emission limit prior to final Department action on the application shall constitute compliance with the limits in section (4) of this rule.~~

~~(f) A temporary alternative mercury emission limit established in a permit expires July 1, 2015 or within 2 years of commencement of commercial operation, whichever is later.~~

~~(6) Permanent compliance alternative. If the owner or operator of a Hg Budget unit is unable to achieve at least 90 percent mercury capture or an emission level of 0.60 pounds per trillion BTU of heat input by July 1, 2015 or within 2 years of commencement of commercial operation, whichever is later, despite properly implementing the continual program of mercury progression required in section (5) of this rule:~~

~~(a) The owner or operator of the Hg Budget unit may file an application with the Department for a permit modification in accordance with OAR 340 division 216 to establish a permanent alternative~~

~~mercury emission limit that comes as near as technically possible to achieving 90 percent mercury capture or an emission level of 0.60 pounds per trillion BTU of heat input.~~
~~(b) The Department may establish a permanent alternative mercury emission limit only if the owner or operator applies for a permit modification, that proposes an alternative mercury emission limit that the Department determines comes as near as technically possible to achieving 90 percent mercury capture or an emission level of 0.60 pounds per trillion BTU of heat input.~~
~~(c) Establishment of a permanent alternative mercury emission limit requires public notice in accordance with OAR 340 division 209 for Category IV permit actions.~~
~~(d) If the owner or operator files an application under subsection (6)(a) of this rule, the Hg Budget unit must operate according to the permanent alternative mercury emission limit proposed in the permit modification application until the Department either denies the application or modifies the permit. Compliance with the proposed permanent alternative mercury emission limit prior to final Department action on the application shall constitute compliance with the limits in section (4) of this rule.~~
~~Stat. Auth.: ORS 468.020 & 468A.310~~
~~Stats. Implemented: ORS 468A.025~~
~~Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06~~

~~340-228-0672~~
~~Emission Caps~~
~~Beginning in calendar year 2018, the state's annual allowable mercury emissions from electric generating units shall apply as the following Hg Budget unit specific emission caps.~~
~~(1) Existing Boardman Hg Budget unit cap. The existing Hg Budget unit in Boardman shall emit no more than:~~
~~(a) 60 pounds of mercury in any calendar year in which there are no new Hg Budget units operated in Oregon.~~
~~(b) 35 pounds of mercury in any calendar year in which there are new Hg Budget units operated in Oregon.~~
~~(2) New Hg Budget unit cap:~~
~~(a) New Hg Budget units, in aggregate, shall emit no more than:~~
~~(A) 25 pounds of mercury in any calendar year in which the existing Hg Budget unit in Boardman is operated.~~
~~(B) 60 pounds of mercury in any calendar year in which the existing Hg Budget unit in Boardman is not operated.~~
~~(b) The Hg designated representative of each new Hg Budget unit shall submit to the Department a request, in a format specified by the Department, to receive a portion of the new Hg Budget unit cap. The request may not be submitted until the new Hg Budget unit has received its Site Certification from the Facility Siting Council, or if the new Hg Budget unit is not required to obtain a Site Certificate, all governmental approvals necessary to commence construction.~~
~~(c) The Department will allocate the new Hg Budget unit cap in order of receipt of requests and, once allocated, the new Hg Budget unit shall be entitled to receive and equal allocation in future years unless the new Hg Budget unit permanently ceases operations.~~
~~(d) Each individual new Hg Budget unit shall emit no more than the lesser of:~~
~~(A) An amount of mercury determined by multiplying the design heat input in TBtu of such Hg Budget unit by 0.60 pounds per TBtu rounded to the nearest pound as appropriate, or~~

~~(B) The amount of the emission cap under (2)(a) or (b) less the amount of the emission cap under(2)(a) or (b) that has been allocated to other new Hg Budget units.~~
~~(3) Compliance demonstration. Each Hg Budget unit must demonstrate compliance with the applicable calendar year emission cap in sections(1) or (2) of this rule using a mercury CEMS or sorbent trap monitoring system.~~
~~Stat. Auth.: ORS 468.020 & 468A.310~~
~~Stats. Implemented: ORS 468A.025~~
~~Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06; DEQ 8-2007, f. & cert. ef. 11-8-07~~

~~340-228-0673~~
~~Monitoring Requirements for the Hg Emission Standards~~
~~(1) Requirements for installation, certification, and data accounting. The owners and operators of a Hg Budget unit must:~~
~~(a) Install all applicable monitoring systems required under OAR 340-228-0674 through 0678 for monitoring individual unit heat input and inlet Hg.~~
~~(b) Successfully complete certification tests under OAR 340-228-0660 and meet all other requirements of this rule, OAR 340-228-0660 through 0670, and 40 CFR part 75 subpart I for the monitoring systems under subsection (1)(a) of this rule.~~
~~(c) Record, report, and quality-assure the data from the monitoring systems under subsection (1)(a) of this rule.~~
~~(d) Reports and petitions required in subsections (1)(b) and (1)(c) of this rule must be submitted to the Department, not to the Administrator.~~
~~(2) Compliance deadlines. The owner or operator must meet the monitoring system certification and other requirements of subsections (1)(a) and(b) of this rule on or before the following dates. The owner or operator must record, report, and quality-assure the data from the monitoring systems under subsection (1)(a) of this rule on and after the following dates.~~
~~(a) Heat input. For monitoring systems used to monitor heat input in accordance with OAR 340-228-0671(4)(a), if applicable, by the later of the following dates:~~
~~(A) July 1, 2012 or the date established under OAR 340-228-0671(3); or~~
~~(B) The date on which the unit commences commercial operation.~~
~~(b) Inlet Hg. If required to perform coal sampling and analysis in accordance with OAR 340-228-0671(4)(b)(A)(i) and 340-228-0676 or measure Hg emission prior to any control device(s) in accordance with OAR 340-228-0671(4)(b)(A)(ii) and 340-228-0678, if applicable, by the later of the following dates:~~
~~(A) July 1, 2012 or the date established under OAR 340-228-0671(3); or~~
~~(B) The date on which the unit commences commercial operation.~~
~~(3) Reporting data.~~
~~(a) The owner or operator of a Hg Budget unit that does not meet the applicable compliance date set forth in section(2) of this rule for any monitoring system under subsection(1)(a) of this rule must, for each monitoring system, determine, record, and report maximum potential(or, as appropriate, minimum potential) values for heat input, inlet Hg, and any other parameters required to determine heat input and Hg inlet in accordance with OAR 340-228-0674 through 0678.~~
~~(b) On and after January 1, 2018, the owner or operator of a Hg Budget unit must submit to the Department quarterly reports of monthly and 12-month rolling average mercury emissions per trillion Btu of energy input and/or mercury capture efficiency, for each month in the calendar quarter.~~

~~(4) Prohibitions. No owner or operator of a Hg Budget unit shall disrupt any emission monitoring method, and thereby avoid monitoring and recording heat input, and/or inlet Hg, except for periods of recertification or periods when calibration, quality assurance testing, or maintenance is performed in accordance with the applicable provisions of this rule, OAR 340-228-0660 through 0670, and 40 CFR part 75 subpart I.~~

~~Stat. Auth.: ORS 468.020 & 468A.310~~

~~Stats. Implemented: ORS 468A.025~~

~~Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06; DEQ 8-2007, f. & cert. ef. 11-8-07~~

~~340-228-0674~~

~~Heat Input Determination~~

~~To demonstrate compliance with OAR 340-228-0671(2) for each Hg Budget unit, the owner or operator of such Hg Budget unit must determine the heat input according to 40 CFR part 75, appendix F (procedures 5 and 9).~~

~~Stat. Auth.: ORS 468.020 & 468A.310~~

~~Stats. Implemented: ORS 468A.025~~

~~Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06; DEQ 8-2007, f. & cert. ef. 11-8-07~~

~~340-228-0676~~

~~Coal Sampling and Analysis~~

~~To demonstrate compliance with OAR 340-228-0671(2) with coal sampling and analysis for each Hg Budget unit, the owner or operator of such Hg Budget unit must test its coal for mercury consistent with a coal sampling and analysis plan. The coal sampling and analysis plan must be consistent with the requirements of 40 CFR 63.7521.~~

~~Stat. Auth.: ORS 468.020 & 468A.310~~

~~Stats. Implemented: ORS 468A.025~~

~~Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06; DEQ 8-2007, f. & cert. ef. 11-8-07~~

~~340-228-0678~~

~~Hg Mass Emissions Measurement Prior to Any Control Device(s)~~

~~To demonstrate compliance with OAR 340-228-0671(2) by measuring Hg mass emissions for each Hg Budget unit, the owner or operator of such Hg Budget unit must measure mercury emissions prior to any control device(s) according to 40 CFR part 75 subpart I or 40 CFR 75.15.~~

~~Stat. Auth.: ORS 468.020 & 468A.310~~

~~Stats. Implemented: ORS 468A.025~~

~~Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06; DEQ 8-2007, f. & cert. ef. 11-8-07~~

Table 1 (OAR 340-228-0631(1))
Missing Data Procedures for Hg CEMS

Trigger conditions		Calculation routines	
Monitor data availability (percent)	Duration (N) of CEMS outage (hours)[1]	Method	Look back period
90 or more	N < 24	Average	hour before/hour after
	N > 24	Greater of average; or	hour before/hour after
		90th percentile	720 hours*
> 80 but < 90	N < 8	Average	hour before/hour after
	N > 8	Greater of average; or	hour before/hour after
		90th percentile	720 hours*
> 70 but < 80	N > 0	Maximum value**	720 hours*
Below 70	N > 0	Maximum potential concentration*** or %	None

1 During unit operating hours.

*Quality-assured, monitor operating hours, during unit operation. Use data from no earlier than 3 years prior to the missing data period.

**Where a unit with add-on Hg emission controls can demonstrate that the controls are operating properly during the missing data period, as provided in 40 CFR 75.34, the unit may use the maximum controlled concentration from the previous 720 quality-assured monitor operating hours.

*** Alternatively, where a unit with add-on Hg emission controls can demonstrate that the controls are operating properly during the missing data period, as provided in 40 CFR 75.34, the unit may report the greater of: (a) the maximum expected Hg concentration or (b) 1.25 times the maximum controlled value from the previous 720 quality-assured monitor operating hours.

Table 2 (OAR 340-228-0627(8))
Quality Assurance/Quality Control Criteria for Sorbent Trap Monitoring Systems

QA/QC test or specification	Acceptance criteria	Frequency	Consequences if not met
Pre-test leak check………………….	<4% of target sampling rate..	Prior to sampling…	Sampling shall not commence until the leak check is passed.
Post-test leak check…………………	<4% of average sampling rate..	After sampling……...	*
Ratio of stack gas flow rate to sample flow rate…………………………….	No more than 5% of the hourly ratios (which-ever is less restrictive) may deviate from the reference ratio by more than + 25%.	Every hour throughout data collection period.	*
Sorbent trap section 2 breakthrough.	≤ 5% of Section 1 Hg mass.........	Every sample............	*
Paired sorbent trap agreement………	<10% Relative Deviation (RD) if the average concentration is > 1.0 µg/m³. Results are also acceptable if absolute difference between concentrations from paired traps is < 0.03 µg/m³.	Every sample............	Either invalidate the data from the paired traps or report the results from the trap with the higher Hg concentration.
Spike recovery study.........................	Average recovery between 85% and 115% for each of the 3 spike concentration levels.	Prior to analyzing field samples and prior to use of new sorbent media.	Field samples shall not be analyzed until the percent recovery criteria has been met.
Multipoint analyzer calibration..........	Each analyzer reading within + 10% of true value and $r^2 \geq 0.99$.	On the day of analysis, before analyzing any samples.	Recalibrate until successful.
Analysis of independent calibration standard.…………………………….	Within + 10% of true value.........	Following daily calibration, prior to analyzing field samples.	Recalibrate and repeat independent standard analysis until successful.
Spike recovery from section 3 of sorbent trap………………………….	75–125% of spike amount..........	Every sample............	*
RATA……………………………….	RA ≤ 20.0% or mean difference ≤ 1.0 µg/dscm for low emitters.	For initial certification and annually thereafter.	Data from the system are invalidated until a RATA is

			passed.
Gas flow meter calibration…………	Calibration factor (Y) within + 5% of average value from the initial 3-point calibration.	At three settings prior to initial use and at least quarterly at one setting thereafter. For mass flow meters, initial calibration with stack gas is required.	Recalibrate the meter at three orifice settings to determine a new value of Y.
Temperature sensor calibration…......	Absolute temperature measured by sensor within + 1.5% of a reference sensor.	Prior to initial use and at least quarterly thereafter.	Recalibrate. Sensor may not be used until specification is met.
Barometer calibration........................	Absolute pressure measured by instrument within + 10 mm Hg of reading with a mercury barometer.	Prior to initial use and at least quarterly thereafter.	Recalibrate. Instrument may not be used until specification is met.

* Note: If both traps fail to meet the acceptance criteria, the data from the pair of traps are invalidated. However, if only one of the paired traps fails to meet this particular acceptance criterion and the other sample meets all of the applicable QA criteria, the results of the valid trap may be used for reporting under this part, provided that the measured Hg concentration is multiplied by a factor of 1.111. When the data from both traps are invalidated and quality-assured data from a certified backup monitoring system, reference method, or approved alternative monitoring system are unavailable, missing data substitution must be used.

Table 3 (OAR 340-228-0639)
Coal Analysis Requirements. The owner or operator must comply with the following requirements for coal analysis testing for existing, new or reconstructed affected sources. However, equivalent methods may be used in lieu of the prescribed methods at the discretion of the source owner or operator:

The owner or operator must	**Using**
a. Collect coal samples	Procedure in OAR 340-228-0639(3), ASTM D2234–D2234M–03 or equivalent.
b. Composite coal samples	Procedure in OAR 340-228-0639(4) or equivalent.
c. Prepare composited coal samples	ASTM D2013–04 or equivalent.
d. Determine heat content of the coal type	ASTM D5865–04 or equivalent.
e. Determine moisture content of the coal type	ASTM D3173–03 or equivalent.
f. Measure mercury concentration in coal sample	ASTM D6722–01 or equivalent.
g. Convert concentration into units of pounds of pollutant per MMBtu of heat content.	

Table 4 (OAR 340-228-0635)
Codes for Method of Emissions and Flow Determination

Code	**Hourly emissions/flow measurement or estimation method**
1	Certified primary emission/flow monitoring system.
2	Certified backup emission/flow monitoring system.

3	Approved alternative monitoring system.
4	Reference method:
	SO_2: Method 6C.
	Flow: Method 2 or its allowable alternatives under appendix A to 40 CFR part 75.
	NOX: Method 7E.
	CO_2 or O_2: Method 3A.
5	For units with add-on SO_2 and/or NOX emission controls: SO_2 concentration or NOX emission rate estimate from preapproved parametric monitoring method.
6	Average of the hourly SO_2 concentrations, CO_2 concentrations, O_2 concentrations, NOX concentrations, flow rates, moisture percentages or NOX emission rates for the hour before and the hour following a missing data period.
7	Initial missing data procedures used. Either: (a) the average of the hourly SO_2 concentration, CO_2 concentration, O_2 concentration, or moisture percentage for the hour before and the hour following a missing data period; or (b) the arithmetic average of all NOX concentration, NOX emission rate, or flow rate values at the corresponding load range (or a higher load range), or at the corresponding operational bin (non-load-based units, only); or (c) the arithmetic average of all previous NOX concentration, NOX emission rate, or flow rate values (non-load-based units, only).
8	90th percentile hourly SO_2 concentration, CO_2 concentration, NOX concentration, flow rate, moisture percentage, or NOX emission rate or 10th percentile hourly O_2 concentration or moisture percentage in the applicable lookback period (moisture missing data algorithm depends on which equations are used for emissions and heat input).
9	95th percentile hourly SO_2 concentration, CO_2 concentration, NOX concentration, flow rate, moisture percentage, or NOX emission rate or 5th percentile hourly O_2 concentration or moisture percentage in the applicable lookback period (moisture missing data algorithm depends on which equations are used for emissions and heat input).
10	Maximum hourly SO_2concentration, CO_2 concentration, NOX concentration, flow rate, moisture percentage, or NOX emission rate or minimum hourly O_2 concentration or moisture percentage in the applicable lookback period (moisture missing data algorithm depends on which equations are used for emissions and heat input).
11	Average of hourly flow rates, NOX concentrations or NOX emission rates in corresponding load range, for the applicable lookback period. For non-load-based units, report either the average flow rate, NOX concentration or NOX emission rate in the applicable lookback period, or the average flow rate or NOX value at the corresponding operational bin (if operational bins are used).
12	Maximum potential concentration of SO_2, maximum potential concentration of CO_2, maximum potential concentration of NOX maximum potential flow rate, maximum potential NOX emission rate, maximum potential moisture percentage, minimum potential O_2 concentration or minimum potential moisture percentage, as determined using 40 CFR 72.2 and section 2.1 of appendix A to 40 CFR part 75 (moisture missing data algorithm depends on which equations are used for emissions and heat input).
13	Maximum expected concentration of SO2, maximum expected concentration of NOX, maximum expected Hg concentration, or maximum controlled NOX emission rate. (*See* 40 CFR 75.34(a)(5)).
14	Diluent cap value (if the cap is replacing a CO_2 measurement, use 5.0 percent for boilers and 1.0 percent for turbines; if it is replacing an O_2 measurement, use 14.0 percent for boilers and 19.0 percent for turbines).
15	1.25 times the maximum hourly controlled SO_2 concentration, Hg concentration, NOX concentration at the corresponding load or operational bin, or NOX emission rate at the corresponding load or operational bin,

	in the applicable lookback period (*See* 40 CFR 75.34(a)(5)).
16	SO_2 concentration value of 2.0 ppm during hours when only "very low sulfur fuel", as defined in 40 CFR 72.2, is combusted.
17	Like-kind replacement non-redundant backup analyzer.
19	200 percent of the MPC; default high range value.
20	200 percent of the full-scale range setting (full-scale exceedance of high range).
21	Negative hourly CO_2 concentration, SO_2 concentration, NOX concentration, percent moisture, or NOX emission rate replaced with zero.
22	Hourly average SO_2 or NOX concentration, measured by a certified monitor at the control device inlet (units with add-on emission controls only).
23	Maximum potential SO_2 concentration, NOX concentration, CO_2 concentration, NOX emission rate or flow rate, or minimum potential O_2 concentration or moisture percentage, for an hour in which flue gases are discharged through an unmonitored bypass stack.
24	Maximum expected NOX concentration, or maximum controlled NOX emission rate for an hour in which flue gases are discharged downstream of the NOX emission controls through an unmonitored bypass stack, and the add-on NOX emission controls are confirmed to be operating properly.
25	Maximum potential NOX emission rate (MER). (Use only when a NOX concentration full-scale exceedance occurs and the diluent monitor is unavailable.)
26	1.0 mmBtu/hr substituted for Heat Input Rate for an operating hour in which the calculated Heat Input Rate is zero or negative.
32	Hourly Hg concentration determined from analysis of a single trap multiplied by a factor of 1.111 when one of the paired traps is invalidated or damaged (*See* OAR 340-228-0627(8))).
33	Hourly Hg concentration determined from the trap resulting in the higher Hg concentration when the relative deviation criterion for the paired traps is not met (*See* OAR 340-228-0627(8)).
40	Fuel specific default value (or prorated default value) used for the hour.
54	Other quality assured methodologies approved through petition. These hours are included in missing data lookback and are treated as unavailable hours for percent monitor availability calculations.
55	Other substitute data approved through petition. These hours are not included in missing data lookback and are treated as unavailable hours for percent monitor availability calculations.

340-228-0619

Procedures for Hg Mass Emissions

$$M_{\text{time period}} = \sum_{h=1}^{n} M_h$$

Equation 1

Where:

$M_{\text{time period}}$ = Hg mass emissions for the given time period *i.e.*, quarter or year-to-date, rounded to the nearest thousandth, (ounces)

M_h = Hg mass emissions for the hour, rounded to three decimal places, (ounces)

n = the number of hours in the given time period (quarter or year-to-date)

340-228-0625

Specifications and Test Procedures for Total Vapor Phase Mercury CEMS

$$d = \frac{1}{n}\sum_{i=1}^{n} d_i$$

Equation 2

$$\sum_{i=1}^{n} d_i = \text{Algebraic summation of the individual differences } d_i.$$

Where:

n = number of data points

$$S_d = \left[\frac{\sum_{i=1}^{n} d_i^2 - \frac{\left[\sum_{i=1}^{n} d_i\right]^2}{n}}{n-1}\right]^{\frac{1}{2}}$$

Equation 3

$$CC = t_{0.975}\frac{S_d}{\sqrt{n}}$$

Equation 4

$$RA = \frac{\left[\left| \bar{d} \right| + \left| CC \right| \right]}{\overline{RM}} \times 100$$

Equation 5

Where:

$\left| \bar{d} \right|$ = Absolute value of the mean differences

$\left| CC \right|$ = Absolute value of the confidence coefficient

$\overline{RM}$ = Average RM value

Agenda Item L: Rule Adoption: Adoption of Federal Air Quality Regulations
December 11-12, 2008 EQC Meeting
Attachment B

Summary of Public Comment and Agency Response

Title of Rulemaking: Adoption of Federal Air Quality Regulations

Prepared by: Jerry Ebersole **Date:** August 25, 2008

Comment period	The public comment period opened on July 15, 2008, and closed at 5:00 p.m. on August 26, 2008. DEQ held the following public hearings: • August 18, 2008, 6:00 pm DEQ - Bend Regional Office 300 SE Reed Market Road, Bend 0 attended and 0 testified. • August 19, 2008, 6:00 pm Community Justice Center, 1st Floor Conference Room 1101 W Main, Suite 101, Medford 0 attended and 0 testified. • August 21, 2008, 6:00 pm DEQ Headquarters, Room EQCA 811 S.W. Sixth Avenue, Portland 2 attended and 1 testified. Seventeen comments were submitted by standard mail, fax, or e-mail and one verbal testimony was given at public hearings.
Organization of comments and responses	Summaries of individual comments and the DEQ's responses are provided below. Comments are summarized in categories. The persons who provided each comment are referenced by number. A list of commenters and their reference numbers follows the summary of comments and responses.
Explanation of acronyms used in this document	AQ = Air Quality BART = Best Achievable Retrofit Technology BTU = British Thermal Unit CAMR = Clean Air Mercury Rule CFR = Code of Federal Regulations CMI = Covanta Marion Inc. DEQ = Department of Environmental Quality EIS = Environmental Impact Statement EPA = Environmental Protection Agency EQC = Environmental Quality Commission FGD = Flue Gas Desulfurization GDF = gasoline dispensing Facility HAP = Hazardous Air Pollutant Hg = Mercury km = kilometer MACT = Maximum Achievable Control Technology MWC = Municipal Waste Combustor NESHAP = Nation Emission Standards for Hazardous Air Pollutants NSPS = New Source Performance Standards OPA = Oregon Petroleum Association SIP = State Implementation Plan SO2 = Sulfur dioxide USDA = United States Department of Agriculture

Summary of Comments/Responses	
General Comments	
1. General Air Quality	• Air quality continues to get worse and breathing issues are on the rise because of it. (1) • Please do all that you can to protect citizens and clean up our air. (1)
Response	• *The proposed rules would reduce emissions of a number of hazardous air pollutants (HAP) in Oregon.*
2. Mercury Rules	• What would it take to get rules for airborne Hg broadened to include potential sources in Oregon other than coal? (2)
Response	• *State and/or federal AQ regulations currently regulate Hg emissions from numerous sources, including but not limited to coal-fired power plants, municipal waste combustors, hazardous waste combustors, medical waste combustors, and steel mills. Also, DEQ and Ash Grove Cement recently signed a Mutual Agreement and Order that will require Ash Grove Cement to reduce their mercury emissions by 75-85 percent.*
3. Specific Sources	• Will these new regulations have any effect on permits issued to South Coast Lumber Company or Pacific Wood Laminates in Brookings? (9)
Response	• *No they will not. These sources do not have equipment subject to the new regulations, but may have equipment subject to future regulations.*
Municipal Waste Combustors	
4. General	• "Of this section" is more accurate than "of this rule." (17) • Change "facility" to "unit," "plant" to "facility," and "facilities" to "units." This will reduce confusion between requirements for individual MWC units and the entire facility. (17) • In OAR 340-230-0340(9)(b) change "(9)(a)(A)" to "(9)(b)(A)" to correct a typographical error. (17)
Response	• *Under Oregon's codification structure, DEQ uses "section…of this rule", "subsection…of this section", "paragraph…of this subsection", "subparagraph…of this paragraph", "sub-subparagraph…of this subparagraph", or simply "of this rule," "Of this section" and "of this rule" are equally accurate. For this rulemaking, a stylistic choice was made to use "of this rule."* • *To ensure consistency with the federal rule, DEQ is maintaining the facility/plant terminology used in the federal rule.* • *Corrected OAR 340-230-0340(9)(b).*
5. Emission Standards More Stringent Than Federal	• We are concerned about the unsupported tightening of emission limits beyond what EPA deemed necessary for existing MWCs. (18) • DEQ should not exceed federal requirements that demand large expenditures for small emission reduction unless the agency has a documented and verifiable reason. (18) • We are concerned not only regarding Covanta specifically, but as a broader policy to be applied to other Oregon facilities. (18) • DEQ's process for this rulemaking fails to meet the requirements set forth in legislation passed in 2007. (17) • DEQ should furnish the scientific, economic, technical, administrative, and/or other reason for exceeding the applicable federal requirements. (17, 18) • DEQ should furnish any alternatives considered and the reasons that the alternatives

	were not pursued, or point out where this information is included in the notice. (17, 18) • CMI has little or no control of the materials that the general public disposes of. (17) • CMI has routinely operated below emission limits, but there is no guarantee that we could meet the new limits on a routine basis given the variability of the fuel stream. (17) • This decrease in emission limits at or near those EPA promulgated for new MWCs puts CMI at an increased risk of non-compliance. (17) • Change the proposed limits to be consistent with and no more stringent than 40 CFR part 60 subpart Cb. (17) • DEQ's proposed cadmium limit is more stringent than EPA's limit for units built between 09/20/94 and 12/19/05. CMI began construction in 1984. (17) • DEQ is proposing to limit CMI's operational flexibility without any corresponding protection of human health and the environment. (17) • Why wasn't concern about Covanta's limits raised by DEQ during the Title V permit renewal process? (17)
Response	• *Covanta is Oregon's only large municipal waste combustor and is located in Brooks. DEQ is recommending that EQC tighten requirements for this facility beyond the recently established EPA emission guidelines.* • *DEQ acknowledges industry concern when DEQ proposes standards more stringent than federal requirements. However, it is important to note that in this case EPA has not set emission standards for municipal waste combustor facilities, but instead established emission guidelines. When EPA adopts an emission standard, such as a NSPS or NESHAP, the standard applies whether or not Oregon adopts the standard. Emission guidelines are different in that they are intended as guidance to states based on EPA's review of the best performing sources around the country. In practice, the guidelines set presumptive minimum standards. States are required to set standards at least as protective as the federal emission guidelines based on their own review of technology.* • *DEQ is recommending the proposed standards based on review of Covanta's historical performance, which has consistently demonstrated Covanta's emissions are significantly lower than the federal emission guidelines for cadmium, lead, and dioxins/furans. Moreover, the proposed standards are set conservatively to provide Covanta with ample room for operational flexibility without risk of violation. Because of this Covanta would not need to install any additional controls to comply with the proposed standards.* • *This proposal does not impact broader policy affecting other facilities that are subject to federal standards. Also, it only applies to three pollutants regulated under sections 111 and 129 of the CAA, and does not impact broader policy about how DEQ would address pollutants regulated under section 112 of the CAA or under the SIP.* • *DEQ complied with the 2007 legislation by completing the "Relationship to Federal Requirements" document found in attachment E which states reasons for exceeding applicable federal requirements and alternatives considered. The primary reason for the tighter standards is to ensure that Covanta continues to operate close to its current level of efficiency and so that emissions of three toxic air pollutants do no increase significantly.* • *DEQ agrees that the emission limit for cadmium should not be more stringent that EPA's limit for newer units. DEQ is therefore proposing a cadmium limit of 0.020 mg/dscm.* • *During permit renewal concerns were raised by the public that the levels established by the permit were significantly higher than necessary. However, DEQ sets permit levels*

	consist ant with applicable rules and therefore did not propose modifying the permit.
6. Monitoring and Testing	• Add OAR 340-230-0320 and 0340(12) to standards that apply at all times except during periods of startup, shutdown, and malfunction. (17) • In OAR 340-230-0340, remove references to the Administrator since DEQ is fully delegated these standards. (17) • Change "days" to "hours" in OAR 340-230-0340(5)(g) to be consistent with data availability requirements for other pollutants. (17) • In OAR 340-230-0340(7)(d)(B)(ii) add "where such units use carbon to meet the applicable dioxin/furan emission limit," CMI does not use carbon to comply with their dioxin/furan emission limits and suggests the new language to reflect the intent of the regulatory language. (17) • In OAR 340-230-0340(11)(c) change "on an annual basis (no more than 12 months following previous performance tests)" to "on a calendar year basis (no less than 9 calendar months following the previous performance tests; and must complete five tests in each 5-year calendar period)" to be consistent with the performance testing language for the other pollutants. Discussions with EPA confirmed that this is a typographical error that will be corrected. (17) • In OAR 340-230-0340(12), change "and/or" to "or" to add clarity. CMI does not use carbon to comply with either referenced dioxin/furan limit. (17) • In OAR 340-230-0340(12)(a)(B), add "if applicable" to "during each performance test for dioxin/furan emissions," (17)
Response	• *The rule has been revised to clarify that OAR 340-230-0300 through 0359 apply at all times except during periods of startup, shutdown, and malfunction.* • *During program audits, EPA expressed concern about DEQ replacing Administrator authority with DEQ authority for monitoring and testing requirements. As a result, the proposed rules retain references to Administrator for monitoring and testing requirements.* • *Changed OAR 340-230-0340(5)(g), (7)(d)(B)(ii), (11)(c), (12), and (12)(a)(B) as requested.*
• *Utility Mercury Rule*	
7. Health Effects of Mercury	• Special education programs have grown by leaps and bounds. (5) • The neurological severity of children is so much more than it was a decade ago. (5) • Medical journal articles associate Hg with developmental delays in children. (5, 15) • The Boardman plant presents significant risks to human health and the environment. (15) • Fish species in Oregon already have high fish tissue concentrations of Hg. (15) • Subsistence fishers in the Columbia Basin face unacceptably high health risks as a result of exposure to Hg and other contaminants. (15) • Small amounts of Hg deposition contribute to massive problems for the species exposed to the Hg contamination. (15) • There is, quite simply, no safe level of Hg exposure. (15)
Response	• *In 2006, the EQC adopted the Utility Mercury Rule (UMR) that will require the Boardman coal-fired power plant to capture 90% of its Hg emissions or reduce its Hg emissions to 0.60 pounds per trillion Btus by as early as 2012. DEQ is not recommending any changes to these emissions standards.* • *DEQ shares the commenter's concern about the health effects of mercury and has acted*

	to reduce mercury emissions. • *In addition to the UMR, DEQ entered into a Mutual Agreement and Order with Ash Grove Cement that will require the facility to capture 75 to 85% of its mercury emissions.* • *These requirements will reduce mercury emissions in Oregon by 2,000 to 2,300 pounds per year.*
8. Impact Assessment	• DEQ has consistently ignored or downplayed the risks of Hg contamination. (15) • DEQ has never investigated the extent of Hg contamination in Oregon or the Boardman area. (15) • DEQ did not do any independent research regarding the likely fate and transport of Hg emissions from the PGE Boardman facility. (15) • DEQ's estimates of localized Hg deposition are not correct. (15) • Even if one assumes that DEQ's estimates of localized mercury deposition are correct, the annualized deposition of 8.5 pounds of mercury per year within 100 km of the Boardman facility nonetheless presents significant risks. (15)
Response	• *DEQ agrees that mercury contamination in Oregon is a serious concern and is committed to addressing Oregon sources of mercury and reducing their emissions to the fullest extent practicable. Solving this problem will continue to be challenging because soils in Oregon naturally contain high levels of mercury and a high percentage of mercury that deposits in Oregon comes from sources outside of the U.S. and Canada.* • *DEQ estimated Hg deposition near the Boardman plant as part of the original UMR adoption in 2006, including additional analyses conducted in response to public comments.* • *The EQC already considered public comments regarding mercury fate and transport when it adopted the UMR and required 90% mercury control, which is the highest level achievable at this time. The current proposal does not relax the existing requirements, but eliminates trading provisions that were vacated by the courts.*
9. Change Compliance Dates	• DEQ has repeatedly stated its intent to link the Hg rules with the Regional Haze SIP as the Hg controls and the SO2 controls are inextricably linked. (16) • Revise the date the mercury control plan must be submitted to within 90 days of EPA approval of the Regional Haze SIP. (16) • Link the rule implementation schedule with the Regional Haze SIP deadlines. (16) • The baghouse that is the heart of the SO2 control system is also the heart of the Hg control system and so the two control systems need to move together. (16) • DEQ announced on August 14th that the deadline for implementation of the SO2 control system is 2014, two years after the Hg rule deadline. (16) • Revise the mercury control deadline to the date specified in the EPA approved Regional Haze SIP for installation and operation of SO2 controls. (16)
Response	• *The existing UMR requires compliance in 2012, with a possible one year extension to 2013 if compliance could not be achieved by 2012 for reasons outside of PGE's control. DEQ is not recommending that the EQC change the compliance schedule at this time.* • *DEQ agrees that it is practical to align the installation of Hg controls and the SO2 controls because they use the same baghouse system. The Regional Haze SIP proposal for the Boardman plant is still under development and it is not yet known what the compliance date will be for the SO2 controls. Therefore, it is more appropriate to make any adjustment to the Hg compliance deadlines during the Regional Haze SIP rulemaking.*

10. Don't Change Compliance Date	• An extension based on "supply limitations" should not be included in the rule because PGE has been aware of the need to order Hg and SO2 controls concurrently. (15) • The people and environment of Oregon should not be subjected to continued uncontrolled mercury emissions because PGE did not take DEQ seriously. (15) • If DEQ includes a provision for flexibility on the basis of supply limitations, PGE should be given a hard deadline by which to order the control equipment. (15) • DEQ's BART proposal also cannot be considered an "extenuating circumstance" triggering the one year extension for installation of controls. (15) • Oregon's people and environment are suffering the ill effects of the delayed implementation of the BART controls. (15) • Delaying Hg control installation to coincide with the already late BART deadlines compounds those injuries. (15) • If the two rules are to be integrated, the SO2 timeline must be accelerated to match the July 1, 2012 deadline for installation of mercury controls. (15) • PGE may claim the expense of Hg controls is too much, but until they install the controls, Oregonians continue to bear the cost of health and environmental harm. (15) • DEQ should not allow PGE to shift its burden to Oregonians and their environment. (15)
Response	• *The existing UMR requires compliance in 2012, with a possible one year extension to 2013 if compliance could not be achieved by 2012 for reasons outside of PGE's control. DEQ is not recommending that the EQC change the compliance schedule at this time.* • *DEQ acknowledges the commenter's request that Hg controls be required on the Boardman plant as soon as possible, but notes that the most cost effective method of controlling Hg emissions at the Boardman plant would be to utilize the baghouse that is part of the SO2 control system.* • *Potential reasons for granting an extension include: Hg control system engineering delays caused by delays in the Regional Haze SIP rulemaking, because the Hg and SO2 control systems use the same baghouse system; and delays caused by multiple states requiring similar controls, which could delay construction. Until the Regional Haze SIP is adopted, it is unclear if the mercury compliance date will need to be adjusted. Therefore, any adjustment to the Hg control system compliance date will be made during the Regional Haze SIP rulemaking.* • *Mercury contamination in Oregon is a serious concern and DEQ is committed to addressing Oregon sources of mercury and reducing their emissions to the fullest extent and as early as practicable.*
11. Rule Sunset	• The Oregon program should be viewed as an interim program until a NESHAP can be developed for coal fired electric generating units. (16) • When a NESHAP is promulgated, the state standard should sunset so as to avoid conflicting standards. (16)
Response	• *Sunsetting the Utility Mercury Rule has the potential to have a negative impact. The NESHAP could be far less stringent than Oregon's Utility Mercury Rule and allow PGE to remove or scale back its mercury control system. The NESHAP proposed by EPA in 2004 contained mercury limits of 2.0 lbs/TBtu for bituminous coal and 5.8 lbs/TBtu for subbituminous coal, which are far less stringent than the Utility Mercury Rule which contains a mercury limit of 0.6 lbs/TBtu.*
12. Mercury Standards	• Reduce Hg emissions to the absolute minimum. (7) • DEQ's proposal fails to require the PGE Boardman facility to achieve an emission

	limitation that is already technologically achievable. (15) • Technology exists to control Hg emissions beyond the proposed 90% reduction. (15) • The EQC should adopt an emission limit of 0.2 lbs/TBtu which is feasible, tested, and legally required. (15) • The Boardman plant should be subject to both a control efficiency requirement and a corresponding emission limit. (7, 15) • Societal costs are too high to take partial measures. (7) • It is imperative that Boardman coal plant reduce its Hg emissions. (5) • DEQ has abrogated its responsibility to protect public health and the environment. (15)
Response	• *The UMR was adopted in 2006. At the time, the EQC evaluated available information and adopted a 90% control level. The current proposal does not change the 90% control requirement, but merely removes the provisions referring to the vacated CAMR rule.* • *DEQ acknowledges the commenter's request that Hg emissions from the Boardman plant be reduced by greater than 90% and to 0.2 pounds per trill, but such high levels of mercury control have not yet been demonstrated.* • *The mercury content of the coal used at the Boardman plant has varied from 5.0 lbs/TBtu in 2002 and 9.9 lbs/TBtu in 2005. To account for variability in the mercury content in the coal used at the Boardman plant, DEQ proposed and the EQC adopted standards that will require the Boardman plant to achieve 90% mercury control or 0.6 lbs/TBtu. In years in which the mercury content of the coal is high and 0.6 lbs/TBtu may or may not be achievable, the Boardman plant would be required to control mercury emissions by 90%. In years in which the mercury content of the coal is low and 90% mercury control may or may not be achievable, the Boardman plant would be required to reduce mercury emissions to 0.6 lbs/TBtu. Even if it is assumed that the Boardman plant will comply with the less stringent standard each year, the emissions would average 27 pounds per year. If it is assumed that the Boardman plant could achieve 90% mercury control and 0.6 lbs/TBtu, the emissions would average 22 pounds per year.* • *To achieve 0.2 lbs/TBtu, the Boardman plant would be required to meet a mercury control level of 98%, a level that has not been demonstrated on a long term basis.* • *The EQC adopted mercury control standards for the Boardman that are some of the most stringent in the country. DEQ has also entered into a Mutual Agreement and Order with Ash Grove Cement that will require them to capture 75 to 85% of its mercury emissions. These requirements will reduce mercury emissions in Oregon by 2,000 to 2,300 pounds per year.*
13. Mercury Emission Caps	• The proposed rule actually invites new coal-fired power plants to Oregon. (15) • Oregon should ensure no new coal-fired power plants are constructed in the State. (15) • The rule should reduce the Hg emissions cap by at least 35 pounds per year when the Boardman plant closes. (15) • Eliminate the Hg emissions cap as it was part of the vacated federal requirements. (16) • The Hg emissions cap could have unanticipated consequences in the future. (16) • The Boardman plant has never operated a Hg CEMs. (16) • The exact emission level of the plant is unclear. (16) • Eliminating the emission cap will not affect the Boardman plant's obligation to comply with the Hg limits, but will eliminate the possibility of the plant having to curtail operations to stay in compliance with the emissions cap. (16)

Response	• *The purpose of the Utility Mercury Rule is to reduce mercury emissions, not to invite or ban new coal-fired power plants in Oregon.* • *Though the federal requirement that Oregon have a cap on Hg emissions was vacated in early 2008, the proposed rules retain the 60 pounds-per-year Hg cap starting in 2018. Without the Hg emission cap, the UMR would still ensure that any new coal-fired power plants are well controlled, but would not limit the total amount of Hg emissions from all coal-fired power plants. Retaining the Hg emission cap maintains the original level of stringency in the UMR before CAMR was vacated.* • *It is true that the Boardman plant has not operated a Hg CEMS and that the exact plant emissions are unclear. However, based on extensive coal sampling and analysis done by EPA and data provided by the Boardman plant, DEQ is confident that the Boardman plant can meet a rolling 12-month Hg emission cap of 35 pounds per year and would not need to curtail operations.*
14. Economic Impact of Mercury Controls	• Previously, the Boardman plant had the ability to offset a portion of the cost of complying with the more stringent State standard by selling mercury allowances. (16) • The ability to offset cost was a key basis for requiring a higher standard. (16) • Now that the possibility of selling allowances has been eliminated, DEQ needs to assess the increased economic impact. (16)
Response	• *Under the original UMR, PGE could only sell credits from the date controls are installed (2012 or 2013) until 2017. Beginning in 2018, the rule prohibited trading. This means credits could only be sold for 4 or 5 years, and possibly less if the mercury provisions are delayed due to a delay in the SO2 requirements under the Regional Haze SIP. In addition, the rulemaking analysis identified the value of selling credits as a possible benefit to PGE; it was not a determining factor in setting the stringency of the rule.* • *The economic impact analysis assumed that the Boardman plant would be required to install a wet FGD for SO2 control, in which case a separate baghouse would need to be installed for mercury control. It appears now that a semi-dry scrubber will be installed for SO2 control, meaning that the baghouse that is part of the semi-dry scrubber will also be used for mercury control. This will result in substantial cost savings that will more than compensate for the lost ability to offset costs by selling mercury credits.*
15. Monitoring	• Hg CEMS are in a state of evolution as the technology evolves. (16) • Now that the federal rule has been vacated, the evolution of the performance specification is likely to stall at the federal level. (16) • The refinement of the performance specification will have to occur as plants learn how to work with the new technology. (16) • DEQ should incorporate the performance specification for Hg CEMS into the DEQ's continuous monitoring manual and not into the rule. (16) • This will provide more flexibility as DEQ and PGE operate on the forefront of this developing technology. (16) • OAR 340-228-0637(4)(b)(B)(ii) is not relevant to the Hg control rules. (16) • The references to SO2 CEMS in the same section of the rules should be deleted. (16)

Response	• *The federal CAMR included mercury emission monitoring requirements that were vacated when the courts vacated CAMR. DEQ is recommending that the EQC incorporate the vacated monitoring requirements into the UMR.* • *For other types of continuous monitoring, the continuous monitoring manual refers to EPA rules. Since there is no federal rule to refer to for mercury monitoring, the monitoring provisions need to be included in Oregon's rules.* • *References to SO2 CEMS relate to wet FGD systems that achieve high levels of mercury control. Wet FGD systems do not typically achieve high levels of mercury control for subbituminous coal. Therefore reference to SO2 CEMS and wet FGD systems will be removed from the rules, including from OAR 340-228-0637(4)(b)(B)(ii).*
Area Source NESHAPs/General Permits	
16. Gasoline Distribution NESHAP	• To adapt my trucks and bulk plant to bottom loading capabilities would be financially impossible. A conservative cost estimate would be $500,000. (4) • The federal standards for bulk plants place an extreme burden on bulk plants. (4) • One bulk plant may go out of business as a result of the new federal standards. (10)
Response	• *The Gasoline Distribution NESHAP is already required by federal law. DEQ has proposed to adopt this rule by reference so that Oregon can obtain delegation to implement the program.*
17. Area Source NESHAPs	• I oppose the adoption of the Area Source NESHAPs. (8) • Industry is already complying with the area source NESHAPs. (8) • DEQ's adoption of the rules is redundant, not an efficient use of DEQ's authority, and is a distraction from the important work that DEQ needs to focus on. (8) • Refrain from extending these federal regulations beyond their original intent. (8)
Response	• *DEQ acknowledges that some sources are already complying with the area source NESHAPs, but based on DEQ's initial outreach, most sources however do not even know about the area source NESHAPs.* • *It is more efficient for DEQ to implement the area source NESHAPs in Oregon as part of DEQ's overall air toxics program than for EPA to set up a separate and duplicative state system to implement some of the NESHAPs. In addition, most sources inform DEQ that they prefer to work with DEQ than directly with EPA because DEQ is able to provide more technical assistance and is more familiar with local conditions.* • *Adjustments to federal standards are necessary from time to time to address conditions and concerns specific to Oregon.*
18. Wood Preserving NESHAP	• EPA estimated it would cost affected facilities $200 to comply. DEQ expects affected facilities to have a permit, submit an annual report, and pay fees. This adds to the burden of complying with the NESHAP. (8)
Response	• *To receive the authority to implement the area source NESHAPs from EPA, DEQ is required to have the authority, the resources, and an implementation mechanism. If EPA were to directly implement the NESHAP, they would need resources and a comparable implementing mechanism.*
19. Wood Preserving General Permit	• The reporting requirements in the general permit for wood preserving sources do not have anything to do with the NESHAP. (8)

Response	• *The Wood Preserving NESHAP, unlike other NESHAPs, does not require annual reporting.* • *DEQ typically only inspects general permit sources once every five years. Annual reporting of emissions is needed to ensure that sources do not trigger a requirement and remain out of compliance with that requirement for an extended period of time.*
• *Gasoline Dispensing*	
20. Aviation Fueling	• Keep in mind the special characteristics of aviation fueling versus automotive fueling. (3) • Aviation refueling is subject to the equipment needs of small and large aircraft. (3) • We cannot unilaterally change the way aircraft are fueled. (3)
Response	• *The Gasoline Dispensing NESHAP exempts aviation fueling.* • *The Gasoline Dispensing NESHAP contains the following exemption: "The loading of aviation gasoline storage tanks at airports is not subject to this rule and aviation gasoline is not included in the gasoline throughput."*
21. Agricultural Exemption	• We disagree with the agricultural exemption from the Stage I requirement. (14) • Agricultural operations with higher throughputs are likely to be large operations and, therefore, quite capable of the economic outlay required to install the equipment. (14) • Agricultural workers are even more likely to be impacted by benzene exposure because pesticides are another significant source of benzene exposure. (14) • Large agricultural operations are not exempted from the requirements of the Clean Air Act, nor should they be exempted from the more stringent Oregon requirements. (14)
Response	• *DEQ does not have the authority to regulate agricultural operations except to carry out the Clean Air Act.* • *The proposed standards would require agricultural operations to comply with the Gasoline* Dispensing *NESHAP, if applicable. Agricultural operations however would be exempt from the requirements that go beyond the* Gasoline Dispensing *NESHAP. These additional requirements are not necessary to carry out the Clean Air Act.*
22. Timing of Topping Off Ban	• There is no reason to wait until 2011 for a top off ban. (11) • Delaying action unnecessarily increases benzene exposure for GDF employees, customers, and those living near a GDF. (11, 14) • Exposure is exacerbated by topping off. (11, 14) • The exposure level when filling a vehicle is 1 ppm, twice the OSHA action level. (14) • Increased benzene levels in breath have been observed 24 hours after fueling. (11, 14) • EPA says that no level of benzene exposure is safe. (11) • Ban topping off ban starting in 2009 or as soon as possible. (11, 14) • Compliance requires no economic expense and minimal effort; there is therefore no reason to delay its implementation by 2 years. (14) • GDF owners have already been alerted to the hazards of topping off and advised not to do so by DEQ. (14) • Multnomah and Lane counties have already implemented top off policies, showing that it can be done in short order. (14) • Many gas stations already only top off when a customer demands it. (14) • Topping off will likely increase the chance of dripping; each ounce of spilled gasoline emits the equivalent air pollution to a car being driven 56 miles. (14) • Topping off can overfill the tank resulting in evaporation of the fumes and increased

	ambient benzene levels near the gas station. (14) • Topping off can damage a vehicle's onboard vapor recovery system causing it not to work properly and causing the vehicle to run poorly and have higher emissions. (14) • Topping off can also damage the GDF's stage 2 vapor recovery system. (14) • As a result of topping off, some fuel remains inside the hose and spills out when the next customer fills up. The first customer pays for fuel that was not received. (14)
Response	• *The Gasoline Dispensing NESHAP requires that all GDFs minimize gasoline spills. DEQ is recommending that the EQC extend this requirement to include a ban on topping off of motor vehicle tanks.* • *DEQ agrees that a top off ban could and should happen sooner. However, DEQ believes a minimum six months of time is necessary to allow gasoline dispensing stations to comply with the ban. DEQ is changing the proposed date of the top off ban from January 10, 2011 to July 1, 2009.*
23. Case Against Lowering Stage 1 Vapor Control Threshold Below 100,000 Gallons	• A new federal requirement will bring the benzene content in Oregon gas to a level similar to the rest of the country. (10) • Most other states do not see a need to go beyond the federal requirements. (10) • Only Minneapolis and Florida are proposing to extend the stage 1 vapor control requirement to stations with monthly throughputs of less than 100,000 gallons. (10) • A number of other states already require Stage 1 vapor controls including Washington, Vermont, and Florida. (14) • Stage 1 vapor controls would cost the typical station $3,890 not including labor costs. With labor, the retrofits would cost the typical station between $5,000 and $6,000. (10) • This proposal is expensive and unnecessary. (10) • The economics don't add up. (10) • Smaller stations do not have the resources to install the equipment. (10) • A station with a monthly throughput of 20,000 gallons has a gross annual profit of $36,000 and a net annual profit of between $0 and $3,600. (10) • A station with a monthly throughput of 50,000 gallons has a gross annual profit of $90,000 and a net annual profit of around $9,000. (10) • Any gasoline savings will go to the terminals, not the individual station owners. (10) • In today's economy, adding another regulatory burden is unreasonable. (12, 13) • Over regulation and high fuel prices are removing incentives to stay in business. (4, 13) • Passing additional costs on to customers will simply reduce our overall sales. (4) • Regulation has driven equipment prices up. (13) • Oil companies are getting out of retail because there is no money in retail. (10, 13) • There is a huge difference between metro and rural Oregon. (4) • Rural stations will go out of business if required to install stage 1 vapor controls. (10) • For rural stations, this will be the difference between customers filling their tanks and just purchasing enough fuel to get to a bigger market where the price is lower. (13) • People will have to drive further to fill up, negatively impacting the environment. (10) • Rural customers are under tremendous pressure from high unemployment, increasing cost of groceries and consumer goods, and the high cost of gasoline. (4) • High oil and fuel product prices have brought the Oregon economy in rural areas to a screeching halt. Traffic is almost non-existent. Business is so slow that fuel stations are already closing due to low retail sales. (13)
Response	• *The NESHAP requires GDFs whose monthly throughput is 100,000 gallons or more to install stage 1 vapor controls. DEQ originally proposed that GDFs whose monthly*

	throughput is greater than 20,000 gallons per month also install stage 1 vapor controls. • *DEQ recognizes that the proposed rule will add costs for stations with throughput below the federal threshold, but is also concerned about health risks from exposure to benzene that will occur even after refiners are required to lower the benzene content of gasoline. Based on the comments, DEQ reviewed its analysis of costs and benefits and is now proposing to increase the threshold for vapor controls from the original proposal of 20,000 gallons per month to 480,000 gallons per year (equal to 40,000 gallons per month on average).This will ensure that GDFs with lower annual throughputs and revenue are exempted from the requirement to install stage 1 vapor controls. This will still ensure that GDFs with the greatest offsite impacts install stage 1 vapor controls.* • *The new federal requirement will require refiners to meet an average benzene content of 0.62% starting in 2011 and a maximum benzene content of 1.3% starting in 2012. EPA estimates that benzene levels in Oregon gasoline will drop from 1.75% to 0.85% in 2011 and from 0.85% to 0.65% in 2012. New federal requirements have and will continue to reduce benzene exposure in Oregon, but many areas of the state will still have benzene levels above a level deemed to be protective of public health. DEQ estimates show that GDFs with annual throughputs of greater than 480,000 gallons of gasoline will continue to pose offsite impacts that exceed a level that is protective of public health, even after full implementation of the new federal requirements.* • *The Gasoline Dispensing NESHAP was promulgated on January 10, 2008. States are in varying stages of implementing the NESHAP. It is still too early to determine which states and locals will go beyond the federal requirements.* • *The provided quote submitted by commenter (10) is not representative because it is for enhanced vapor recovery (EVR) equipment which would not be required under the proposed rules. DEQ has quotes from an equipment supplier for non-EVR that demonstrates that non-EVR equipment cost significantly less than EVR equipment.* • *According to DEQ's Underground Storage Tanks Program, approximately 60% of GDFs in Oregon already have stage 1 vapor controls. To further reduce benzene exposures in Oregon, DEQ is adding a requirement that any installed stage 1 vapor controls be operated and maintained, regardless of the throughput of the GDF.* • *To ensure that the rule remains at least as stringent as the federal NESHAP, DEQ is adding a stage 1 threshold of 100,000 per month to go along with the 480,000 gallon annual threshold.*
24. Case For Lowering Stage 1 Vapor Control Threshold Below 100,000 Gallons	• Significant numbers of Oregonians have a higher than average cancer risk from benzene exposure. (14) • Oregonians are also impacted by other pollutants contained in gasoline fumes. (14) • Cancer and non-cancer risks to Oregonians should be regarded as a grave threat. (14) • Oregon's children are at even greater risk, exemplified by higher rates of leukemia in children who live in close proximity to gas stations. (14) • Based on DEQ estimates, a person currently living 100 meters from a relatively small GDF without vapor control is exposed to levels above DEQ's health benchmark. (14) • DEQ estimates that, even if GDFs pass the cost of stage 1 vapor control equipment on to consumers, the burden would amount to a mere 0.3 cents per gallon. (14) • DEQ estimates the cost to retrofit 3 tanks is between \$1350 and \$4450 while OPA estimates it would cost \$6000. (14) • The corresponding monthly payments, amortized over the 15-year expected life of the

	tank at 7% interest, would be \$26.05 to \$66.57. (14) • This is a small price to pay for reduced benzene health risk. (14) • Payments would be even lower if no-interest loans are made available. (14) • We accept the decision to set the threshold at 20,000 gallons, as this will still bring the vast majority of GDFs within Oregon's benchmark for benzene. (14)
Response	• *The NESHAP requires GDFs whose monthly throughput is 100,000 gallons or more to install stage 1 vapor controls. DEQ originally proposed that GDFs whose monthly throughput is greater than 20,000 gallons per month also install stage 1 vapor controls.* • *DEQ acknowledges that Oregonians in many parts of the state are exposed to benzene and other pollutants above levels deemed to be protective of public health, but is also concerned about the economic hardship that the proposed rules would impose on small rural stations.* • *New DEQ estimates show that GDFs with monthly throughputs of greater than 40,000 gallons of gasoline will pose offsite impacts that exceed a level protective of public health, even after full implementation of the new federal requirements. Therefore, DEQ is revising its proposed stage 1 threshold from 20,000 gallons per month to an average monthly throughput of 40,000 gallons (480,000 gallons per year). DEQ has also made the proposed rules more stringent by starting the top off ban on July 1, 2009 and requiring any installed stage 1 vapor controls be operated and maintained.*
25. Timing of Stage 1 Vapor Controls	• Giving stations dispensing 20,000-40,000 gallons per month five years to install stage 1 vapor controls is far too long. (11, 14) • Require all gasoline stations to comply within 2 years, regardless of size. (11, 14) • Oregonians are unnecessarily exposed to a higher cancer risk because of Oregon's reluctance to take a leadership role. (11) • Why should Oregonians wait for relief when the solution is simple and the economic hardship to businesses and consumers so minimal? (14) • The potential health risks to workers and nearby neighbors are significant. (14) • By implementing the rules sooner, benzene risk will be minimized. (11) • The timetable leaves Oregonians with unnecessary, drawn-out exposures to high levels of benzene and other hazardous pollutants. (14) • The need to reduce benzene levels in Oregon is far too great to delay action. (14) • Florida gave GDFs 2 1/2 years to install the equipment. (14) • The timelines adopted by other states show that DEQ's lengthy implementation schedule lacks a sound technical or economic basis. (14)
Response	• *DEQ originally proposed that GDFs whose monthly throughput is 40,000 gallons per month or more install stage 1 vapor controls by no later than January 10, 2011; and GDFs whose monthly throughput is between 20,000 gallons and 40,000 gallons install stage 1 vapor controls by no later than January 10, 2014.* • *DEQ agrees that stage 1 vapor controls should happen sooner than January 10, 2014. DEQ however is revising the applicability threshold for stage 1 vapor controls from 20,000 gallons per month to an average of 40,000 gallons per month (480,000 gallons per year). The new proposal would require all GDFs with annual throughputs of 480,000 gallons of gasoline or more to install stage 1 vapor controls by January 10, 2011. The new proposal would also require the operation and maintenance of any installed stage 1 vapor controls.*
26. Effectiveness	• Stage 1 controls are not meant to control specific substances. (13)

of Stage 1 Vapor Controls	• Stating that stage 1 controls control specific substances when they don't, will increase the possibility of law suits against station operators. (13) • Effective benzene reduction must happen at the refinery level to be effective. (13) • California was forced to reformulate its gasoline after passage of the Clean Air Act. Benzene levels in the air dropped dramatically as a result. (13) • The only way to detect benzene in the air in Sprague River is to place the probe directly into the tanks of cars and trucks. (13)
Response	• *DEQ recognizes that stage 1 vapor controls provide varying levels of control for specific substances and that effective benzene reduction can happen at the refinery level, but is also concerned about health risks from exposure to benzene that will occur even after refiners are required to lower the benzene content of gasoline* • *Stage I vapor controls are meant to capture gasoline vapors that are displaced during the filling of storage tanks and return those vapors to the tanker truck. The vapors are then either burned or condensed at a bulk plant or bulk terminal. Gasoline vapors contain many volatile compounds including benzene.* • *Benzene reductions will be made at the refinery level and will have a major impact on the ambient benzene levels in Oregon. Ambient levels of benzene in Oregon will however still exceed Oregon's ambient benchmark for benzene. Additional reductions are needed to reduce levels of benzene in Oregon.*
27. Funding of Stage 1 Vapor Controls	• ExxonMobil will not pay for any of my equipment replacements. (13) • Why doesn't the state pay for retrofits for smaller stations? (10) • The state may be able to receive a bulk discount from the equipment suppliers. (10) • Minneapolis is paying for retrofits. (10) • The cost for stage I vapor controls could be obtained from the state in the form of no-interest loans. (11, 14) • Impose a small tax to the very profitable bulk terminals to fund vapor controls. (11, 14) • DEQ should rewrite the bulk plant permit to reflect that these plants are receiving vapor captured from stage 1 equipment and the corresponding savings. (14) • The amount of fuel recovered by condensing the vapor should be reported to DEQ and an appropriate fee added per gallon retrieved. (14) • The money could go to DEQ or the state's general fund, and then dispersed in the form of no-interest loans to small GDFs to offset compliance costs. (14) • There could be an extension of the deadline only if additional time is needed to implement the fees and no-interest loan program. (14)
Response	• *DEQ is looking for but has not yet identified any public funding sources to assist in the installation of stage I vapor controls. Though raising the threshold requiring controls would reduce the number of facilities that would need funding assistance, DEQ will continue to explore funding sources.* • *DEQ does not have the authority to charge a fee or a tax on recovered product. There also does not appear to be any funding available to pay for retrofits at smaller stations.*
28. Testing of Stage 1 Vapor Controls	• We have some concerns about waiving the testing requirements for GDFs with average monthly throughput of 20,000-100,000 gallons. (14) • The lower throughput GDFs may still need to be tested periodically over the life of the equipment if there is a significant likelihood of equipment malfunction. (14) • Perhaps the time between testing could be proportionally based on the total throughput of the GDF. (14)
Response	• *The NESHAP requires GDFs whose monthly throughput is 100,000 gallons or more to*

	test their stage 1 vapor controls when the controls are installed and every three years thereafter. DEQ is proposing that GDFs whose monthly throughput is between 40,000 gallons (480,000 gallons per year) and 100,000 gallons to test stage 1 vapor controls only when the controls are installed. • *With the current financial pressures affecting smaller GDFs, it would be a significant burden to require them to retest the tank every three years. Instead, smaller GDFs would be required to have stage 1 vapor controls inspected on an annual basis to discover potential or actual equipment failures.*
29. Moderate vs. High Volume	• I would like to know what is considered a "moderate or high volume" gasoline dispensing facility. (6)
Response	• *DEQ uses "high volume" to mean 100,000 gallons per month, which is the federal threshold for stage I vapor controls, and moderate volume facilities to mean 20,000 to 100,000 gallons per month.*
30. Stage 2 Vapor Recovery	• I purchased used fuel dispensers in California with stage 2 controls at reasonable prices. Not everyone did or was able to. (13)
Response	• *This rulemaking does not propose any new stage 2 control requirements. Stage 2 controls are currently required in Clackamas, Multnomah, and Washington Counties at GDFs whose annual throughput exceed 600,000 gallons. At some point in the future, onboard vapor recovery will make stage 2 controls obsolete.*

List of People Submitting Comments (by Commenter Number)			
Number	**Name**	**Organization**	**Submit date**
1	Jeanne Henderson		07/16/2008
2	Lisanne Pearcy, PhD		07/28/2008
3	Brent DeHart	Salem Aviation Fueling	07/17/2008
4	Greg Jackson	Jackson Oil	07/24/2008
5	Mitch Gilbert		08/12/2008
6	Bill Dean	River Point Farms	08/15/2008
7	Maye Thompson, RN, PhD	Oregon Physicians for Social Responsibility	08/18/2008
8	David Qualman	Conrad Forest Products	08/19/2008
9	Bob Edwards		08/21/2008
10	Paul Romaine	Oregon Petroleum Association	08/21/2008
11	John Tarantino		08/24/2008
12	Sandra Gaylord	Carson Oil	08/25/2008
13	Thomas A Darling		08/26/2008
14	Lisa Arkin/Dona Hippert	Oregon Toxics Alliance	08/26/2008
15	Aubrey Baldwin	Pacific Environmental Advocacy Center	08/26/2008
16	Arya Behbehani-Divers	Portland General Electric	08/26/2008
17	Russel B Johnson	Covanta Marion	08/26/2008
18	John Ledger/Kristan Mitchell	Associated Oregon Industries/Oregon Refuse & Recycling Association	08/26/2008

State of Oregon

Department of Environmental Quality
Memorandum

Date: August 25, 2008

To: Environmental Quality Commission

From: Mark Fisher, Eastern Region, Bend Office

Subject: Presiding Officer's Report for Rulemaking Hearing

Hearing Date and Time:	August 18, 2008, beginning at 6:00 p.m.
Hearing Location:	DEQ - Bend Regional Office Conference Room 300 SE Reed Market Road Bend, OR 97702

Title of Proposal: Adoption of Federal Air Quality Regulations

DEQ convened the rulemaking hearing at 6:00 pm and closed it at 6:30 pm. Jerry Ebersole was prepared to briefly explain the rulemaking proposal.

No one attended the hearing; no one testified.

No written or oral comments were received at the hearing.

State of Oregon

Department of Environmental Quality
Memorandum

Date: August 25, 2008

To: Environmental Quality Commission

From: Byron Peterson, Western Region, Medford Office

Subject: Presiding Officer's Report for Rulemaking Hearing

Hearing Date and Time:	August 19, 2008, beginning at 6:00 p.m.
Hearing Location:	Community Justice Center First Floor Conference Room 1101 W Main, Suite 101 Medford, OR 97501

Title of Proposal: Adoption of Federal Air Quality Regulations

DEQ convened the rulemaking hearing at 6:00 pm and closed it at 6:30 pm. Jerry Ebersole was prepared to briefly explain the rulemaking proposal.

No one attended the hearing; no one testified.

No written or oral comments were received at the hearing.

State of Oregon

Department of Environmental Quality Memorandum

Date: August 25, 2008

To: Environmental Quality Commission

From: William Knight, Office of Communications and Outreach

Subject: Presiding Officer's Report for Rulemaking Hearing

Hearing Date and Time:	August 21, 2008, beginning at 6:00 p.m.
Hearing Location:	DEQ Headquarters, EQCA 811 S.W. Sixth Avenue Portland

Title of Proposal: Adoption of Federal Air Quality Regulations

At 6:00 pm, with two people in attendance, we began the hearing after a brief presentation by Jerry Ebersole, lead rule writer, followed by an informal question and answer session.

I convened the hearing at 6:15 p.m. I informed people that my role was to take oral comments on behalf of the Environmental Quality Commission and noted that comments made during the information session would not be part of the record unless also made at this time.

I informed the audience that DEQ would evaluate all comments received, both oral and written, and that DEQ would provide responses to the comments in the formal rulemaking package. I reminded attendees that the formal public comment period would end at 5:00 pm on August 26, 2008, and that written comments must be received by DEQ prior to that time on that date.

Summary of Oral Testimony

One individual provided oral comments; the other said that she intended to submit written comments.

Paul Romaine, Oregon Petroleum Association
Romaine is concerned about DEQ’s proposed extension of the stage 1 vapor control requirement to stations with monthly throughput of less than 100,000 gallons. He is not concerned about larger stations because most of them already have stage 1 vapor controls.

Romaine argued that extending the stage 1 vapor control requirement to small stations is not supported by the cost-benefit analysis Romaine agrees that Oregon gasoline has a high level of benzene when compared to the rest of the country. He stated that a new federal requirement will bring the benzene content in Oregon gasoline to a level similar to the rest of the country, and argued that there is really no difference between Oregon and the rest of the country. He stated that only Minneapolis and Florida are proposing to extend the stage 1 vapor control requirement to stations with monthly throughput of less than 100,000 gallons and that Minneapolis is actually paying for those retrofits.

Romaine provided a quote for stage 1 vapor control retrofits on 2 gasoline tanks and 1 diesel tank at a station in Pendleton. He stated that stage 1 vapor controls would cost the station $3,890 not including labor costs, and stated that with labor, the retrofits would cost the station between $5,000 and $6,000.

Romaine also argued that the economics don't add up. He stated that oil companies are getting out of the retail business because there is no money in retail Romaine stated that a station with a monthly throughput of 20,000 gallons has a gross annual profit of $36,000 and a net annual profit of between $0 and $3,600. He also stated that a station with a monthly throughput of 50,000 gallons has a gross annual profit of $90,000 and a net annual profit of around $9,000, and said that many of these small stations are in rural Oregon and that most rural stations will go out of business if required to install stage 1 vapor controls. Romaine argued that people will be required to drive further to fill up, which will have negative environmental impacts. For this reason, he asked that the DEQ not go beyond the federal threshold.

Romaine noted that any gasoline savings will go to the terminals, not the individual station owners, and that most bulk terminals don't have systems to recover the gasoline and instead will flare off the gasoline vapors. He suggested that the state could pay for retrofits for smaller stations and receive a bulk discount from the equipment suppliers.

Romaine added that the federal standards for bulk plants place an extreme burden on affected bulk plants. He spoke of one bulk plant owner whot will be required to spend $20,000 to $30,000 to retrofit his tanks, and as a result may go out of business. He acknowledged that the DEQ would not be able to adopt standards less stringent than the federal standards.

There was no further testimony. The hearing closed at 6:30 p.m.

DEPARTMENT OF ENVIRONMENTAL QUALITY
Chapter 340
Proposed Rulemaking
STATEMENT OF NEED AND FISCAL AND ECONOMIC IMPACT

This form accompanies a Notice of Proposed Rulemaking

Title of Proposed Rulemaking	**Adoption of Federal Air Quality Regulations** **<u>Adopt OARs</u>**: 340-228-0601, **Applicability** 340-228-0609, **General Requirements** 340-228-0611, **Additional Requirements to Provide Heat Input Data** 340-228-0613, **Monitoring of Hg Mass Emissions and Heat Input at the Unit Level** 340-228-0615, **Monitoring of Hg Mass Emissions and Heat Input at Common and Multiple Stacks** 340-228-0617, **Special Provisions for Measuring Hg Mass Emissions using the Sorbent Trap Monitoring Methodology** 340-228-0619, **Procedures for Hg Mass Emissions** 340-228-0621, **Initial Certification and Recertification Procedures** 340-228-0623, **Quality Assurance and Quality Control Requirements** 340-228-0625, **Specifications and Test Procedures for Total Vapor Phase Mercury CEMS** 340-228-0627, **Quality Assurance and Operating Procedures for Sorbent Trap Monitoring Systems** 340-228-0629, **Out of Control Periods and Adjustment for System Bias** 340-228-0631, **Standard Missing Data Procedures for Hg CEMS** 340-228-0633, **Missing Data Procedures for Sorbent Trap Monitoring Systems** 340-228-0635, **Recordkeeping** 340-228-0637, **Reporting** 340-228 Table 1, **Missing Data Procedures for Hg CEMS** 340-228 Table 2, **Quality Assurance/Quality Control Criteria for Sorbent Trap Monitoring Systems** 340-230-0335, **Standards for Municipal Waste Combustor Fugitive Ash Emissions** 340-230-0359, **Compliance Schedule** 340-244-0232 – 0252, **Emission Standards for Gasoline Dispensing Facilities** 340-244-0242 Table 4, **Management Practices for Gasoline Dispensing Facilities Subject to Stage I Vapor Controls** 340-244-0242 Table 4, **Management Practices for Gasoline Cargo Tanks Unloading at Gasoline Dispensing Facilities Equipped with Stage I Vapor Controls** **<u>Amend OARs</u>**: 340-200-0040, **State of Oregon Clean Air Act Implementation Plan** 340-216-0060, **General Air Contaminant Discharge Permits** 340-216-0020 Table 1 340-216-0020 Table 2 340-228-0600, **Purpose** 340-228-0602, **Definitions** 340-228-0603, **Measurements, Abbreviations, and Acronyms** 340-228-0606, **Hg Emission Standards** 340-230-0300 – 0330, **Municipal Waste Combustors** 340-230-0340 – 0350, **Municipal Waste Combustors** 340-238-0040 – **Definitions** 340-238-0060 – **Federal Regulations Adopted by Reference** 340-238-0090, **Delegation** 340-242-0520, **General Provisions** 340-244-0020 – 0030, **General Provisions for Stationary Sources** 340-244-0100, **Compliance Extensions for Early Reductions** 340-244-0210 – 0220, **Emissions Standards**

	<u>Delete OARs</u>: 340-228-0604, **Applicability** 340-228-0605, **Retired Unit Exemption** 340-228-0608, **Computation of Time** 340-228-0610, **Appeal Procedures** 340-228-0612, **Authorization and Responsibilities of Hg Designated Representative** 340-228-0614, **Alternative Hg Designated Representative** 340-228-0616, **Changing Hg Designated Representative and Alternative Hg Designated Representatives; Changes in Owners and Operators** 340-228-0618, **Certificate of Representation** 340-228-0620, **Objections Concerning Hg Designated Representatives** 340-228-0622, **General Hg Budget Trading Program Permit Requirements** 340-228-0624, **Submission of Hg Budget Permit Applications** 340-228-0626, **Information Requirements for Hg Budget Permit Applications** 340-228-0628, **Hg Budget Permit Contents and Term** 340-228-0630, **Hg Budget Permit Revisions** 340-228-0632, **State Trading Budget** 340-228-0634, **Timing Requirements for Hg Allowance Allocations** 340-228-0636, **Hg Allowance Allocations** 340-228-0638, **Establishment of Accounts** 340-228-0640 – 0678, **Utility Mercury Rule** 340-232-0070, **Gasoline Dispensing Facilities** 340-238-0050, **General Provisions** 340-244-0110 – 0180, **Compliance Extensions for Early Reductions**
Statutory Authority or other Legal Authority	ORS 468.020 & 468A.310
Statutes Implemented	ORS 468A.025
Need for the Rule(s)	This rulemaking is needed to ensure the maintenance of Oregon's NESHAP and NSPS program delegations and emission guideline plan approvals from EPA, to respond to court decisions, and to protect public health. Adopting the new and amended NSPS and NESHAP standards will make Oregon's rules consistent with EPA's so that the Department can implement and keep its delegation of these regulations, which benefits industrial sources and the public. Benefits to sources include quicker approval of applicability determination requests and alternative testing, monitoring, recordkeeping and reporting requests. Benefits to the public include allowing the Department to ensure that the required emission reductions are achieved in Oregon.
Documents Relied Upon for Rulemaking	DEQ relied primarily on the Federal Register, the Code of Federal Regulations, and the Oregon Revised Statues, in developing this rulemaking proposal. Copies of the documents relied upon in the development of this rulemaking proposal can be reviewed at the Department of Environmental Quality's office at 811 S.W. 6th Avenue, Portland, Oregon. Please contact Jerry Ebersole for times when the documents are available for review.
Requests for Other Options	**Pursuant to ORS 183.335(2)(b)(G), DEQ requests public comment on whether other options should be considered for achieving the rule's substantive goals while reducing negative economic impact of the rule on business.**
Fiscal and Economic Impact, Statement of Cost Compliance	
Overview	The rules proposed by DEQ consist of several parts: adoption by reference of new area source NESHAPs, adoption of new General Permits to implement the new area source NESHAPs, adoption of standards that implement and go beyond the federal Gasoline Dispensing NESHAP, adoption of standards that implement and go beyond the Emission Guidelines for municipal waste combustors, amendments to the Utility Mercury Rule to address the court vacated mercury cap-and-trade program, and the adoption of other federal air quality regulations. This discussion of the estimated fiscal and economic impacts depends significantly on

	assumptions made by DEQ that are listed separately below in the section titled "Assumptions." <u>Gasoline Dispensing Facilities (GDF):</u> This rulemaking proposes to require stage I vapor control at moderate and high volume facilities. This would be accomplished by reducing the federal volume trigger for stage I vapor controls from 100,000 gallons per month to 20,000 gallons per month phased-in over a six year period. GDFs currently required to have stage I vapor controls would continue to be required to have stage 1 vapor controls. New and reconstructed GDFs with a monthly throughput of 100,000 gallons or more would be required to have stage I vapor controls upon startup. New and reconstructed GDFs with an average monthly throughput between 20,000 and 100,000 gallons would be required to have stage I vapor controls by December 13, 2009 or upon startup, whichever is later. Existing GDFs with an average monthly throughput of 100,000 gallons or more would be required to have stage I vapor controls by January 10, 2011, as required in the Gasoline Dispensing NESHAP. Existing GDFs with an average monthly throughput between 40,000 and 100,000 gallons would also be required to have stage I vapor controls by January 10, 2011. Existing GDFs with an average monthly throughput between 20,000 and 40,000 gallons would be required to have stage I vapor controls by January 10, 2014. It is estimated that Oregon has between 2,900 and 3,200 GDFs. It is estimated that 620 facilities in Oregon are currently required to have stage I vapor controls. The federal NESHAP will reduce benzene emissions caused by the filling of gasoline storage and dispensing tanks in Oregon by an estimated 12 tons per year (32%) and VOC emissions by an estimated 680 tons per year (32%), as well as save an estimated 221,000 gallons of gasoline per year (0.016%) statewide. By going beyond the NESHAP, this rulemaking would additionally reduce stage I benzene emissions in Oregon by an estimated 16 tons per year (44%) and VOC emissions by an estimated 930 tons per year (44%), and save an estimated 303,000 gallons of gasoline per year (0.021%) statewide. Combined, the federal NESHAP and the proposed statewide stage I vapor control requirement would reduce stage I benzene emissions in Oregon by an estimated 28 tons per year (76%) and VOC emissions by an estimated 1,610 tons per year (76%), and save an estimated 524,000 gallons of gasoline per year (0.037%) statewide. The proposed statewide stage I vapor control requirement would directly impact GDFs, many which are small businesses, and indirectly impact the general public if individual GDF owners pass on the cost of stage I vapor controls. If the gasoline terminals or bulk plants saving money from this rule were to pass on their savings to the GDF, it could offset the cost increases and lower the likelihood of changes in gasoline prices in Oregon due to this rule. However, members of the industry informed DEQ that it is unlikely that the gasoline savings will be passed on from the terminal or bulk plant to the individual GDF owners. <u>Large Municipal Waste Combustors:</u> Oregon has one large municipal waste combustor, owned and operated by Covanta, and located in Brooks. Covanta is outperforming the newly tightened Emission Guidelines by a wide margin for dioxins/furans, cadmium, and lead. This rulemaking proposes to adopt standards that go beyond the federal Emission Guidelines for these pollutants. DEQ anticipates no negative fiscal and economic impacts as a result of these proposed standards because annual testing over the past ten years has demonstrated that Covanta is meeting the proposed standards on a continual basis. <u>General Permits:</u> The proposed adoption of the new federal area source NESHAPs would trigger the requirement for affected source to have a Simple ACDP. To minimize the fiscal impact on affected sources, many of which are small businesses, this rulemaking proposes the adoption of several new General ACDPs. To further minimize the fiscal impacts on affected sources, this rulemaking proposes to add two new lower-cost General ACDP categories for sources with limited requirements and where existing Department resources can be leveraged to reduce the cost needed to implement the new standards.

	Utility Mercury Rule: On February 8, 2008, the D.C. Circuit Court vacated the federal utility mercury trading program. In response, this rulemaking proposes to remove references to the vacated federal trading rule but to retain the 90% control requirement and the State cap on mercury emissions. This rulemaking also proposed to insert monitoring requirements that were also vacated. The removal of the trading portions of the Utility Mercury Rule (UMR) would not have a negative fiscal or economic impact because the ability to buy and sell mercury credits ended when the D.C. Circuit Court vacated utility mercury trading program. The addition of the monitoring requirements would not have a negative fiscal or economic impact because the monitoring requirements were formerly referenced in the UMR. Other Federal Air Quality Regulations: DEQ is proposing to match changes in federal law by (1) adopting by reference 17 new federal NESHAPs applicable to non-major or area sources including: hospital sterilizers; steelmaking facilities; iron and steel foundries; gasoline terminals, bulk plants, and pipeline facilities; gasoline dispensing facilities; polyvinyl chloride and copolymers production; copper smelting; nonferrous metals production and processing; acrylic and modacrylic fibers production; carbon black production; chromium compounds production; flexible polyurethane foam fabrication and production; lead acid battery manufacturing; wood preserving; clay ceramics manufacturing; and glass manufacturing, (2) adopting five new federal NSPSs applicable to: synthetic organic chemical manufacturing, petroleum refineries, stationary internal combustion engines, and stationary combustion turbines, (3) updating DEQ's adoptions by reference of federal NESHAPs and NSPSs, and (4) removing the Boiler and Process Heater NESHAP recently vacated by the courts. DEQ anticipates that there will be no negative fiscal and economic impacts as a result of these proposed rules because any negative fiscal and economic impacts occurred when the EPA adopted the rules, and because the rules applied in Oregon upon EPA's adoption. Therefore, if the EQC adopts the proposed rules listed above, which are substantively identical to their federal counterparts, there will be no substantive change to the requirements already applicable in Oregon today. EPA has evaluated the fiscal and economic effects of their rules and lists those effects in the preambles to their regulations. A list of the federal NESHAP and NSPS rules can be found in Attachments E and F, and the EPA regulations themselves can be found by going to EPA's website http://www.epa.gov/ttn/atw/eparules.html.
Impacts on the General Public	Direct Impacts: DEQ does not anticipate any direct fiscal or economic impacts from this proposed rulemaking on the general public. Indirect Impacts: • Gasoline Dispensing Facilities. DEQ estimates that its proposal may indirectly impact the general public if individual GDF owners pass on the cost of stage I vapor controls (estimated at less than $0.003/gallon). If the gasoline terminals or bulk plants saving money from this rule were to pass on their savings to the GDF, it could offset the cost increases and lower the likelihood of changes in gasoline prices in Oregon due to this rule. However, members of the industry informed DEQ that it is unlikely that the gasoline savings will be passed on from the terminal or bulk plant to the individual GDF owners. • General Permits. The requirement that sources affected by a new federal area source NESHAPs obtain an ACDP permit could indirectly impact the general public if the permit fees are passed on in the form of higher prices for goods and services. • Public Health Benefits. Air pollution creates public health problems that can have negative economic impacts. DEQ anticipates that the proposed rule will reduce air pollution, and as a result, may benefit public health and welfare. It may also reduce public health costs associated with air pollution.
Impacts to Small Business (50 or fewer employees – ORS183.310(10))	Direct Impacts: • Gasoline Dispensing Facilities. The proposed statewide stage I vapor control requirement would directly impact GDFs, many which are small businesses. The cost to retrofit an existing tank with stage I vapor controls is estimated to be between $450 and $1,150. The cost to include stage I vapor controls on a new tank is approximately $350. DEQ estimates that going beyond the federal Gasoline Dispensing NESHAP would cost $570,000 per year

	statewide for all small and large businesses, local governments and agencies that operate GDFs. However, going beyond the federal Gasoline Dispensing NESHAP will save an estimated $1,300,000 per year worth of gasoline. Since the saved gasoline will be recovered at the bulk terminal or bulk plant, the fuel cost savings would not directly benefit facility owners. DEQ estimates the proposed rules would result in an annual expense to facility owners of between $0.001/gallon and $0.003/gallon, with the biggest impact on owners of smaller facilities. • General Permits. The proposed adoption of the new federal area source NESHAPs would directly impact sources, many which are small businesses, because it would trigger the requirement for affected sources to have a Simple or Standard ACDP. To minimize the fiscal impact on affected sources, this rulemaking proposes the adoption of several new General ACDPs. To further minimize the fiscal impacts on affected sources, this rulemaking proposes to add new lower-cost General ACDP categories for sources with limited requirements and where existing Department resources can be leveraged to reduce the cost needed to implement the standards. The proposed cost of these new General ACDPs is $120/year and $360/year. Currently the lowest cost General ACDP is $720/year. The proposed adoption of new General ACDPs would save sources affected by the new federal area source NESHAPs between $3,120 (81%) and $3,720 (97%) per year versus the requirement to have a Simple ACDP, which costs $3,840/year. In addition, this rulemaking proposes to delay the permitting requirement for GDFs until January of 2010. Delayed permitting will allow station owners to apply one year worth of permitting fees to the installation of a vapor balance system(s). Indirect Impacts: • Gasoline Dispensing Facilities. DEQ estimates that its proposal may indirectly impact the small businesses if individual GDF owners pass on the cost of stage I vapor controls (estimated at less than $0.003/gallon). If the gasoline terminals or bulk plants saving money from this rule were to pass on their savings to the GDF, it could offset the cost increases and lower the likelihood of changes in gasoline prices in Oregon due to this rule. However, members of the industry informed DEQ that it is unlikely that the gasoline savings will be passed on from the terminal or bulk plant to the individual GDF owners. • General Permits. The requirement that sources affected by a new federal area source NESHAPs obtain an ACDP permit could indirectly impact small businesses if the permit fees are passed on in the form of higher prices for goods and services.	
Cost of Compliance on Small Business (50 or fewer employees – ORS183.310(10))	a) Estimated number of small businesses subject to the proposed rule	Gasoline Dispensing Facilities DEQ estimates that Oregon has between 2,900 and 3,200 GDFs. It is estimated that of these 620 facilities in Oregon are currently required to have stage I vapor controls. General Permits DEQ estimates that 2,300 small businesses in Oregon are potentially affected by the new area source NESHAPs and/or the requirement to have a General ACDP.
	b) Types of businesses and industries with small businesses subject to the proposed rule	Gasoline Dispensing Facilities A GDF is any stationary facility which dispenses gasoline into the fuel tank of a motor vehicle. General Permits The 2,300 small businesses are in the following industries: clay ceramic manufacturing (13); flexible polyurethane foam fabrication and manufacturing (1); glass manufacturing (32); gasoline dispensing (2,200), hospital sterilization (4); iron and steel foundries (19); lead acid battery manufacturing (4); secondary nonferrous metals: (5); polyvinyl chloride production (13); and wood preserving (3).
	c) Projected reporting, recordkeeping and other administrative activities required by small businesses for compliance with the proposed rule,	Gasoline Dispensing Facilities: The proposed stage I vapor control requirement would trigger testing, recordkeeping, and reporting requirements for facilities that would not otherwise be required to meet these requirements under the federal Gasoline Dispensing NESHAP. These requirements include leak-rate, cracking pressure and static pressure testing.

	including costs of professional services	General Permits: The new General ACDPs will not contain reporting, recordkeeping and other administrative activities other than those already required by the new federal rules. EPA has evaluated the fiscal and economic effects of their rules and lists those effects in the preambles to their regulations. A list of the federal rules can be found in Attachments E and F, and the EPA regulations themselves can be found by going to EPA's website http://www.epa.gov/ttn/atw/eparules.html.
	d) The equipment, supplies, labor, and increased administration required by small businesses for compliance with the proposed rule	Gasoline Dispensing Facilities: The cost to retrofit an existing tank with stage I vapor controls is estimated to be between $450 and $1,150. The proposed rule would require initial testing of the stage I vapor controls. The cost to test stage I vapor controls is estimated to be $233 per tank. Many of these facilities have 3 tanks. The cost to retrofit and test 3 tanks is estimated to be between $2,049 and $4,149. The cost to operate and maintain stage I vapor controls for 3 tanks, and to maintain records, is estimated to be between $310 and $545 per year. General Permits: The new General ACDPs will ensure compliance with the new federal rules. EPA has evaluated the fiscal and economic effects of their rules and lists those effects in the preambles to their regulations. A list of the federal rules can be found in Attachments E and F, and the EPA regulations themselves can be found by going to EPA's website http://www.epa.gov/ttn/atw/eparules.html.
	e) A description of the manner in which the Department involved small businesses in the development of this rulemaking	Gasoline Dispensing Facilities: DEQ is involving small businesses affected by the proposal to go beyond the Gasoline Dispensing NESHAP through one on one discussion, industry associations, and public meetings. The Small Business Compliance Advisory Panel may also track and advise DEQ on the proposed rules. Industry associations involved in this rulemaking include the Oregon Petroleum Association and the Western States Petroleum Association. General Permits: The Small Business Compliance Advisory Panel has tracked and advised DEQ on the requirement and development of General ACDPs.
Impacts on Large Business (all businesses that are not "small businesses" under ORS183.310(10))	The fiscal and economic impacts on large businesses that operate GDFs are expected to be the same as those estimated for small businesses.	
Impacts on Local Government	The fiscal and economic impacts on local government that operate GDFs are expected to be the same as those estimated for small businesses.	
Impacts on State Agencies other than the Department	The fiscal and economic impacts on State Agencies that operate GDFs other than the Department are expected to be the same as those estimated for small businesses.	
Impacts on the Department	To implement the new Area Source NESHAPs, the Department is requesting nine new positions (6 FTE) for consideration by the Governor and 2009 Legislature. The positions will be phased-in in line with NESHAP implementation. Eight of the positions will provide technical assistance to sources and work on permitting activities. One half-time position will be added to DEQ's Office of Compliance and Enforcement staff to issue formal enforcement actions against violators. Where ever possible the Department is working to maximize implementation efficiencies. For the gasoline dispensing regulation, DEQ Underground Storage Tanks Program inspectors are already inspecting gas stations. They will add the new NESHAP requirements on to their existing inspection activities and save personnel and travel costs. This innovative approach will minimize the additional revenue DEQ will need to implement the new federal gasoline	

	dispensing regulation in Oregon. The cost of the new positions will be funded by revenue generated by the new General Permits. The remaining cost impacts on the Department are expected to be the same as those estimated for small businesses.
Assumptions	Gasoline Dispensing Facilities: Assumptions to estimate the impact of the proposal to go beyond the Gasoline Dispensing NESHAP are as follows: • The cost to retrofit an existing tank with stage I vapor controls is estimated to be between $450 and $1,150. (Source: equipment vendor) • The cost to include stage I vapor controls on a new tank is approximately $350. (Source: equipment vendor) • The cost of the retrofits will be financed over the 15-year life of a gasoline storage tank at an interest rate of 7%. (Source: October 2, 2007 memo to Steve Shedd of EPA)) • The cost to perform testing on stage I vapor controls is estimated to be $700 for the average GDF. (Source: October 2, 2007 memo to Steve Shedd of EPA) • The cost to perform annual inspection and maintenance of stage I vapor controls is estimated to be $200 for the average GDF. (Source: DEQ estimate) • The recordkeeping and reporting costs for stage I vapor control is estimated to be $110 per year for the average GDF. (Source: October 2, 2007 memo to Steve Shedd of EPA) • The average GDF has 3 gasoline storage tanks. (Source: DEQ assumption) • The average cost of a gallon of regular unleaded gasoline in Oregon is $4.292 (June 30, 2008). (Source: AAA) • Stage I vapor controls reduce gasoline emissions by 4.7 pounds of VOC per thousand gallons of gasoline loaded. (Source: AP-42) • Stage I vapor controls reduce gasoline emissions by 0.083 pounds of benzene per thousand gallons of gasoline loaded. (Source: AP-42) • Oregon, excluding Lane County has between 2,900 and 3,200 GDFs. (Source: DEQ's Underground Storage Tank Program, Oregon Department of Agriculture, and Oregon State Fire Marshal) • 620 GDFs facilities in Oregon are currently required to have stage I vapor controls. (Source: DEQ Northwest Region Office) • Of the remaining 2,280 to 2,580 GDFs, 240 will be required to install stage I vapor controls under the federal NESHAP and 748 would be required to install stage I vapor controls if the proposed statewide stage I vapor control requirement is adopted. (Source: infoUSA and extrapolation to number of GDFs)
Housing Costs	Gasoline Dispensing Facilities: DEQ has determined that the proposed rulemaking may have a negative effect, in the form of slightly higher gasoline prices, on the cost of development of a 6,000 square foot parcel and the construction of a 1,200 square foot detached single family dwelling on that parcel. The possible impact appears to be minimal because DEQ has estimated the maximum possible increased cost of gasoline at $0.0034/gallon. DEQ cannot quantify this impact at this time because the information available to it does not indicate whether the fee increases would be passed on to consumers and any such estimate would be speculative. A minimal amount of gasoline is needed to construct a house and DEQ did not find information on the cost of gasoline to develop a parcel. DEQ notes that the increased gasoline cost could be mitigated by the fuel savings that would result from the statewide implementation of stage I vapor controls. General Permits: DEQ has determined that the proposed fee increases may have a negative impact on the development of a 6,000 square foot parcel and the construction of a 1,200 square foot detached single family dwelling on that parcel if the permitting fees are passed through by permit holders providing products and services for such development and construction. The possible impact appears to be minimal. DEQ cannot quantify this impact at this time because the information available to it does not indicate whether the fee increases would be passed on to consumers and any such estimate would be speculative. Other Federal Air Quality Regulations: DEQ estimates that the "other federal air quality regulations" would not significantly effect the

	development of a 6,000 square foot parcel or the construction of a 1,200 square foot detached single family dwelling on that parcel.
Administrative Rule Advisory Committee	The standing Small Business Compliance Advisory Committee has been and will be utilized during this rulemaking. The purpose of addressing this committee is to present DEQ's implementation strategy for the new area source NESHAPs and receive the committee's input and/or recommendations. DEQ has and will meet with business associations in regard to the proposal to go beyond the Gasoline Dispensing NESHAP. DEQ also convened a Fiscal Impact Advisory Committee prior to the public comment period. Some members of the Fiscal Impact Advisory Committee believe that the draft proposed rules as proposed to the Committee would impose a significant adverse impact on small businesses. As a result, DEQ solicited recommendations on how the fiscal impacts on small businesses could be mitigated. Members of the Committee suggested various options on how impacts could be mitigated, including the following: • Increase the draft rule's regulatory Stage I threshold to a level above 10,000 gallons per month. • Adopt only the federal Gasoline Dispensing NESHAP • Establish an emergency or hardship, or small business exemption for facilities that would be forced out of business or heavily burdened by the regulations. Criteria could also include number of employees, throughput, revenue, location, population density and nature of the business. • Provide financial assistance to facilities with significant fiscal impacts. • Research whether the Business Energy Tax Credit could apply. • Shift costs to terminals and bulk plants by altering DEQ's fee structure to recoup benefit from fuel savings. After considering each recommendation and the public health and safety purpose of the rule, the Department revised the draft rules, considered by the Committee by: • Raising the volume trigger for stage I vapor controls from 10,000 gallons per month to 20,000 gallons per month; and • Providing existing dispensing facilities, with monthly throughputs below 40,000 gallons per month, an additional three years to install stage I vapor controls. DEQ did not select the recommendation to adopt only the federal Gasoline Dispensing NESHAP because it does not meet the public health purpose of the proposal considering that benzene levels are higher in Oregon than other states and far exceed health benchmarks. The recommendation to develop emergency or hardship exemptions based on a number of factors was not selected because of its complexity and potential to create significant administrative burdens, and because the proposed changes to the trigger volume and compliance schedule will reduce the potential hardship. DEQ will further investigate if alternative financial assistance for facilities is available and whether the Business Energy Tax Credit could apply. These recommendations do not require changes to the proposal. Finally, DEQ did not select the recommendation to shift the fee burden to other sources because the original proposal already modified the fee schedule by creating two new general permit categories for GDFs that have fees significantly lower than other AQ permitted sources.

Gerald C. Ebersole
Prepared by

Gerald C. Ebersole
Printed name

July 10, 2008
Date

J R Roys
Approved by DEQ Budget Office

James Roys
Printed name

7/10/2008
Date

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

Relationship to Federal Requirements

Adoption of Federal Air Quality Regulations

Answers to the following questions identify how the proposed rulemaking relates to federal requirements and potential justification for differing from, or adding to, federal requirements. This statement is required by OAR 340-011-0029(1).

1. Is the proposed rulemaking different from, or in addition to, applicable federal requirements? If so, what are the differences or additions?

Yes. This rulemaking involves the adoption of federal air quality regulations. For the most part, this rulemaking proposes to adopt these regulations by reference. However, this rulemaking also proposes to go beyond federal regulations for gasoline dispensing facilities, large municipal waste combustors, and coal-fired power plants, as follows:

- In December 2007, EPA promulgated regulations for gasoline dispensing facilities (GDF). These regulations, called the Gasoline Dispensing National Emission Standards for Hazardous Air Pollutants (NESHAP), only require emission controls at the largest facilities. To further reduce benzene exposures in Oregon, this rulemaking proposes to go beyond the Gasoline Dispensing NESHAP by requiring emission controls at moderate and high volume facilities. This would be accomplished by reducing the federal volume trigger for stage I vapor controls from 100,000 gallons per month to 20,000 gallons per month phased-in over a six year period. Stage I vapor controls capture gasoline vapors that are normally emitted during the filling of gasoline storage tanks.
- EPA adopted amendments to the Emission Guidelines for Municipal Waste Combustors. Municipal waste combustors generate energy by incinerating garbage. The proposed amendments tighten the emissions standards contained in the Emission Guidelines. Oregon has one municipal waste combustor, owned and operated by Covanta, and located in Brooks. Historically Covanta has been able to keep their emissions below the proposed new levels for dioxin/furan, cadmium, and lead.
- On December 15, 2006, the Environmental Quality Commission (EQC) adopted the Utility Mercury Rule (UMR). UMR implements the federal Clean Air Mercury Rule (CAMR), a mercury cap-and-trade program, applicable to coal-fired power plants. UMR goes beyond CAMR by requiring coal-fired power plants to control mercury emissions by 90% by 2012; ending

the trading of mercury credits starting in 2018, and capping statewide mercury emissions from coal-fired power plants also starting in 2018. However, on February 8, 2008, the D.C. Circuit Court vacated CAMR. In response, this rulemaking proposes to remove the trading portions of the UMR. This is not different from or in addition to federal requirements, because the federal court vacated those federal requirements.

This rulemaking also proposes to add the following vacated federal requirements as state requirements:

- Monitoring provisions;
- Definitions related to monitoring provisions;
- Special provisions for measuring mercury mass emissions using the sorbent trap monitoring methodology;
- Procedures for mercury mass emissions;
- Quality assurance and quality control requirements;
- Specifications and test procedures for total vapor phase mercury CEMS;
- Quality assurance and operating procedures for sorbent trap monitoring systems,
- Standard missing data procedure for mercury CEMS; and
- Missing data procedures for sorbent trap monitoring systems.

These requirements are not different from the federal CAMR requirements before CAMR was vacated. But because the court vacated CAMR, the requirements are now in addition to federal requirements. Also, although the proposed rulemaking reorganizes other previously existing rules, the reorganization does not otherwise affect or change the substance of the previously adopted rules.

2. If the proposal differs from, or is in addition to, applicable federal requirements, explain the reasons for the difference or addition (including as appropriate, the public health, environmental, scientific, economic, technological, administrative or other reasons).

<u>Gasoline Dispensing Facilities</u>
The proposed rule requires additional emission reductions to protect public health and worker health, help prevent future violations of ambient air quality standards, and take advantage of existing emission control equipment.

Benzene, which naturally occurs in crude oil and is increased through refining to boost gasoline's octane rating, is a known carcinogen. Because benzene concentrations in many Oregon communities are many times above levels protective of human health, reducing benzene is a priority for DEQ. While several federal regulations and state initiatives promise to reduce benzene in our air over the next twenty years, DEQ is pursuing faster reductions.

In December 2007, EPA promulgated regulations for gasoline dispensing facilities. These regulations, called the Gasoline Dispensing NESHAP, only require emission controls at the largest facilities. To further reduce benzene exposures in Oregon, this rulemaking proposes to go beyond the Gasoline Dispensing NESHAP by requiring emission controls at moderate and high volume facilities.

Stage I vapor controls are currently required in Portland, Medford and Salem to control ozone. Outside of these areas stage I vapor controls are employed by some but not all gasoline dispensing facilities. Controlling gasoline vapors reduces benzene exposures at and near gasoline dispensing facilities, contributes to continuing compliance with stricter ozone standards, and also conserves gasoline.

The federal NESHAP will reduce benzene emissions caused by the filling of gasoline storage and dispensing tanks in Oregon by an estimated 12 tons per year (32%) and VOC emissions by an estimated 680 tons per year (32%), as well as save an estimated 221,000 gallons of gasoline per year (0.016%) statewide. By going beyond the NESHAP, this rulemaking would additionally reduce stage I benzene emissions in Oregon by an estimated 16 tons per year (44%) and VOC emissions by an estimated 930 tons per year (44%), and save an estimated 303,000 gallons of gasoline per year (0.021%) statewide. Combined, the federal NESHAP and the proposed statewide stage I vapor control requirement would reduce stage I benzene emissions in Oregon by an estimated 28 tons per year (76%) and VOC emissions by an estimated 1,610 tons per year (76%), and save an estimated 524,000 gallons of gasoline per year (0.037%) statewide.

Municipal Waste Combustors

The proposed rule requires lower emission levels to ensure Covanta's permit limits are consistent with the facility's actual performance.

On May 10, 2006, EPA adopted amendments to the Emission Guidelines for Municipal Waste Combustors. The proposed amendments tightened the emissions standards contained in the Emission Guidelines to reflect the actual performance levels being achieved by existing municipal waste combustors. Oregon has one municipal waste combustor, owned and operated by Covanta, and located in Brooks. This rulemaking proposes to adopt standards that go beyond the federal Emission Guidelines for these pollutants. DEQ does not anticipate that Covanta will need to install new controls to meet the proposed new limits.

Utility Mercury Rule

The proposed rule changes remove provisions vacated by a federal court ruling. The proposal retains existing provisions that exceed federal requirements to protect public health from exposure to mercury.

Several water bodies in Oregon currently have fish consumption advisories issued by Oregon Department of Health Services (DHS) warning anglers to limit their intake of native fish species because of increased mercury concentrations in fish tissue. To ensure that mercury reductions are made in Oregon and to minimize the impacts of individual coal-fired power plants, this rulemaking proposes to remove the federal trading program provisions, that were recently vacated by the courts, but to maintain the mandatory control requirement and cap on mercury emissions from coal-fired power plants.

3. If the proposal differs from, or is in addition to, applicable federal requirements, did the Department consider alternatives to the difference or addition? If so, describe the alternatives and the reason(s) they were not pursued.

Yes. For gasoline dispensing facilities, the Department considered requiring stage I vapor controls for all facilities statewide within three years. However, this alternative would have an adverse impact on smaller facility owners, which are mostly small businesses. The Department also considered requiring stage I vapor controls starting with facilities with throughput of greater than 10,000 gallons of gasoline per month phased-in over a three year period. The Department convened a Fiscal Advisory Committee to review the draft proposed rules. Some members of the Fiscal Impact Advisory Committee believe that setting the stage I vapor control threshold at 10,000 gallons would impose a significant adverse impact on small businesses. Based on recommendations from the Committee, the Department proposes to require stage I vapor controls starting with facilities with throughput of greater than 20,000 gallons of gasoline per month phased-in over a six year period. Refer to the Statement of Need and Fiscal and Economic Impact for more information on the Fiscal Advisory Committee.

The Covanta facility is already well controlled, exceeding the performance levels required by the newly tightened federal emission guidelines for several pollutants. The Department considered whether to adopt the newly tightened federal emission guidelines for municipal waste combustors or go beyond them. To limit backsliding and protect public health, the Department proposes to adopt limits for dioxins/furans, cadmium, and lead that are half the newly tightened federal emission guidelines. DEQ does not anticipate that Covanta will need to install new controls to meet the proposed new limits.

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

Land Use Evaluation Statement

Rulemaking Proposal
for
Adoption of Federal Air Quality Regulations

1. Explain the purpose of the proposed rules.

The Environmental Protection Agency (EPA) has adopted several new national emission standards for hazardous air pollutants (NESHAP) applicable to non-major or area sources, New Source Performance Standards (NSPS), and changes to the Emission Guidelines, NSPS, and NESHAP standards.

Adopting these changes will make Oregon's rules consistent with EPA's so that the Department can implement and keep its delegation of these regulations, which benefits industrial sources. These benefits include quicker approval of applicability determination requests and alternative testing, monitoring, recordkeeping, and reporting requests. In addition, adopting these standards benefits the public by allowing the Department to ensure that the required emission reductions are achieved in Oregon.

This rulemaking also proposes to go beyond the federal regulations applicable to gasoline dispensing facilities and large municipal waste combustors. The purpose of going beyond the federal regulations is to further reduce the exposure of Oregonians to hazardous air pollutants.

2. Do the proposed rules affect existing rules, programs or activities that are considered land use programs in the DEQ State Agency Coordination (SAC) Program?

Yes_X_ No____

a. If yes, identify existing program/rule/activity:

The Department's issuance of air permits is an action determined to have effects on land use. The Department will implement the proposed standards for major source categories through the Department's Title V Operating Permit Program and the standards for non-major source categories through the Department's Air Contaminant Discharge Permit (ACDP) Program.

b. If yes, do the existing statewide goal compliance and local plan compatibility procedures adequately cover the proposed rules?

Yes__X__ No_____ (if no, explain):

The Department will implement these rules through the ACDP and Title V permitting programs. Currently, cities and counties must provide a Land Use Compatibility Statement approval before the Department issues these permits or approves a Notice of Construction.

c. If no, apply the following criteria to the proposed rules.

Not applicable.

In the space below, state if the proposed rules are considered programs affecting land use. State the criteria and reasons for the determination.

Not applicable.

3. If the proposed rules have been determined a land use program under 2. above, but are not subject to existing land use compliance and compatibility procedures, explain the new procedures the Department will use to ensure compliance and compatibility.

Not applicable.

GENERAL
AIR CONTAMINANT DISCHARGE PERMIT

Department of Environmental Quality
Air Quality Division
811 SW Sixth Avenue
Portland, OR 97204-1390
Telephone: (503) 229-5359

This permit is issued in accordance with the provisions of ORS 468A.040 and incorporated into OAR 340-216-0060 by the Environmental Quality Commission on December 12, 2008~~August 30, 2001~~ for the following source category:

Halogenated solvent degreasers using batch vapor and in-line cleaning machines subject to Part 63, Title 40 of Code of Federal Regulations, Subpart T as adopted under OAR 340-244-0220.

Table of Contents

1.0 PERMIT ASSIGNMENT

1.1 Qualifications

All of the following conditions must be met in order to qualify for assignment to this General Air Contaminant Discharge Permit (ACDP):

a. The permittee is performing halogenated solvent degreasing as listed on the cover page of this permit, including supporting activities.

b. A Simple or Standard ACDP is not required for the source.

c. The source is not having ongoing, recurring or serious compliance problems.

1.2 Assignment

The Department will assign qualifying permittees to this permit that have and maintain a good record of compliance with the Department's Air Quality regulations and that the Department determines would be appropriately regulated by a General ACDP. The Department may rescind assignment if the permittee no longer meets the requirements of ~~OAR 340-216-0060 and the conditions of~~ this permit.

1.3 Permitted Activities

The permittee is allowed to discharge air contaminants from processes and activities related to the air contaminant source(s) listed on the first page of this permit until this permit expires, is modified, revoked or rescinded as long as conditions of this permit are complied with. If there are other emissions activities occurring at the site besides those listed on the cover page of this permit, the permittee may be required to obtain a Simple or Standard ACDP~~Permit~~ or additional General ACDP(s), if applicable.

2.0 GENERAL EMISSION STANDARDS AND LIMITS

2.1 Visible Emissions

The permittee must comply with the following visible emission limits, as applicable:

a. Emissions from any air contaminant source must not equal or exceed 20% opacity for a period aggregating more than 3 minutes in any one hour.

b. In Clackamas, Columbia, Multnomah, or Washington Counties, emissions from any air contaminant source other than fuel burning equipment must not equal or exceed 20%

opacity for a period aggregating more than 30 seconds in any one hour.

2.2 Particulate Matter Emissions

The permittee must comply with the following particulate matter emission limits, as applicable:

a. Particulate matter emissions from any air contaminant source, other than fuel burning equipment and fugitive emission sources, installed on or before June 1, 1970, must not exceed 0.2 grains per dry standard cubic foot.

b. Particulate matter emissions from any air contaminant source, other than fuel burning equipment and fugitive emission sources, installed after June 1, 1970, must not exceed 0.1 grains per dry standard cubic foot.

2.3 Fugitive Emissions

The permittee must take reasonable precautions ~~for~~to prevent~~ing~~ fugitive dust emissions~~ from becoming a nuisance~~, such as but not limited to:

a. Treating vehicular traffic areas of the plant site under the control of the permittee.

b. Operating all air contaminant-generating processes so that fugitive type dust associated with the operation will be adequately controlled at all times.

c. Storing collected materials from air pollution control equipment in a covered container or other method equally effective in preventing the material from becoming airborne during storage and transfer.

2.4 Particulate Matter Fallout

The permittee must not cause or permit the emission of any particulate matter larger than 250 microns in size at sufficient duration or quantity, as to create an observable deposition upon the real property of another person. The Department will verify that the deposition exists and will notify the permittee that the deposition must be controlled.

2.5 Nuisance and Odors

The permittee must not cause or allow air contaminants from any source to cause a nuisance. Nuisance conditions will be verified by Department personnel.

A compliance handbook is available from the DEQ's Small Business Technical Assistance Program by calling (503) 229-6147.

3.0 SPECIFIC EMISSION STANDARDS AND LIMITS

3.1 HAP Emissions Limit

Hazardous air pollutant (HAP) emissions must not exceed the following limits for each 12 consecutive calendar month period:

a. 9.9 tons for each individual HAP; and

b. 24.9 tons for combined HAPs.

3.2 Halogenated Solvent

For each affected source, the permittee must comply with either the control requirements or the alternative standards.

a. **Control Requirements**: The permittee must employ one of the control combinations listed in Attachment 1 or other equivalent methods of control as determined using the procedures in 40 CFR 63.469.

b. Alternative Standards:

i. Overall Emission Limits: For each cleaning machine, as an alternative to the control requirements in Condition 3.2a, the permittee can demonstrate that the emissions from the cleaning machine are equal to or less than the following overall emission limits. If the cleaning machine is a batch vapor cleaning machine and does not have a solvent/air interface, the permittee must determine the overall emission limit according to 40 CFR 63.464(a)(2). Any combination of control techniques may be used to meet the overall emission limits.

Affected Machine	**Average Monthly Emission Limit***
Batch vapor degreaser	150 kg/m^2 or 30.7 lb/ft^2
Existing In-line degreaser	153 kg/m^2 or 31.4 lb/ft^2
New In-line degreaser	99 kg/m^2 or 20 lb/ft^2

*based on a 3-month rolling average.

ii. Overall Control System Efficiency: For each continuous web or remote reservoir continuous web cleaning machine, as an alternative to the control requirements in Condition 3.2a, the permittee can demonstrate an overall control system efficiency of 70 percent or greater using the procedures in Condition 6.3. This demonstration can be made for either a single cleaning machine or for a solvent cleaning system that contains one or more cleaning machines and ancillary equipment, such as storage tanks and distillation units. If the demonstration is made for a cleaning system, the facility must identify any modifications required to the procedures in Condition 6.3 and they must be approved by the Department.

3.3 General Design Requirements

For each cleaning machine complying with the control requirements in Condition 3.2a, the permittee must ensure the machine conforms to the following design requirements. For each continuous web or remote reservoir continuous web cleaning machine, the permittee must comply with the requirements in Condition 3.4 or 3.5, as appropriate, in lieu of complying with Condition 3.3.

a. **Air disturbances**: Each cleaning machine must be designed or operated to meet the following control equipment or technique requirements.

i. A reduced room draft of 50 feet per minute or less.

ii. An idling and downtime mode cover that may be readily opened or closed, that completely covers the cleaning machine openings when in place, and is free of cracks, holes or other defects; or

b. **Freeboard ratio**: Each cleaning machine must have a freeboard ratio of 0.75 or greater.

c. **Parts handling system**: Each cleaning machine must have an automated parts handling system capable of moving parts or parts baskets at a speed of 11 feet per minute or less from the initial loading of parts through removal of cleaned parts.

d. **Sump heat shutoff**: Each vapor cleaning machine must be equipped with a device that shuts off the sump heat if the sump liquid solvent level drops to the sump heater coils. This requirement does not apply to a vapor cleaning machine that uses steam to heat the solvent.

e. **Vapor level control**: Each vapor cleaning machine must be equipped with a vapor level control device that shuts off sump heat if the vapor level rises above the height of the primary condenser.

f. **Vapor cleaning machines**: Each vapor cleaning machine must have a primary condenser.

g. **Lip exhaust**: Each cleaning machine that uses lip exhaust must be designed and operated to route all collected solvent vapors through a properly operated and maintained carbon adsorber.

3.4 Design Requirements for Continuous Web Cleaning Machines

For each continuous web cleaning machine complying with the control requirements in Condition 3.2a, the permittee must ensure the machine conforms to the following design requirements.

a. **Air disturbances**: Each cleaning machine must meet one of the following control equipment or technique requirements.

i. An idling and downtime mode cover that may be readily opened or closed; that completely covers the cleaning machine openings when in place; and is free of cracks, holes, and other defects. A continuous web part that completely occupies an entry or exit port when the machine is idle is considered to meet this requirement.

ii. A reduced room draft of 50 feet per minute or less

iii. Gasketed or leakproof doors that separate both the continuous web part feed reel and take-up reel from the room atmosphere if the doors are checked according to the requirements of Condition 6.2c

iv. A cleaning machine that is demonstrated to be under negative pressure during idling and downtime and is vented to a carbon adsorption system of either Condition 6.2g or 3.2b.ii

b. **Freeboard ratio**: Each continuous web cleaning machine must have a freeboard ratio of 0.75 or greater unless that cleaning machine is a remote reservoir continuous web cleaning machine.

c. **Automated parts handling system**: Each cleaning machine must have an automated parts handling system capable of moving parts or part baskets at a speed of 11 feet per minute or less from the initial loading of parts through removal of cleaned parts, unless the cleaning machine is a continuous web cleaning machine that has a squeegee system or air knife system installed, maintained, and operated on the continuous web cleaning machine meeting the requirements of Condition 6.2.

d. **Sump heat shutoff**: Each vapor cleaning machine must be equipped with a device that shuts off the sump heat if the sump liquid solvent level drops to the sump heater coils. This requirement does not apply to a vapor cleaning machine that uses steam to heat the solvent.

e. **Vapor level control**: Each vapor cleaning machine must be equipped with a vapor level control device that shuts off sump heat if the vapor level in the vapor cleaning machine rises above the height of the primary condenser.

f. **Primary condenser**: Each vapor cleaning machine must have a primary condenser.

g. **Exhaust**: Each cleaning machine that uses lip exhaust or any other exhaust within the solvent cleaning machine must be designed and operated to route all collected solvent vapors through a properly operated and maintained carbon adsorber that meets the requirements of either Condition 6.2g or 3.2b.ii.

3.5 Design Requirements for Remote Reservoir Continuous Web

For each remote reservoir continuous web cleaning machine complying with the control requirements in Condition 3.2a, the permittee must ensure the machine conforms to the following design requirements.

Cleaning Machines

a. **Automated parts handling system**: Each cleaning machine must have an automated parts handling system capable of moving parts or parts baskets at a speed of 3.4 meters per minute (11 feet per minute) or less from the initial loading of parts through removal of cleaned parts, unless the cleaning machine is a continuous web cleaning machine that has a squeegee system or air knife system installed, maintained, and operated on the continuous web cleaning machine meeting the requirements of Condition 6.2.

b. **Sump heat shutoff**: Each vapor cleaning machine must be equipped with a device that shuts off the sump heat if the sump liquid solvent level drops to the sump heater coils.

c. **Vapor level control**: Each vapor cleaning machine must be equipped with a vapor level control device that shuts off sump heat if the vapor level in the vapor cleaning machine rises above the height of the primary condenser.

d. **Primary condenser**: Each vapor cleaning machine must have a primary condenser.

e. **Exhaust**: Each cleaning machine that uses lip exhaust or any other exhaust within the solvent cleaning machine must be designed and operated to route all collected solvent vapors through a properly operated and maintained carbon adsorber that meets the requirements of either Condition 6.2g or 3.2b.ii.

3.6 Facility-Wide Perchloroethylene Emission Limit

a. The permittee must ensure that the total emissions of perchloroethylene (PCE) used at the affected facility are equal to or less than 4,800 kg (10,582 lbs) on a 12-month rolling average, according to the following schedule.

b. Each affected facility that was constructed or reconstructed on or before August 17, 2006, must be in compliance with the facility-wide perchloroethylene emission limit no later than May 3, 2010.

c. Each affected facility that was constructed or reconstructed on or after August 17, 2006, must be in compliance with the facility-wide perchloroethylene emission limit prior to assignment to this permit or immediately upon startup, whichever is later.

4.0 OPERATION AND MAINTENANCE REQUIREMENTS

4.1 General work practices

For each cleaning machine complying with the control requirements in Condition 3.2a, the permittee must meet all the following work and operational practices. For each continuous web cleaning machine, the permittee must comply with the requirements in Conditions 4.2 or 4.3, as appropriate, in lieu of complying with Condition 4.1.

a. **Air disturbances**: Control air disturbances across the cleaning machine openings by incorporating the following control equipment or techniques.

   i. Cover(s) to each solvent cleaning machine must be in place during the idling mode, and during the downtime mode unless either the solvent has been removed or maintenance or monitoring is being performed that requires the cover(s) to not be in place; or

   ii. A reduced room draft of 50 feet per minute or less.

b. **Parts coverage**: The parts baskets or the parts being cleaned in an open-top batch vapor cleaning machine must not occupy more than 50 percent of the solvent/air interface area unless the parts baskets or parts are introduced at a speed of 3.0 feet per minute or less.

c. **Spraying operations**: Any spraying must be done within the vapor zone or within a section of the solvent cleaning machine that is not directly exposed to the ambient air.

d. **Parts orientation**: Parts must be oriented so that the solvent drains from them freely. Parts having cavities or blind holes must be tipped or rotated before being removed from any solvent cleaning machine unless an equally effective approach has been approved.

e. **Parts drainage**: Parts baskets or parts must not be removed from any solvent cleaning machine until dripping has stopped.

f. **Startup**: During shutdown of each vapor cleaning machine, the sump heater must be turned off and the solvent vapor layer allowed to collapse before the primary condenser is turned off.

g. **Shutdown**: During shutdown of each vapor cleaning machine, the sump heater must be turned off and the solvent vapor layer allowed to collapse before the primary condenser is turned off.

h. **Solvent addition or drainage**: When solvent is added or drained from any solvent cleaning machine, the solvent must be transferred using threaded or other leakproof couplings and the end of the pipe in the solvent sump must be located beneath the liquid solvent surface.

i. **Maintenance**: Each solvent cleaning machine and associated controls must be maintained as recommended by the manufacturers of the equipment or using alternative maintenance practices that have been demonstrated to achieve the same or better results as those recommended by the manufacturer.

j. **Operator test**: Each operator of a solvent cleaning machine must complete and pass the applicable sections of the test of solvent cleaning procedures in Appendix A to 40 CFR part 63 subpart T if requested during an inspection.

k. **Waste collection and storage**: Waste solvent, still bottoms, and sump bottoms must be collected and stored in closed containers. The closed containers may contain a device that would allow pressure relief, but would not allow liquid solvent to drain from the container.

l. **Porous materials**: Sponges, fabric, wood, and paper products must not be cleaned.

4.2 Work Practices for Continuous Web Cleaning Machines

For each continuous web cleaning machine complying with the control requirements in Condition 3.2a, the permittee must comply with the following provisions.

a. **Air disturbances**: Control air disturbances across the cleaning machine opening(s) by incorporating one of the following control equipment or techniques.

i. Idling and downtime cover: Cover(s) to each solvent cleaning machine must be in place during the idling mode and during the downtime mode unless either the solvent has been removed from the machine or maintenance or monitoring is being performed that requires the cover(s) in place. A continuous web part that completely occupies an entry or exit port when the machine is idle is considered to meet this requirement.

ii. Reduced room draft: A reduced room draft of 50 feet per minute or less.

iii. Gasketed or leakproof doors or covers: Gasketed or leakproof doors or covers that separate both the continuous web part feed reel and take-up reel from the room atmosphere if the doors are checked according to the requirements of Condition 6.2c.

iv. Negative pressure: A cleaning machine that is demonstrated to be under negative pressure during idling and downtime and is vented to a carbon adsorption system that meets the requirements of either Condition 6.2g or 3.2b.ii.

b. **Spraying operations**: Any spraying operations must be conducted in a section of the solvent cleaning machine that is not directly exposed to the ambient air or within a machine having a door or cover that meets the requirements of Condition 4.2a.iii.

c. **Startup**: During startup of each vapor cleaning machine, the primary condenser must be turned on before the sump heater.

d. **Shutdown**: During shutdown of each vapor cleaning machine, the sump heater must be turned off and the solvent vapor layer allowed to collapse before the primary condenser is turned off.

e. **Solvent addition or drainage**: When solvent is added or drained from any solvent cleaning machine, the solvent must be transferred using threaded or other leakproof couplings, and the end of the pipe in the solvent sump must be located beneath the liquid solvent surface.

f. **Maintenance**: Each solvent cleaning machine and associated controls must be maintained as recommended by the manufacturers of the equipment or using alternative maintenance practices that have been demonstrated to achieve the same or better results as those recommended by the manufacturer.

g. **Waste collection and storage**: Waste solvent, still bottoms, sump bottoms, and waste absorbent materials used in the cleaning process for continuous web cleaning machines must be collected and stored in waste containers. The closed containers may contain a device that would allow pressure relief, but would not allow liquid solvent to drain from the container.

h. **Porous materials**: Except as provided in Condition 4.2i, sponges, fabric, wood, and paper products must not be cleaned.

i. **Porous material exemption**: The prohibition in Condition 4.2h does not apply to absorbent materials that are used as part of the cleaning process of continuous web cleaning machines, including rollers and roller covers.

4.3 Work Practices for Remote Reservoir Continuous Web Cleaning Machines

For each remote reservoir continuous web cleaning machine complying with the control requirements in Condition 3.2a, the permittee must comply with the following provisions.

a. **Spraying operations**: Any spraying operations must be conducted in a section of the solvent cleaning machine that is not directly exposed to the ambient air or within a machine having a door or cover that meets the requirements of Condition 4.2a.iii.

b. **Startup**: During startup of each vapor cleaning machine, the primary condenser must be turned on before the sump heater.

c. **Shutdown**: During shutdown of each vapor cleaning machine, the sump heater must be turned off and the solvent vapor layer allowed to collapse before the primary condenser is turned off.

d. **Solvent addition or drainage**: When solvent is added or drained from any solvent cleaning machine, the solvent must be transferred using threaded or other leakproof couplings, and the end of the pipe in the solvent sump must be located beneath the liquid solvent surface.

e. **Maintenance**: Each solvent cleaning machine and associated controls must be maintained as recommended by the manufacturers of the equipment or using alternative maintenance practices that have been demonstrated to achieve the same or better results as those recommended by the manufacturer.

f. **Waste collection and storage**: Waste solvent, still bottoms, sump bottoms, and waste absorbent materials used in the cleaning process for continuous web cleaning machines must be collected and stored in waste containers. The closed containers may contain a device that would allow pressure relief, but would not allow liquid solvent to drain from the container.

g. **Porous materials**: Except as provided in Condition 4.3h, sponges, fabric, wood, and paper products must not be cleaned.

h. **Porous material exemption**: The prohibition in Condition 4.3g does not apply to absorbent materials that are used as part of the cleaning process of continuous web cleaning machines, including rollers and roller covers.

5.0 PLANT SITE EMISSION LIMITS

5.1	**Plant Site Emission Limits (PSEL)**	Plant site emissions must not exceed 39 tons of VOC per year.
5.2	**Annual Period**	The annual plant site emissions limits apply to any 12-consecutive calendar month period.

6.0 COMPLIANCE DEMONSTRATION

6.1	**Overall Emission Limit Compliance Demonstration**	a.	**Solvent maintenance**: For each solvent cleaning machine complying with the overall emission limit in Condition 3.2b.i, on the first operating day of the month, the permittee must ensure that the solvent cleaning machine system contains only clean liquid solvent. This includes, but is not limited to, fresh unused solvent, recycled solvent and used solvent that has been cleaned of soils. A fill line must be indicated during the first month the measurements are made. The solvent level within the machine must be returned to the same fill-line each month, immediately prior to calculating monthly emissions as specified in Condition 6.1b. The solvent cleaning machine does not have to be emptied and filled with fresh unused solvent prior to the calculations.

b. **Solvent emissions**: Using the records of all solvent additions and deletions for the previous monthly reporting period, determine solvent emissions (E_i) using equation 1 for cleaning machines with a solvent/air interface and equation 2 for cleaning machines without a solvent/air interface:

$$Ei = \frac{SAi - LSRi - SSRi}{AREAi} \qquad (1)$$

$$\boxed{} \qquad (2)$$

where,

E_i = the total halogenated HAP solvent emissions from the solvent cleaning machine during the most recent monthly reporting period i, (kilograms of solvent per square meter of solvent/air interface area per month)

E_n = the total halogenated HAP solvent emissions from the solvent cleaning machine during the most recent monthly reporting period i, (kilograms of solvent per month)

Sa_i = the total amount of halogenated HAP liquid solvent added to the solvent cleaning machine during the most recent monthly reporting period i, (kilograms of solvent per month)

LSR_i = the total amount of halogenated HAP liquid solvent removed from the solvent cleaning machine during the most recent monthly reporting period i, (kilograms of solvent per month)

SSR_i = the total amount of halogenated HAP solvent removed from the solvent cleaning machine in solid waste during the most recent monthly reporting period i, (kilograms of solvent per month)

$AREA_i$ = the solvent/air interface area of the solvent cleaning machine (square meters)

c. Solvent removed: Determine SSR_i from tests conducted using EPA Reference Method 25d or by engineering calculations included in the compliance report required in Condition 8.3.

d. 3-month rolling average solvent emissions: Determine the monthly rolling average, EA, for the 3-month period ending with the most recent reporting period using equation 3 for cleaning machines with a solvent/air interface or equation 4 for cleaning machines without a solvent/air interface:

(3)

$$EAn = \frac{\sum_{j=1}^{3} En}{3} \qquad (4)$$

where,

EA_i = the average halogenated HAP solvent emissions over the preceding 3 monthly reporting periods, (kilograms of solvent per square meter of solvent/air interface area per month)
EA_n = the average halogenated HAP solvent emissions over the preceding 3 monthly reporting periods, (kilograms of solvent per month)
E_i = halogenated HAP solvent emissions for each month (j) for the most recent 3 monthly reporting periods (kilograms of solvent per square meter of solvent/air interface area)
E_n = halogenated HAP solvent emissions for each month (j) for the most recent 3 monthly reporting periods (kilograms of solvent per month)
j=1 = the most recent monthly reporting period
j=2 = the monthly reporting period immediately prior to j=1
j=3 = the monthly reporting period immediately prior to j=2

6.2 Control Requirements, Design Requirements, and Work Practices Compliance Demonstration

For each cleaning machine complying with the control requirements in Condition 3.2a, the permittee must determine, during each monitoring period, whether each control device used to comply with the control requirements in Condition 3.2a, design requirements in Conditions 3.3, 3.4, and 3.5, and work practices in Conditions 4.1, 4.2, and 4.3, meets the following requirements. The type and frequency of monitoring will be dictated by the compliance method chosen by the permittee.

a. Freeboard refrigeration:

i. Freeboard refrigeration maintenance: The permittee must ensure that the chilled air blanket temperature, measured at the center of the air blanket using a thermometer or thermocouple, is no greater 30 percent of the solvent's boiling point during the idling mode.

ii. Freeboard refrigeration temperature monitoring: The permittee must determine and record the temperature on a weekly basis.

b. Reduced room draft:

i. Room draft measurement: The permittee must ensure that the flow or movement of the air across the top of the freeboard area of the solvent cleaning machine enclosure does not exceed 50 feet per minute at any time.

ii. Room draft maintenance: The permittee must establish and maintain the operating conditions under which the speed was demonstrated to be 50 feet per minute or less.

iii. Room draft monitoring: The permittee must conduct monitor and record the results as follows:

If reduced room draft is maintained by controlling room parameters (i.e., redirecting fans, closing doors and windows, etc.) the permittee must conduct an initial monitoring test of the windspeed and of room parameters, quarterly monitoring of windspeed, and weekly monitoring of room parameters as follows:

- Measure the windspeed within 6 inches above the top of the freeboard area of the solvent cleaning machine using the following procedures:
- Determine the direction of the wind current by slowly rotating a velometer or similar device until the maximum speed is located.
- Orient a velometer in the direction of the wind current at each of the four corners of the machine.
- Record the reading for each corner.

- Average the values obtained at each corner and record the average wind speed.
- Monitor on a weekly basis the room parameters established during the initial compliance test that are used to achieve the reduced room draft.

If an enclosure (full or partial) is used to achieve a reduced room draft, the permittee must conduct an initial monitoring test and, thereafter, monthly monitoring tests of the windspeed within the enclosure using the following procedure and a monthly visual inspection of the enclosure to determine if it is free of cracks, holes and other defects.

- Determine the direction of the wind current in the enclosure by slowly rotating a velometer inside the entrance to the enclosure until the maximum speed is located.
- Record the maximum wind speed.

c. Working-mode cover:

i. Cover Operation: The permittee must ensure that the cover opens only for part entrance and removal and completely covers the cleaning machine openings when closed.

ii. Cover maintenance: The permittee must ensure that the cover is maintained free of cracks, holes, and other defects.

iii. Cover monitoring: The permittee must inspect and record the results of the inspection on a monthly basis to determine if the cover is opening and closing properly, completely covers the openings when closed, and is free of cracks, holes, and other defects.

d. Idling-mode cover:

i. Cover operation: The permittee must ensure that the cover is in place whenever parts are not in the solvent cleaning machine and completely covers the cleaning machine openings when in place.

ii. Cover maintenance: The permittee must ensure that the cover is maintained free of cracks, holes, and other defects.

iii. Cover monitoring: The permittee must inspect and record the results of the inspection on a monthly basis to determine if the cover is opening and closing properly, completely covers the openings when closed, and is free of cracks, holes, and other defects.

e. Dwell:

i. Determination of appropriate dwell time: The permittee must determine the amount of time for the part or parts basket to cease dripping once placed in the vapor zone for each type of part or parts basket, or using the most complex part type. The proper dwell time for parts to remain in the freeboard area above the vapor zone is no less than 35 percent of the time determined. The parts or parts basket used for this determination must be at room temperature before being placed in the vapor zone.

ii. Dwell time maintenance: The permittee must ensure that, after cleaning, each part is held in the solvent cleaning machine freeboard area above the vapor zone for the dwell time determined for that particular part or parts basket, or for the maximum dwell time determined using the most complex part type or parts basket.

iii. Dwell time monitoring: The permittee must determine and record the actual dwell time, on a monthly basis, by measuring the period of time that parts are held within the freeboard area of the solvent cleaning machine after cleaning.

f. Superheated vapor system:

i. Superheated vapor system maintenance: The permittee must ensure that the temperature of the solvent vapor at the center of the superheated vapor zone, using a thermometer or thermocouple, is at least 10 ^{o}F above the solvent's boiling point in the idling mode. The permittee must determine and record the temperature on a weekly basis.

ii. Superheated vapor system dwell time: The permittee must ensure that the manufacturer's specifications for determining the minimum proper dwell time within the superheated vapor system is followed. The permittee must ensure that the parts remain within the superheated vapor for at least the minimum proper dwell time.

iii. Superheated vapor system temperature monitoring: The permittee must determine and record the temperature on a weekly basis.

g. **Carbon adsorber**: If a carbon adsorber in conjunction with a lip exhaust or other exhaust internal to the cleaning machine is used to comply with these standards, the permittee must comply with the following requirements.

i. Carbon adsorber maintenance: The permittee must ensure that the concentration of organic solvent in the exhaust from this device does not exceed 100 parts per million of any halogenated HAP compound as measured. If the halogenated HAP solvent concentration in the carbon adsorber exhaust exceeds 100 parts per million, the permittee must adjust the desorption schedule or replace the disposable canister, if not a regenerative system, so that the exhaust concentration of the halogenated HAP solvent is brought below 100 parts per million.

ii. Carbon adsorber operation: The permittee must ensure that the carbon adsorber bed is not bypassed during desorption.

iii. Lip exhaust location: The permittee must ensure that the lip exhaust is located above the solvent cleaning machine cover so that the cover closes below the lip exhaust level.

iv. Monitoring sampling port: The permittee must provide a sampling port for monitoring within the exhaust outlet of the carbon adsorber that is easily accessible and located at least 8 stack or duct diameters downstream form any flow disturbance such as a bend, expansion, contraction, or outlet; downstream from no other inlet; and 2 stack or duct diameters upstream from any flow disturbance such as a bend, expansion, contraction, inlet or outlet.

v. Carbon adsorber monitoring: The permittee must measure and record the concentration of halogenated HAP solvent in the exhaust of the carbon adsorber weekly with a colorimetric detector tube. This test must be conducted while the solvent cleaning machine is in the working mode and is venting to the carbon adsorber. The permittee must use a colorimetric detector tube designed to measure a concentration of 100 parts per million by volume of solvent in air to an accuracy of ±25 parts per million by volume. The permittee must use the colorimetric detector tube according to the manufacturer's instructions.

h. Parts Handling System:

i. Hoist speed determination: The permittee must determine the hoist speed by measuring the time it takes for the hoist to travel a measured distance. The speed is equal to the distance in feet divided by the time in minutes.

ii. Hoist speed monitoring: The hoist speed determination must be done monthly. If after the first year, no exceedances of the hoist speed are measured, the permittee may begin monitoring the hoist speed quarterly. If an exceedance of the hoist speed occurs during quarterly monitoring, the monitoring frequency returns to monthly until another year of compliance without an exceedance is demonstrated. If the permittee can demonstrate in the initial compliance report that the hoist cannot exceed a speed of 11 feet per minute, the required monitoring frequency is quarterly, including during the first year of compliance.

i. Superheated Part System:

i. Superheated part system monitoring: If a superheated part system is used to comply with the control requirements in Condition 3.2a, the permittee must use a thermometer, thermocouple, or other temperature measurement device to measure the temperature of the continuous web part while it is in the solvent cleaning machine. This temperature can also be taken at the exit of the solvent cleaning machine.

ii. Alternative superheated part system monitoring: As alternative to complying with Condition 6.2.i.i, the permittee can provide data that demonstrate that the part temperature remains above the boiling point of the solvent at all times that the part is within the continuous web solvent cleaning machine. This data could include design and operating conditions such as information supporting any exothermic reaction inherent in the processing.

iii. Superheated part system maintenance: The permittee must ensure that the temperature of the continuous web part is at least 10 degrees Fahrenheit above the solvent boiling point while the part is traveling through the cleaning machine.

j. **Squeegee System**: If a squeegee system is used to comply with the continuous web or remote reservoir continuous web cleaning requirements of Condition 3.4c or 3.5a, the permittee must comply with the following requirements.

i. Maximum product throughput determination: Determine the appropriate maximum product throughput for the squeegees used in the squeegee system, as follows:

- Conduct daily visible inspections of the continuous web part. This monitoring must be conducted at the point where the continuous web part exits the squeegee system. It is not necessary for the squeegees to be new at the time monitoring is begun if the following conditions are met.

- The continuous web part leaving the squeegee system has no visible solvent film.
- The amount of continuous web that has been processed through the squeegees since the last replacement is known.
- Continue daily monitoring until a visible solvent film is noted on the continuous web part.
- Determine the length of continuous web product that has been cleaned using the squeegee since it was installed.
- The maximum product throughput is equal to the time it takes to clean 95 percent of the length of product determined above. This time period, in days, may vary depending on the amount of continuous web product cleaned each day.

ii. Squeegee monitoring: The permittee must visually inspect the continuous web part exiting the solvent cleaning machine to ensure that no solvent film is visible on the part. Record both results of the visible inspection and the length of continuous web product cleaned during the previous week.

iii. Product processed: Calculate the total amount of continuous web product processed since the squeegees were replaced and compare to the maximum product throughput for the squeegees.

iv. Squeegee replacement: Ensure squeegees are replaced at or before the maximum product throughput is attained.

v. Recalculation of maximum product throughput: Redetermine the maximum product throughput for the squeegees if any solvent film is visible on the continuous web part immediately after if exits the cleaning machine.

k. **Air Knife System**: If an air knife system is used to comply with the continuous web or remote reservoir continuous web cleaning requirements of Condition 3.3c or 3.5a, the permittee must comply with the following requirements.

i. Air knife parameter determination: Determine the air knife parameter and parameter value that demonstrate that the air knife is properly operating. An air knife is properly operating if no visible solvent film remains on the continuous web part after it exits the cleaning machine.

ii. Air knife parameter maintenance: Maintain the selected air knife parameter value at the level determined in Condition 6.2.k.i.

iii. Air knife monitoring: The permittee must visually inspect the continuous web part exiting the solvent cleaning machine to ensure that no solvent film is visible on the part.

iv. Redetermination of air knife parameter: Redetermine the proper air knife parameter value if any solvent film is visible on the continuous web part immediately after it exits the cleaning machine.

l. **Combination squeegee and air knife system**: If a combination squeegee and air knife system is used to comply with the continuous web or remote reservoir continuous web cleaning requirements of Condition 3.4c or 3.5a, the permittee must comply with the following requirements.

i. Squeegee air knife parameter determination: Redetermine the system parameter and value that demonstrate that the system is properly operating.

ii. Squeegee and air knife parameter maintenance: Maintain the selected parameter value at the level determined in Condition 6.2.l.i.

iii. Squeegee and air knife monitoring: The permittee must visually inspect the continuous web part exiting the solvent cleaning machine to ensure that no solvent film is visible on the part.

iv. Redetermination of squeegee air knife parameter: Redetermine the proper parameter value if any solvent film is visible on the continuous web part immediately after it exits the cleaning machine.

6.3 Overall Control System Efficiency Compliance Demonstration

For each cleaning machine complying with the overall control system efficiency in Condition 3.2b.ii, on the first operating day of the month, the permittee must ensure that the solvent cleaning machine system contains only clean liquid solvent. This includes, but is not limited to, fresh unused solvent, recycled solvent and used solvent that has been cleaned of soils. A fill line must be indicated during the first month the measurements are made. The solvent level within the machine must be returned to the same fill-line each month, immediately prior to calculating the overall cleaning system control efficiency. The solvent cleaning machine does not have to be emptied and filled with fresh unused solvent prior to the calculations.

Overall control system efficiency determination: For each cleaning machine complying with the overall control system efficiency in Condition 3.2b.ii, the permittee must, on the first operating day of the month, determine the overall control system efficiency as follows.

Using the records of all solvent additions, solvent deletions, and solvent recovered from the carbon adsorption system for the previous monthly reporting period required under Condition 8.6, determine overall control system efficiency (E_o) using the following equation:

$$E_o = R_i / (R_i + Sa_i - SSR_i)$$

where,

E_o = overall cleaning system control efficiency

R_i = the total amount of halogenated HAP liquid solvent recovered from the carbon adsorption system and recycled to the solvent cleaning system during the most recent monthly reporting period i, (kilograms of solvent per month)

Sa_i = the total amount of halogenated HAP liquid solvent added to the solvent cleaning system during the most recent monthly reporting period i, (kilograms of solvent per month)

SSR_i = the total amount of halogenated HAP solvent removed from the solvent cleaning system in solid waste, obtained as described in Condition 6.1c, during the most recent monthly reporting period i, (kilograms of solvent per month)

6.4 HAP Emissions

a. Compliance with the individual HAP emission limit in Condition 3.1a is determined for each 12-consecutive calendar month period based on the following calculation for each HAP:

$$E_{HAPI} = [\Sigma(C_X * D_X * K_X) - W] \times 1 \text{ ton }/2000\text{lb.}$$

where,

E_{HAPI} = Individual HAP emissions (ton/yr.);
I = Subscript I represents a specific HAP;
Σ = Symbol meaning the sum of the emissions from all types of materials used;~~.~~
C = Material usage for the period in gallons;
D = Material density in pounds per gallon;
K = Material HAP fraction in pounds of HAP per pound of material;
X = Subscript X represents a specific material;
W = Weight of HAP shipped offsite.

b. Compliance with the combined HAP emission limit in Condition 3.1b is determined for each 12-consecutive calendar month period by summing the individual HAP emissions determined in a, above.

6.5 VOC Emissions

Compliance with the VOC PSEL in Condition 5.1 is determined for each 12-consecutive calendar month period based on the following calculation:

$$E_{VOC} = [\Sigma(C_X * D_X * K_X) - W] \times 1 \text{ ton }/2000\text{lb.}$$

where,

E_{VOC} = VOC emissions (ton/yr.);
Σ = Symbol meaning the sum of the emissions from all types of materials used;~~.~~
C = Material usage for the period in gallons;
D = Material density in pounds per gallon;
K = Material VOC fraction in pounds of VOC per pound of material;
X = Subscript X represents a specific material;
W = Weight of VOC shipped offsite.

6.6 Perchloroethylene Emissions

The permittee must, on the first operating day of every month, demonstrate compliance with the facility-wide perchloroethylene emission limit in Condition 3.6 on a 12-month rolling total basis using the following procedures.

a. The permittee must, on the first operating day of every month, ensure that each solvent cleaning machine system using perchloroethylene contains only clean liquid solvent. This includes, but is not limited to, fresh unused solvent, recycled solvent, and used solvent that has been cleaned of soiled materials. A fill line must be indicated during the first month the measurements are made. The solvent level within the machine must be returned to the same fill-line each month, immediately prior to calculating monthly emissions as follows. The solvent cleaning machine does not have to be emptied and filled with fresh unused solvent prior to the calculations.

~~a.~~b. The permittee must, on the first operating day of the month, using the records of all solvent additions and deletions for the previous month, determine perchloroethylene emissions (E_{unit}) from each solvent cleaning machine using the following equation:

$$E_{unit} = SA_i - LSR_i - SSR_i$$

where,

E_{unit} = the total perchloroethylene emissions from the solvent cleaning machine during the most recent month i, (kilograms of solvent per month);
SA_i = the total amount of perchloroethylene liquid solvent added to the solvent cleaning machine during the most recent month i, (kilograms of solvent per month);
LSR_i = the total amount of perchloroethylene liquid solvent removed from the solvent cleaning machine during the most recent month i, (kilograms of solvent per month);
SSR_i = the total amount of perchloroethylene solvent removed from the solvent cleaning machine in solid waste, obtained as described in Condition 6.6c, during the most recent month i, (kilograms of solvent per month).

c. The permittee must, on the first operating day of the month, determine SSR_i from tests conducted using EPA reference method 25d or by engineering calculations included in the compliance report.

d. The permittee must on the first operating day of the month, after 12 months of perchloroethylene emissions data are available, determine the 12-month rolling total perchloroethylene emissions, ET_{unit}, for the 12-month period ending with the most recent month using the following equation:

$$ET_{unit} = [\sum E_{unit}]$$

where,

ET_{unit} = the total perchloroethylene solvent emissions over the preceding 12 months, (kilograms of solvent emissions per 12- month period);

$\sum$ = Symbol meaning the sum of the monthly perchloroethylene emissions;

E_{unit} = perchloroethylene solvent emissions for each month for the most recent 12 months (kilograms of solvent per month).

~~b.~~e. The permittee must on the first operating day of the month, after 12 months of emissions data are available, determine the 12-month rolling total perchloroethylene emissions, $ET_{facility}$, for the 12-month period ending with the most recent month using following equation:

$$ET_{facility} = [\sum ET_{unit}]$$

where,

$ET_{facility}$ = the total perchloroethylene solvent emissions over the preceding 12 months for all cleaning machines at the facility, (kilograms of solvent emissions per 12-month period);

$\sum$ = Symbol meaning the sum of the monthly perchloroethylene emissions;

ET_{unit} = the total perchloroethylene solvent emissions over the preceding 12 months for each unit at the facility (kilograms of solvent per month).

f. If the facility-wide perchloroethylene emission limit in Condition 3.6 is not met, an exceedance has occurred. All exceedances must be reported as required in Condition 8.10.

7.0 RECORDKEEPING REQUIREMENTS

7.1 General Recordkeeping for Control Requirements

For each solvent cleaning machine complying with the control requirements in Condition 3.2a, the permittee must maintain the following records in written or electronic form for the lifetime of the machine.

a. **Machine and control equipment documentation**: Owner's manuals, or if not available, written maintenance and operating procedures, for the solvent cleaning machine and control equipment.

b. **Machine and control device installation**: The date of installation for the solvent cleaning machine and all of its control devices. If the exact date for installation is not known, a letter certifying that the cleaning machine and its control devices were installed prior to, or on, November 29, 1993, or after November 29, 1993, may be substituted.

c. **Dwell time determinations**: If a dwell is used to comply with the control requirements in Condition 3.2a, records of the tests required in Condition 6.2e.i to determine an appropriate dwell time for each part or parts basket.

d. **Halogenated HAP solvent content**: Records of the halogenated HAP solvent content for each solvent used in a solvent cleaning machine~~ subject to the provisions of 40 CFR part 63 subpart T~~.

e. **Squeegee system maximum product throughput**: If a squeegee system is used to comply, records of the test required by Condition 6.2j to determine the maximum product throughput for the squeegees.

f. **Air knife system or combination squeegee and air knife system parameter**: If an air knife system or a combination squeegee and air knife system is used to comply, records of the determination of the proper operating parameter and parameter value for the air knife system.

7.2 Specific Recordkeeping for Control Requirements

For each solvent cleaning machine complying with the control requirements in Condition 3.2a, the permittee must maintain the following records either in electronic or written form for a period of 5 years.

a. **Monitoring results**: The results of control device monitoring required under Condition 6.2.

b. **Actions taken to comply with monitoring requirements**: Information on the actions taken to comply with Condition 6.2. This information must include records of written or verbal orders for replacement parts, a description of the repairs made, and additional monitoring conducted to demonstrate that monitored parameters have returned to accepted levels.

c. **Annual solvent consumption**: Estimates of annual solvent consumption for each solvent cleaning machine.

d. **Carbon adsorber monitoring**: If a carbon adsorber is used to comply, records of the date and results of the weekly measurement of the halogenated HAP solvent concentration in the carbon adsorber exhaust required in Condition 6.2g.v.

7.3 Recordkeeping for Overall Emission Limit

For each solvent cleaning machine complying with the overall emission limit in Condition 3.2b.i, the permittee must maintain the following records either in electronic or written form for a period of 5 years.

a. **Solvent addition**: The dates and amounts of solvent that are added to the solvent cleaning machine.

b. **Solvent removal**: The solvent composition of wastes removed from cleaning machines as determined using the procedure described in Condition 6.1c.

c. **Emission calculations**: Calculation sheets showing how monthly emissions and the rolling 3-month average emissions from the solvent cleaning machine were determined, and the results of all calculations.

d. **Cleaning capacity**: For each solvent cleaning machine without a solvent/air, the permittee must maintain records on the method used to determine the cleaning capacity of the cleaning machine.

e. Summary of complaints.

7.4 Recordkeeping for overall control system efficiency

For each cleaning machine complying with the overall control system efficiency in Condition 3.2b.ii, the permittee must maintain the following records in either electronic or written form for a period of five (5) years.

a. **Solvent addition**: The dates and amounts of solvent that are added to the solvent cleaning machine.

b. **Solvent recovery**: The dates and amounts of solvent that are recovered from the desorption of the carbon adsorber system.

c. **Solvent removal**: The solvent composition of wastes removed from each cleaning machine as determined using the procedures in Condition 6.1c.

d. **Emission calculations**: Calculation sheets showing the calculation and results of determining the overall cleaning system control efficiency.

7.5 Recordkeeping for Facility-Wide Perchloroethylene Emission Limit

The permittee must maintain the following records either in electronic or written form for a period of 5 years. For purposes of this condition, ''each solvent cleaning machine'' means each solvent cleaning machine using perchloroethylene.

a. The dates and amounts of solvent that are added to each solvent cleaning machine.

b. The solvent composition of wastes removed from each solvent cleaning machine as determined using the procedure described in Condition 6.6c.

c. Calculation sheets showing how monthly perchoroethylene emissions and the 12-month rolling total emissions from each solvent cleaning machine were determined, and the results of all calculations.

~~7.5~~7.6 VOC and HAP Emissions

The permittee must maintain the following records on a monthly basis:

a. Types of VOC or HAP containing materials used

b. Amount of each material used based on purchase records and inventories at the beginning and end of each calendar month. (gal.)

c. Density of each type of material (lb/gal.)

d. VOC fraction for each type of material (lb VOC/lb material)

e. Individual HAP fraction for each type of material (lb HAP/lb material)

f. Weight of VOC shipped offsite

g. Weight of individual HAP shipped offsite

~~7.6~~7.7 Complaint Log	The permittee must maintain a log of all written complaints and complaints received via telephone that specifically refer to air pollution concerns associated to the permitted facility. The log must include a record of the permittee's actions to investigate the validity of each complaint and a record of actions taken for complaint resolution.
~~7.7~~7.8 Retention of Records	Unless otherwise specified, all records must be maintained on site for a period of five~~two~~ (5~~2~~) years and made available to the Department upon request.

8.0 REPORTING REQUIREMENTS

8.1 Initial Notification of Affected Facility

For each new halogenated solvent cleaning machine, the permittee must submit an initial notification as soon as practicable before the construction or reconstruction is planned to commence.

8.2 Initial Statement of Compliance

a. **Control Requirements Compliance Option**: For each new solvent cleaning machine complying with the control requirements in Condition 3.2a, the permittee must submit an initial statement of compliance. This report must be submitted no later than 150 days after startup.

b. **Overall Emission Limits Compliance Option**: For each new solvent cleaning machine complying with the overall emission limits in Condition 3.2b.i, the permittee must submit an initial statement of compliance. This report must be submitted no later than 150 days after startup.

c. **Overall Control System Efficiency Compliance Option**: For each solvent cleaning machine complying with the overall control system efficiency in Condition 3.2b.ii, the permittee must submit an initial statement of compliance. This report must be submitted no later than 150 days after startup.

8.3 Annual Report

For each solvent cleaning machine complying with the provisions of Condition 3.2a, the permittee must submit an annual report by February 15 of the year following the one for which the reporting is being made.

8.4 Solvent Emission Report for Overall Emission Limit

For each solvent cleaning machine complying with the overall emission limit in Condition 3.2b.i, the permittee must submit a solvent emission report every year.

8.5 Solvent Emission Report for the Facility-Wide Perchloroethylene Emission Limit	The permittee must submit a solvent emission report every year. This solvent emission report must contain the following requirements. a. The average monthly perchloroethylene solvent consumption for the affected facility in kilograms per month. b. The 12-month rolling total perchloroethylene solvent emission estimates calculated each month using the method as described in Condition 6.6. c. This report can be combined with the annual report required in Conditions 8.5 and 8.6 into a single report for the facility.
~~8.5~~8.6 Control Efficiency Report	For each solvent cleaning machine complying with the overall control system efficiency in Condition 3.2b.ii, the permittee must submit a control efficiency report every year.
~~8.6~~8.7 Annual VOC and HAP Emissions Report	The permittee must submit the following information to the Department by February 15 of each year: a. Emissions data: i. VOC emissions (tons per year) ii. Individual HAP emissions (tons per year) iii. Total HAP emissions (tons per year) b. Records of all planned and unplanned excess emissions events. c. Summary of complaints relating to air quality received by permittee during the year. d. List permanent changes made in plant process, production levels, and pollution control equipment which affected air contaminant emissions. e. List major maintenance performed on pollution control equipment.

~~8.7~~8.8 Exceedance Report	For each solvent cleaning machine, the permittee must submit an exceedance report semiannually except when, determined on a case-by-case basis that more frequent reporting is necessary to accurately assess the compliance status of the source or, an exceedance occurs. Once an exceedance has occurred the permittee must follow a quarterly reporting format until a request to reduce reporting frequency under Condition 8.11 is approved. Exceedance reports must be delivered or postmarked by the 30th day following the end of each calendar half or quarter, as appropriate.
~~8.8~~8.9 Exceedance Reporting Frequency Reduction	The permittee may reduce the frequency of the exceedance reporting required in Condition 8.10 to semiannual if the following conditions are met. a. The permittee has demonstrated a full year of compliance without an exceedance. b. The permittee continues to comply with all relevant recordkeeping and monitoring requirements specified in this permit. c. The Administrator of the EPA does not object to a reduced frequency of reporting for the affected source~~ as provided in 40 CFR 63.10(e)(3)(iii)~~.
~~8.9~~8.10 Equivalency Determination Request	For each new solvent cleaning machine requesting an equivalency determination, as described in 40 CFR 63.469, the permittee must submit an equivalency request report to the Administrator of EPA. This report must be submitted and approved by the Administrator prior to startup.
~~8.10~~8.11 Notice of Change of Ownership or Company Name	The permittee must notify the Department in writing using a Departmental "Permit Application Form" within 60 days after the following: a. Legal change of the name of the company as registered with the Corporations Division of the State of Oregon; or b. Sale or exchange of the activity or facility.
~~8.11~~8.12 Where to Send Reports and Notices	The reports, with the permit number prominently displayed, must be sent to the Permit Coordinator for the region where the source is located as identified in Condition 9.2.

9.0 ADMINISTRATIVE REQUIREMENTS

9.1 Reassignment to	A complete application for reassignment to this permit is due

the General Permit	within 60 days after the permit is reissued. The Department will notify the permittee when the permit is reissued. The application must be sent to the appropriate regional office.

a. If the Department is delinquent in renewing the permit, the existing permit will remain in effect and the permittee must comply with the conditions of the permit until such time that the permit is reissued and the source is reassigned to the permit.

b. The permittee may submit an application for either a Simple or Standard ACDP at any time, but the permittee must continue to comply with the General ACDP until the Department takes final action on the Simple or Standard ACDP application.

c. If a complete application for reassignment to the General ACDP or Simple or Standard ACDP is filed with the Department in a timely manner, the permit will not be deemed to expire until final action has been taken on the application.

9.2 Permit Coordinator Addresses All reports, notices, and applications should be directed to the Permit Coordinator for the area where the source is located. The Permit Coordinator addresses are as follows:

Counties	**Permit Coordinator Address and Telephone**
Clackamas, Clatsop, Columbia, Multnomah, Tillamook, and Washington	Department of Environmental Quality Northwest Region 2020 SW 4th Avenue, Suite 400 Portland, OR 97201-4987 Telephone: (503) 229-5582
Benton, Coos, Curry, Douglas, Jackson, Josephine, Lincoln, Linn, Marion, Polk, and Yamhill	Department of Environmental Quality Western Region 750 Front Street NE, Suite 120 Salem, OR 97301-1039 Telephone: (503) 378-~~8240 ext. 225~~5305
Baker, Crook, Deschutes, Gilliam, Grant, Harney, Hood River, Jefferson, Klamath, Lake, Malheur, Morrow, Sherman, Umatilla, Union, Wallowa, Wasco, Wheeler	Department of Environmental Quality Eastern Region ~~2146 NE 4th Street, Suite 104~~300 SE Reed Market Road Bend, OR 97702~~1-3647~~ Telephone: (541) 388-6146 ext. 223

9.3 Department Information about air quality permits and the Department's regulations may be obtained from the DEQ web page at

Contacts www.deq.state.or.us. All inquiries about this permit should be directed to the regional office for the area where the source is located. The Department's regional offices are as follows:

Counties	Office Address and Telephone
Clackamas, Clatsop, Columbia, Multnomah, Tillamook, and Washington	Department of Environmental Quality Portland Office 2020 SW 4th Avenue, Suite 400 Portland, OR 97201-4987 Telephone: (503) 229-5554
Benton, Lincoln, Linn, Marion, Polk, and Yamhill	Department of Environmental Quality Salem Office 750 Front Street NE, Suite 120 Salem, OR 97301-1039 Telephone: (503) 378-8240
Coos, Curry, and Western Douglas	Department of Environmental Quality Coos Bay Office 340 N Front Street Coos Bay, OR 97420-2325 Telephone: (541) 269-2721
Eastern Douglas, Jackson, and Josephine	Department of Environmental Quality Medford Office 201 W Main Street, Suite 2-D Medford, OR 97501-2744 Telephone: (541) 776-6010
Crook, Deschutes, Harney, Hood River, Jefferson, Klamath, Lake, Sherman, Wasco, and Wheeler	Department of Environmental Quality Bend Office 300 SE Reed Market Road~~2146 NE 4th Street, Suite 104~~ Bend, OR 977021~~1-3647~~ Telephone: (541) 388-6146
Baker, Gilliam, Grant, Malheur, Morrow, Umatilla, Union, and Wallowa	Department of Environmental Quality Pendleton Office 700 SE Emigrant Avenue, Suite 330 Pendleton, OR 97801-2597 Telephone: (541) 276-4063
~~Klamath and Lake~~	~~Department of Environmental Quality~~ ~~Klamath Falls Office~~ ~~700 Main Street, Suite 202~~ ~~Klamath Falls, OR 97601-6010~~ ~~Telephone: (541) 883-5603~~

10.0 FEES

10.1	**Annual Compliance Fee**	The Annual Compliance Determination Fee specified in OAR 340-216-0090, Table 2, Part 2(c) for a Class Two General ACDP is due on December 1 of each year this permit is in effect. An invoice indicating the amount, as determined by Department regulations, will be mailed prior to the above date.
10.2	**Change of Ownership or Company Name Fee**	The non-technical permit modification fee specified in OAR 340-216-0090, Table 2, Part 3(a) is due with an application for changing the ownership or the name of the company of a source assigned to this permit.
10.3	**Where to Submit Fees**	Fees must be submitted to: Department of Environmental Quality Business Office 811 SW Sixth Avenue Portland, Oregon 97204-1390

11.0 GENERAL CONDITIONS AND DISCLAIMERS

11.1	**Other Regulations**	In addition to the specific requirements listed in this permit, the permittee must comply with all other legal requirements enforceable by the Department.
11.2	**Conflicting Conditions**	In any instance in which there is an apparent conflict relative to conditions in this permit, the most stringent conditions apply.
11.3	**Masking of Emissions**	The permittee must not cause or permit the installation of any device or use any means designed to mask the emissions of an air contaminant that causes or is likely to cause detriment to health, safety, or welfare of any person or otherwise violate any other regulation or requirement.
11.4	**Department Access**	The permittee must allow the Department's representatives access to the plant site and pertinent records at all reasonable times for the purposes of performing inspections, surveys, collecting samples, obtaining data, reviewing and copying air contaminant emissions discharge records and conducting all necessary functions related to this permit in accordance with ORS 468-095.
11.5	**Permit Availability**	The permittee must have a copy of the permit available at the facility at all times.
11.6	**Open Burning**	The permittee may not conduct any open burning except as allowed by OAR 340 Division 264.
11.7	**Asbestos**	The permittee must comply with the asbestos abatement requirements in OAR 340, Division 248 for all activities involving

asbestos-containing materials, including, but not limit to, demolition, renovation, repair, construction, and maintenance.

11.8	**Property Rights**	The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations.
11.9	**Termination, Revocation, or Modification**	The Commission may modify or revoke this permit pursuant to OAR 340-216-0060(3) and (4).

12.0 ABBREVIATIONS, ACRONYMS, AND DEFINITIONS

Affected Source	Each solvent cleaning machine that uses any solvent containing halogenated HAP solvents, at a total concentration greater than 5%, to remove soils from the surfaces of materials. Buckets, pails and beakers with capacities of 2 gallons or less, are not considered solvent cleaning machines.
Air Blanket	The layer of air inside the freeboard located above the air/solvent interface.
Air Knife	A device that directs forced air at high pressure, high volume, or a combination of high pressure and high volume, through a small opening directly at the surface of a continuous web part. The purpose of this system is to remove the solvent film from the surfaces of the continuous web part.
Batch Cleaning Machine	A solvent cleaning machine in which individual parts or a set of parts move through the entire cleaning cycle before new parts are introduced into the machine.
Combination Squeegee and Air-knife	A system consisting of a combination of a squeegee system and an air-knife system within a single enclosure.
Continuous Web Cleaning Machine	A solvent cleaning machine in which parts such as film, coils, wire and metal strips are cleaned at speeds typically in excess of 11 feet per minute. Parts are generally uncoiled, cleaned such that the same part is simultaneously entering and exiting the solvent application area of the solvent cleaning machine, and then recoiled or cut. For this subpart, all continuous web cleaning machines are considered to be a subset of in-line solvent cleaning machines.
Deposition	Emissions from an air pollutant source which are deposited upon the property of another.

Dwell	The technique of holding parts within the freeboard area but above the vapor zone in the machine. Dwell occurs after cleaning to allow solvent to drain from the part or parts baskets back into the machine.
Existing Source	Any affected source that is not a new source.
Freeboard Area	The area within the cleaning machine that extends from the solvent/air interface to the top of the cleaning machine.
Freeboard Height	The distance from the solvent/air interface, as measured during the idling mode to the top of the cleaning machine.
Freeboard Ratio	The ratio of the cleaning machine freeboard height to the smaller interior dimension (length, width, or diameter) of the solvent cleaning machine.
Freeboard Refrigeration Device	A set of secondary coils mounted in the freeboard area that carries a substance to provide a chilled air blanket above the solvent vapor. A primary condenser capable of meeting the requirements of 40 CFR 63.463(e)(2)(i) (see Table 4) is defined as both a freeboard refrigeration device and a primary condenser.
Fugitive Emissions	Discharges of air pollutants through doors, windows, or other uncontrolled exit points.
Halogenated HAP Solvent	Any solvent that contains methylene chloride, perchloroethylene, chloroform, 1,1,1-trichloroethane, trichloroethylene, or carbon tetrachloride.
In-Line Cleaning Machine	A solvent cleaning machine that uses an automated parts handling system, typically a conveyor, to automatically provide a continuous supply of parts to be cleaned.
New Source	Any affected source that the construction or reconstruction of which is commenced after November 29, 1993.
Opacity	The degree to which an emission (smoke or dust) reduces transmission of light and obscures the view in the background.
Remote Reservoir Continuous Web Cleaning Machine	A continuous web cleaning machine in which there is no exposed solvent sump. In these units, the solvent is pumped from an enclosed chamber and is typically applied to the continuous web part through a nozzle or series of nozzles. That solvent then drains from the part and is collected and recycled through the machine, allowing no solvent to pool in the work or cleaning area.
Solvent/Air Interface	Vapor machine: the location of contact between the concentrated solvent vapor layer and the air; or mid-line height of the primary

	condenser coils. Cold machine: the location of contact between the liquid solvent and the air.
Solvent/Air Interface Area	Vapor machine: the surface area of the solvent vapor zone that is exposed to the air Cold machine: the surface area of the liquid solvent that is exposed to the air In-line machine: the total surface area of all the sumps.
Solvent Vapor Zone	The area from the solvent surface to the level that solvent vapor is condensed.
Squeegee System	A system that uses a series of pliable surfaces to remove the solvent film from the surfaces of the continuous web part. These pliable surfaces, called squeegees, are typically made of rubber or plastic media, and need to be periodically replaced to ensure continued proper function.
Superheated Part Technology	A system that is part of the continuous web process that heats the continuous web part either directly or indirectly to a temperature above the boiling point of the cleaning solvent. This could include a process step, such as a tooling die that heats the part as it is processed, as long as the part remains superheated through the cleaning machine.
Superheated Vapor System	A system using solvent heated past the boiling point to evaporate liquid solvent on cleaned parts prior to exiting the machine.
Vapor Cleaning Machine	A batch or in-line solvent cleaning machine that boils liquid solvent generating solvent vapor that is used as part of the cleaning or drying cycle.

ACDP	Air Contaminant Discharge Permit
ASTM	American Society for Testing and Materials
AQMA	Air Quality Maintenance Area
bbl	barrel (42 gal)
calendar year	The 12-month period beginning January 1st and ending December 31st
CFR	Code of Federal Regulations
CO	carbon monoxide
date	mm/dd/yy
DEQ	Oregon Department of Environmental Quality
dscf	dry standard cubic foot
EPA	US Environmental Protection Agency
FCAA	Federal Clean Air Act
gal	gallon(s)
gr/dscf	grains per dry standard cubic foot
HAP	Hazardous Air Pollutant as

	defined by OAR 340-244-0040
ID	identification number
I&M	inspection and maintenance
lb	pound(s)
MMBtu	million British thermal units
NA	not applicable
NESHAP	National Emissions Standards for Hazardous Air Pollutants
NO_X	nitrogen oxides
NSPS	New Source Performance Standard
NSR	New Source Review
O_2	oxygen
OAR	Oregon Administrative Rules
ORS	Oregon Revised Statutes
O&M	operation and maintenance
Pb	lead
PCD	pollution control device
PM	particulate matter
PM_{10}	particulate matter less than 10 microns in size
ppm	part per million
ppmv	part per million by volume
PSD	Prevention of Significant Deterioration
PSEL	Plant Site Emission Limit
PTE	Potential to Emit
RACT	Reasonably Available Control Technology
scf	standard cubic foot
SER	Significant Emission Rate
SERP	Source Emission Reduction Plan
SIC	Standard Industrial Code
SIP	State Implementation Plan
SO_2	sulfur dioxide
Special Control Area	as defined in OAR 340-204-070
VE	visible emissions
VOC	volatile organic compound
year	A period consisting of any 12-consecutive calendar months

13.0 ATTACHMENT 1: CONTROL COMBINATION OPTIONS

for batch vapor, in line, and remote reservoir continuous web cleaning machines

Cleaning Machine Type	Option	Working Mode Cover	1.0 Freeboard Ratio	Super Heated Vapor	Freeboard Refrigeration Device	Reduced Room Draft	Carbon Adsorber	Dwell	Super Heated Parts
Batch Vapor Cleaning Machine ≤ 1.21 m^2 [≤ 13 ft^2]	1	X	X	X					
	2			X	X				
	3	X			X				
	4		X	X		X			
	5				X	X			
	6		X		X				
	7				X			X	
	8		X			X		X	
	9				X		X		
	10		X	X			X		
Batch Vapor Cleaning Machine > 1.21 m^2 [> 13 ft^2]	1		X	X	X				
	2				X	X		X	
	3	X		X	X				
	4		X	X		X			
	5			X	X	X			
	6		X		X	X			
	7			X	X		X		
In-Line - Existing	1		X	X					
	2		X		X				
	3				X			X	
	4						X	X	
In-Line - New	1			X	X				
	2				X		X		
	3			X			X		
Continuous Web -Existing	1		X						X
	2		X	X					
	3		X		X				
	4						X		
Continuous Web - New	1			X	X				
	2				X				X
	3				X		X		
	4			X			X		
	5						X		X
Remote Reservoir Web - Continuous	1		X						X
	2		X	X					
	3		X		X				
	4						X		
Remote Reservoir Web – New	1			X					
	2								X
	3						X		

GENERAL
AIR CONTAMINANT DISCHARGE PERMIT

Department of Environmental Quality
Air Quality Division
811 SW Sixth Avenue
Portland, OR 97204-1390
Telephone: (503) 229-5359

This permit is issued in accordance with the provisions of ORS 468A.040 and incorporated into OAR 340-216-0060 by the Environmental Quality Commission on ~~August 30, 2001~~December 12, 2008 for the following source category:

Halogenated solvent degreasers using batch cold, batch vapor, and in-line cleaning machines subject to Part 63, Title 40 of Code of Federal Regulations, Subpart T as adopted under OAR 340-244-0220.

Table of Contents

1.0 PERMIT ASSIGNMENT

1.1 Qualifications

All of the following conditions must be met in order to qualify for assignment to this General Air Contaminant Discharge Permit (ACDP):

a. The permittee is performing halogenated solvent degreasing as listed on the cover page of this permit, including supporting activities.

b. A Simple or Standard ACDP is not required for the source.

c. The source is not having ongoing, recurring or serious compliance problems.

1.2 Assignment

The Department will assign qualifying permittees to this permit that have and maintain a good record of compliance with the Department's Air Quality regulations and that the Department determines would be appropriately regulated by a General ACDP. The Department may rescind assignment if the permittee no longer meets the requirements of ~~OAR 340-216-0060 and the conditions of~~ this permit.

1.3 Permitted Activities

The permittee is allowed to discharge air contaminants from processes and activities related to the air contaminant source(s) listed on the first page of this permit until this permit expires, is modified, revoked or rescinded as long as conditions of this permit are complied with. If there are other emissions activities occurring at the site besides those listed on the cover page of this permit, the permittee may be required to obtain a Simple or Standard ACDP~~Permit~~ or additional General ACDP(s)~~Permits~~, if applicable.

2.0 GENERAL EMISSION STANDARDS AND LIMITS

2.1 Visible Emissions

The permittee must comply with the following visible emission limits, as applicable:

a. Emissions from any air contaminant source must not equal or exceed 20% opacity for a period aggregating more than 3 minutes in any one hour.

b. In Clackamas, Columbia, Multnomah, or Washington Counties, emissions from any air contaminant source other than fuel burning equipment must not equal or exceed 20% opacity for a period aggregating more than 30 seconds in any one hour.

2.2 Particulate Matter Emissions

The permittee must comply with the following particulate matter emission limits, as applicable:

a. Particulate matter emissions from any air contaminant source, other than fuel burning equipment and fugitive emission sources, installed on or before June 1, 1970, must not exceed 0.2 grains per dry standard cubic foot.

b. Particulate matter emissions from any air contaminant source, other than fuel burning equipment and fugitive emission sources, installed after June 1, 1970, must not exceed 0.1 grains per dry standard cubic foot.

2.3 Fugitive Emissions

The permittee must take reasonable precautions to~~for~~ prevent~~ing~~ fugitive dust emissions~~ from becoming a nuisance~~, such as but not limited to:

a. Treating vehicular traffic areas of the plant site under the control of the permittee.

b. Operating all air contaminant-generating processes so that fugitive type dust associated with the operation will be adequately controlled at all times.

c. Storing collected materials from air pollution control equipment in a covered container or other method equally effective in preventing the material from becoming airborne during storage and transfer.

2.4 Particulate Matter Fallout

The permittee must not cause or permit the emission of any particulate matter larger than 250 microns in size at sufficient duration or quantity, as to create an observable deposition upon the real property of another person. The Department will verify that the deposition exists and will notify the permittee that the deposition must be controlled.

2.5 Nuisance and Odors

The permittee must not cause or allow air contaminants from any source to cause a nuisance. Nuisance conditions will be verified by Department personnel.

A compliance handbook is available from the DEQ's Small Business Technical Assistance Program by calling (503) 229-6147.

3.0 SPECIFIC EMISSION STANDARDS AND LIMITS

3.1 HAP Emissions Limit

Hazardous air pollutant (HAP) emissions must not exceed the following limits for each 12-consecutive calendar month period:

a. 9.9 tons for each individual HAP; and

b. 24.9 tons for combined HAPs.

3.2 Halogenated Solvent

a. **Batch Cold Cleaning Machines:** For each affected batch cold cleaning machine, the permittee must comply with the following requirements, as applicable:

i. Immersion cold cleaner: Employ a tightly fitting cover that must be closed at all times except during parts entry and removal, and one of the following controls:

- A 0.75 freeboard ratio (or greater); or
- A 2.5 cm [1 inch] water layer.

ii. Remote reservoir cold cleaner: Employ a tightly fitting cover over the solvent sump that must be closed at all times except during the cleaning of parts.

b. **Batch Vapor and In-line Cleaning Machines**: For each affected batch vapor or in-line cleaning machine, the permittee must comply with either the control requirements or the alternative standards.

i. Control Requirements: The permittee must employ one of the control combinations listed in Attachment 1 or other equivalent methods of control as determined using the procedures in 40 CFR 63.469.

ii. Alternative Standards/Overall Emission Limits: For each batch vapor or in-line cleaning machine, as an alternative to the control requirements in Condition 3.2.b., the permittee can demonstrate that the emissions from the cleaning machine are equal to or less than the following overall emission limits.

Affected Machine	Average Monthly Emission Limit*
Batch vapor degreaser	150 kg/m^2 or 30.7 lb/ft^2

Existing In-line degreaser	153 kg/m^2 or 31.4 lb/ft^2
New In-line degreaser	99 kg/m^2 or 20 lb/ft^2

*based on a 3-month rolling average.

If the cleaning machine is a batch vapor cleaning machine and does not have a solvent/air interface, the permittee must determine the overall emission limit according to 40 CFR 63.464(a)(2). Any combination of control techniques may be used to meet the overall emission limits.

iii. Alternative Standards/Overall Control System Efficiency: For each continuous web or remote reservoir continuous web cleaning machine, as an alternative to the control requirements in Condition 3.2.b., the permittee can demonstrate an overall cleaning system control efficiency of 70 percent or greater using the procedures in Condition 6.3. This demonstration can be made for either a single cleaning machine or for a solvent cleaning system that contains one or more cleaning machines and ancillary equipment, such as storage tanks and distillation units. If the demonstration is made for a cleaning system, the facility must identify any modifications required to the procedures in Condition 6.3 and they must be approved.

3.3 General Design Requirements

For each batch vapor or in-line cleaning machine complying with the control requirements in Condition 3.2a, the permittee must ensure the machine conforms to the following design requirements. For each continuous web or remote reservoir continuous web cleaning machine, the permittee must comply with the requirements in Condition 3.4 or 3.5, as appropriate, in lieu of complying with Condition 3.3.

a. **Air disturbances**: Each cleaning machine must be designed or operated to meet the following control equipment or technique requirements:

i. A reduced room draft of 50 feet per minute or less.

ii. An idling and downtime mode cover that may be readily opened or closed, that completely covers the cleaning machine openings when in place, and is free of cracks, holes or other defects; or

b. **Freeboard ratio:** Each cleaning machine must have a freeboard ratio of 0.75 or greater.

i. Parts handling system: Each cleaning machine must have an automated parts handling system capable of moving parts or parts baskets at a speed of 11 feet per minute or less from the initial loading of parts through removal of cleaned parts.

ii. Sump heat shutoff: Each vapor cleaning machine must be equipped with a device that shuts off the sump heat if the sump liquid solvent level drops to the sump heater coils. This requirement does not apply to a vapor cleaning machine that uses steam to heat the solvent.

iii. Vapor level control: Each vapor cleaning machine must be equipped with a vapor level control device that shuts off sump heat if the vapor level rises above the height of the primary condenser.

iv. Vapor cleaning machines: Each vapor cleaning machine must have a primary condenser.

v. Lip exhaust: Each cleaning machine that uses lip exhaust must be designed and operates to route all collected solvent vapors through a properly operated and maintained carbon adsorber.

3.4 Design Requirements for Continuous Web Cleaning Machines

For each continuous web cleaning machine complying with the control requirements in Condition 3.2a, the permittee must ensure the machine conforms to the following design requirements.

a. **Air disturbances:** Each cleaning machine must meet one of the following control equipment or technique requirements.

i. An idling and downtime mode cover that may be readily opened or closed; that completely covers the cleaning machine openings when in place; and is free of cracks, holes, and other defects. A continuous web part that completely occupies an entry or exit port when the machine is idle is considered to meet this requirement.

ii. A reduced room draft of 50 feet per minute or less.

iii. Gasketed or leakproof doors that separate both the continuous web part feed reel and take-up reel from the room atmosphere if the doors are checked according to the requirements of Condition 6.2c.

iv. A cleaning machine that is demonstrated to be under negative pressure during idling and downtime and is vented to a carbon adsorption system that meets either the overall control system efficiency of Condition 3.2b.iii or Condition 6.2g.

b. **Freeboard ratio:** Each continuous web cleaning machine must have a freeboard ratio of 0.75 or greater unless that cleaning machine is a remote reservoir continuous web cleaning machine.

c. **Automated parts handling system:** Each cleaning machine must have an automated parts handling system capable of moving parts or part baskets at a speed of 11 feet per minute or less from the initial loading of parts through removal of cleaned parts, unless the cleaning machine is a continuous web cleaning machine that has a squeegee system or air knife system installed, maintained, and operated on the continuous web cleaning machine meeting the requirements of Condition 6.2.

d. **Sump heat shutoff:** Each vapor cleaning machine must be equipped with a device that shuts off the sump heat if the sump liquid solvent level drops to the sump heater coils. This requirement does not apply to a vapor cleaning machine that uses steam to heat the solvent.

e. **Vapor level control:** Each vapor cleaning machine must be equipped with a vapor level control device that shuts off sump heat if the vapor level in the vapor cleaning machine rises above the height of the primary condenser.

f. **Primary condenser:** Each vapor cleaning machine must have a primary condenser.

g. **Exhaust:** Each cleaning machine that uses lip exhaust or any other exhaust within the solvent cleaning machine must be designed and operated to route all collected solvent vapors through a properly operated and maintained carbon adsorber that meets either the overall control system efficiency of Condition 3.2b.iii or Condition 6.2g.

3.5 Design Requirements for Remote Reservoir Continuous Web

For each remote reservoir continuous web cleaning machine complying with the control requirements in Condition 3.2a, the permittee must ensure the machine conforms to the following design requirements:

Cleaning Machines

a. **Automated parts handling system:** Each cleaning machine must have an automated parts handling system capable of moving parts or parts baskets at a speed of 3.4 meters per minute (11 feet per minute) or less from the initial loading of parts through removal of cleaned parts, unless the cleaning machine is a continuous web cleaning machine that has a squeegee system or air knife system installed, maintained, and operated on the continuous web cleaning machine meeting the requirements of Condition 6.2.

b. **Sump heat shutoff:** Each vapor cleaning machine must be equipped with a device that shuts off the sump heat if the sump liquid solvent level drops to the sump heater coils.

c. **Vapor level control:** Each vapor cleaning machine must be equipped with a vapor level control device that shuts off sump heat if the vapor level in the vapor cleaning machine rises above the height of the primary condenser.

d. **Primary condenser:** Each vapor cleaning machine must have a primary condenser.

e. **Exhaust:** Each cleaning machine that uses lip exhaust or any other exhaust within the solvent cleaning machine must be designed and operated to route all collected solvent vapors through a properly operated and maintained carbon adsorber that meets either the overall control system efficiency of Condition 3.2b.iii or Condition 6.2g.

3.6 Facility-Wide Perchloroethylene Emission Limit

The permittee must ensure that the total emissions of perchloroethylene (PCE) used at the affected facility are equal to or less than 4,800 kg (10,582 lbs) on a 12-month rolling average, according to the following schedule.

a. Each affected facility that was constructed or reconstructed on or before August 17, 2006, must be in compliance with the facility-wide perchloroethylene emission limit no later than May 3, 2010.

b. Each affected facility that was constructed or reconstructed on or after August 17, 2006, must be in compliance with the facility-wide perchloroethylene emission limit prior to being assigned to this permit or immediately upon startup, whichever is later.

4.0 OPERATION AND MAINTENANCE REQUIREMENTS

4.1 Work practices for Batch Cold Cleaning Machines

For each immersion cold cleaner complying with the freeboard ratio requirement or each remote reservoir cold cleaner, the permittee must meet all the following work and operational practices:

a. **Waste collection and storage:** All waste solvent must be collected and stored in closed containers. The closed container may contain a device that allows pressure relief, but does not allow liquid solvent to drain from the container.

b. **Flushing:** If a flexible hose or flushing device is used, flushing must be performed only within the freeboard area of the solvent cleaning machine.

c. **Parts drainage:** The permittee must drain solvent cleaned parts for 15 seconds or until dripping has stopped, whichever is longer. Parts having cavities or blind holes must be tipped or rotated while draining.

d. **Fill line:** The permittee must ensure that the solvent level does not exceed the fill line.

e. **Spills:** Spills during solvent transfer must be wiped up immediately. The wipe rags must be stored in covered containers meeting the requirements of Condition 4.1a.

f. **Air- or pump-agitated solvent bath:** When an air- or pump-agitated solvent bath is used, the permittee must ensure that the agitator is operated to produce a rolling motion of the solvent but not observable splashing against tank walls or parts being cleaned.

g. **Room draft:** The permittee must ensure that, when the cover is open, the cold cleaning machine is not exposed to drafts greater than 132 feet per minute as measured between 3.3 and 6.6 feet upwind and at the same elevation as the tank lip.

h. **Porous materials:** Except, as provided in Condition 4.1i, sponges, fabric, wood, and paper products must not be cleaned.

i. **Porous material exception:** The prohibition in Condition 4.1h does not apply to the cleaning of porous materials that are part of polychlorinated biphenyl (PCB) laden transformers if those transformers are handled throughout the cleaning process and disposed of in compliance with an approved PCB disposal permit issued in accordance with the Toxic Substances Control Act.

4.2 Work practices for Batch Vapor and In-Line Cleaning Machines

For each batch vapor or in-line cleaning machine complying with the control requirements in Condition 3.2a, the permittee must meet all the following work and operational practices. For each continuous web cleaning machine, the permittee must comply with the requirements in Conditions 4.3 or 4.4, as appropriate, in lieu of complying with Condition 4.2.

a. **Air disturbances:** Control air disturbances across the cleaning machine openings by incorporating the following control equipment or techniques:

   i. Cover(s) to each solvent cleaning machine must be in place during the idling mode, and during the downtime mode unless either the solvent has been removed or maintenance or monitoring is being performed that requires the cover(s) to not be in place; or

   ii. A reduced room draft of 50 feet per minute or less.

b. **Parts coverage:** The parts baskets or the parts being cleaned in an open-top batch vapor cleaning machine must not occupy more than 50 percent of the solvent/air interface area unless the parts baskets or parts are introduced at a speed of 3.0 feet per minute or less.

c. **Spraying operations:** Any spraying must be done within the vapor zone or within a section of the solvent cleaning machine that is not directly exposed to the ambient air.

d. **Parts orientation:** Parts must be oriented so that the solvent drains from them freely. Parts having cavities or blind holes must be tipped or rotated before being removed from any solvent cleaning machine unless an equally effective approach has been approved.

e. **Parts drainage:** Parts baskets or parts must not be removed from any solvent cleaning machine until dripping has stopped.

f. **Startup:** During shutdown of each vapor cleaning machine, the sump heater must be turned off and the solvent vapor layer allowed to collapse before the primary condenser is turned off.

g. **Shutdown:** During shutdown of each vapor cleaning machine, the sump heater must be turned off and the solvent vapor layer allowed to collapse before the primary condenser is turned off.

h. **Solvent addition or drainage:** When solvent is added or drained from any solvent cleaning machine, the solvent must be transferred using threaded or other leakproof couplings and the end of the pipe in the solvent sump must be located beneath the liquid solvent surface.

i. **Maintenance:** Each solvent cleaning machine and associated controls must be maintained as recommended by the manufacturers of the equipment or using alternative maintenance practices that have been demonstrated to achieve the same or better results as those recommended by the manufacturer.

j. **Operator test:** Each operator of a solvent cleaning machine must complete and pass the applicable sections of the test of solvent cleaning procedures in Appendix A to 40 CFR part 63 subpart T if requested during an inspection.

k. **Waste collection and storage:** Waste solvent, still bottoms, and sump bottoms must be collected and stored in closed containers. The closed containers may contain a device that would allow pressure relief, but would not allow liquid solvent to drain from the container.

l. **Porous materials:** Sponges, fabric, wood, and paper products must not be cleaned.

4.3 Work Practices for Continuous Cleaning Machines

For each continuous web cleaning machine complying with the control requirements in Condition 3.2a, the permittee must comply with the following provisions:

a. **Air disturbances:** Control air disturbances across the cleaning machine opening(s) by incorporating one of the following control equipment or techniques:

   i. Idling and downtime cover: Cover(s) to each solvent cleaning machine must be in place during the idling mode and during the downtime mode unless either the solvent has been removed from the machine or maintenance or monitoring is being performed that requires the cover(s) in place. A continuous web part that completely occupies an entry or exit port when the machine is idle is considered to meet this requirement.

ii. Reduced room draft: A reduced room draft of 50 feet per minute or less.

iii. Gasketed or leakproof doors or covers: Gasketed or leakproof doors or covers that separate both the continuous web part feed reel and take-up reel from the room atmosphere if the doors are checked according to the requirements of Condition 6.2c.

iv. Negative pressure: A cleaning machine that is demonstrated to be under negative pressure during idling and downtime and is vented to a carbon adsorption system that meets either the overall control system efficiency of Condition 3.2b.iii or Condition 6.2g.

b. **Spraying operations:** Any spraying operations must be conducted in a section of the solvent cleaning machine that is not directly exposed to the ambient air or within a machine having a door or cover that meets the requirements of Condition 4.2a.

c. **Startup:** During startup of each vapor cleaning machine, the primary condenser must be turned on before the sump heater.

d. **Shutdown:** During shutdown of each vapor cleaning machine, the sump heater must be turned off and the solvent vapor layer allowed to collapse before the primary condenser is turned off.

e. **Solvent addition or drainage:** When solvent is added or drained from any solvent cleaning machine, the solvent must be transferred using threaded or other leakproof couplings, and the end of the pipe in the solvent sump must be located beneath the liquid solvent surface.

f. **Maintenance:** Each solvent cleaning machine and associated controls must be maintained as recommended by the manufacturers of the equipment or using alternative maintenance practices that have been demonstrated to achieve the same or better results as those recommended by the manufacturer.

g. **Waste collection and storage:** Waste solvent, still bottoms, sump bottoms, and waste absorbent materials used in the cleaning process for continuous web cleaning machines must be collected and stored in waste containers. The closed containers may contain a device that would allow pressure relief, but would not allow liquid solvent to drain from the container.

h. **Porous materials:** Except as provided in Condition 4.3i, sponges, fabric, wood, and paper products must not be cleaned.

i. **Porous material exemption:** The prohibition in Condition 4.3h does not apply to absorbent materials that are used as part of the cleaning process of continuous web cleaning machines, including rollers and roller covers.

4.4 Work Practices for Remote Reservoir Continuous Web Cleaning Machines

For each remote reservoir continuous web cleaning machine complying with the control requirements in Condition 3.2a, the permittee must comply with the following provisions:

a. **Spraying operations:** Any spraying operations must be conducted in a section of the solvent cleaning machine that is not directly exposed to the ambient air or within a machine having a door or cover that meets the requirements of Condition 4.2a.

b. **Startup:** During startup of each vapor cleaning machine, the primary condenser must be turned on before the sump heater.

c. **Shutdown:** During shutdown of each vapor cleaning machine, the sump heater must be turned off and the solvent vapor layer allowed to collapse before the primary condenser is turned off.

d. **Solvent addition or drainage:** When solvent is added or drained from any solvent cleaning machine, the solvent must be transferred using threaded or other leakproof couplings, and the end of the pipe in the solvent sump must be located beneath the liquid solvent surface.

e. **Maintenance:** Each solvent cleaning machine and associated controls must be maintained as recommended by the manufacturers of the equipment or using alternative maintenance practices that have been demonstrated to achieve the same or better results as those recommended by the manufacturer.

f. **Waste collection and storage:** Waste solvent, still bottoms, sump bottoms, and waste absorbent materials used in the cleaning process for continuous web cleaning machines must be collected and stored in waste containers. The closed containers may contain a device that would allow pressure relief, but would not allow liquid solvent to drain from the container.

g. **Porous materials:** Except as provided in Condition 4.4h, sponges, fabric, wood, and paper products must not be cleaned.

h. **Porous material exemption:** The prohibition in Condition 4.4g does not apply to absorbent materials that are used as part of the cleaning process of continuous web cleaning machines, including rollers and roller covers.

5.0 PLANT SITE EMISSION LIMITS

5.1	**Plant Site Emission Limits (PSEL)**	Plant site emissions must not exceed 39 tons of VOC per year.
5.2	**Annual Period**	The annual plant site emissions limits apply to any 12-consecutive calendar month period.

6.0 COMPLIANCE DEMONSTRATION

6.1 Overall Emission Limit Compliance Demonstration

a. **Solvent maintenance:** For each batch vapor or in-line solvent cleaning machine complying with the overall emission limit in Condition 3.2b.ii, on the first operating day of the month, the permittee must ensure that the solvent cleaning machine system contains only clean liquid solvent. This includes, but is not limited to, fresh unused solvent, recycled solvent and used solvent that has been cleaned of soils. A fill line must be indicated during the first month the measurements are made. The solvent level within the machine must be returned to the same fill-line each month, immediately prior to calculating monthly emissions as specified in Condition 6.1b. The solvent cleaning machine does not have to be emptied and filled with fresh unused solvent prior to the calculations.

b. **Solvent emissions:** Using the records of all solvent additions and deletions for the previous monthly reporting period, determine solvent emissions (Ei) using equation 1 for cleaning machines with a solvent/air interface and equation 2 for cleaning machines without a solvent/air interface:

$$Ei = \frac{SAi - LSRi - SSRi}{AREAi} \qquad (1)$$

$$En = SAi - LSRi - SSRi \qquad (2)$$

E_i = the total halogenated HAP solvent emissions from the solvent cleaning machine during the most recent monthly reporting period i, (kilograms of solvent per square meter of solvent/air interface area per month)

E_n = the total halogenated HAP solvent emissions from the solvent cleaning machine during the most recent monthly reporting period i, (kilograms of solvent per month)

Sa_i = the total amount of halogenated HAP liquid solvent added to the solvent cleaning machine during the most recent monthly reporting period i, (kilograms of solvent per month)

LSR_i = the total amount of halogenated HAP liquid solvent removed from the solvent cleaning machine during the most recent monthly reporting period i, (kilograms of solvent per month)

SSR_i = the total amount of halogenated HAP solvent removed from the solvent cleaning machine in solid waste during the most recent monthly reporting period i, (kilograms of solvent per month)

$AREA_i$ = the solvent/air interface area of the solvent cleaning machine (square meters)

c. **Solvent removed:** Determine SSR_i from tests conducted using EPA Reference Method 25d or by engineering calculations included in the compliance report.

d. **3-month rolling average solvent emissions:** Determine the monthly rolling average, EA, for the 3 month period ending with the most recent reporting period using equation 3 for cleaning machines with a solvent/air interface or equation 4 for cleaning machines without a solvent/air interface:

$$EAi = \frac{\sum_{j=1}^{3} Ei}{3} \qquad (3)$$

$$EAn = \frac{\sum_{j=1}^{3} En}{3} \qquad (4)$$

Where:

Ea_i	=	the average halogenated HAP solvent emissions over the preceding 3 monthly reporting periods, (kilograms of solvent per square meter of solvent/air interface area per month)
Ea_n	=	the average halogenated HAP solvent emissions over the preceding 3 monthly reporting periods, (kilograms of solvent per month)
E_i	=	halogenated HAP solvent emissions for each month (j) for the most recent 3 monthly reporting periods (kilograms of solvent per square meter of solvent/air interface area)
E_n	=	halogenated HAP solvent emissions for each month (j) for the most recent 3 monthly reporting periods (kilograms of solvent per month)
j=1	=	the most recent monthly reporting period
j=2	=	the monthly reporting period immediately prior to j=1
j=3	=	the monthly reporting period immediately prior to j=2

6.2 Control Requirements, Design Requirements, and Work Practices Compliance Demonstration

For each batch vapor or in-line cleaning machine complying with the control requirements in Condition 3.2a, the permittee must determine, during each monitoring period, whether each control device used to comply with the control requirements in Condition 3.2a, design requirements in Conditions 3.3, 3.4, and 3.5, and work practices in Conditions 4.2, 4.3, and 4.4 meets the following requirements. The type and frequency of monitoring will be dictated by the compliance method chosen by the permittee.

a. **Freeboard refrigeration**:

i. Freeboard refrigeration maintenance: The permittee must ensure that the chilled air blanket temperature, measured at the center of the air blanket using a thermometer or thermocouple, is no greater than 30 percent of the solvent's boiling point during the idling mode.

ii. Freeboard refrigeration temperature monitoring: The permittee must determine and record the temperature on a weekly basis.

b. **Reduced room draft**:

i. Room draft measurement: The permittee must ensure that the flow or movement of the air across the top of the freeboard area of the solvent cleaning machine enclosure does not exceed 50 feet per minute at any time.

ii. Room draft maintenance: The permittee must establish and maintain the operating conditions under which the speed was demonstrated to be 50 feet per minute or less.

iii. Room draft monitoring: The permittee must conduct monitoring and record the results as follows:

If reduced room draft is maintained by controlling room parameters (i.e., redirecting fans, closing doors and windows, etc.) the permittee must conduct an initial monitoring test of the windspeed and of room parameters, quarterly monitoring of windspeed, and weekly monitoring of room parameters as follows:

- Measure the windspeed within 6 inches above the top of the freeboard area of the solvent cleaning machine using the following procedures:
- Determine the direction of the wind current by slowly rotating a velometer or similar device until the maximum speed is located.
- Orient a velometer in the direction of the wind current at each of the four corners of the machine.
- Record the reading for each corner.

- Average the values obtained at each corner and record the average wind speed.
- Monitor on a weekly basis the room parameters established during the initial compliance test that are used to achieve the reduced room draft.

If an enclosure (full or partial) is used to achieve a reduced room draft, the permittee must conduct an initial monitoring test and, thereafter, monthly monitoring tests of the windspeed within the enclosure using the following procedure and a monthly visual inspection of the enclosure to determine if it is free of cracks, holes and other defects.

- Determine the direction of the wind current in the enclosure by slowly rotating a velometer inside the entrance to the enclosure until the maximum speed is located.
- Record the maximum wind speed.

c. **Working-mode cover**:

i. Cover Operation: The permittee must ensure that the cover opens only for part entrance and removal and completely covers the cleaning machine openings when closed.

ii. Cover maintenance: The permittee must ensure that the cover is maintained free of cracks, holes, and other defects.

iii. Cover monitoring: The permittee must inspect and record the results of the inspection on a monthly basis to determine if the cover is opening and closing properly, completely covers the openings when closed, and is free of cracks, holes, and other defects.

d. **Idling-mode cover**:

i. Cover operation: The permittee must ensure that the cover is in place whenever parts are not in the solvent cleaning machine and completely covers the cleaning machine openings when in place.

ii. Cover maintenance: The permittee must ensure that the cover is maintained free of cracks, holes, and other defects.

iii. Cover monitoring: The permittee must inspect and record the results of the inspection on a monthly basis to determine if the cover is opening and closing properly, completely covers the openings when closed, and is free of cracks, holes, and other defects.

e. **Dwell**:

i. Determination of appropriate dwell time: The permittee must determine the amount of time for the part or parts basket to cease dripping once placed in the vapor zone for each type of part or parts basket, or using the most complex part type. The proper dwell time for parts to remain in the freeboard area above the vapor zone is no less than 35 percent of the time determined. The parts or parts basket used for this determination must be at room temperature before being placed in the vapor zone.

ii. Dwell time maintenance: The permittee must ensure that, after cleaning, each part is held in the solvent cleaning machine freeboard area above the vapor zone for the dwell time determined for that particular part or parts basket, or for the maximum dwell time determined using the most complex part type or parts basket.

iii. Dwell time monitoring: The permittee must determine and record the actual dwell time, on a monthly basis, by measuring the period of time that parts are held within the freeboard area of the solvent cleaning machine after cleaning.

f. **Superheated vapor system**:

i. Superheated vapor system maintenance: The permittee must ensure that the temperature of the solvent vapor at the center of the superheated vapor zone, using a thermometer or thermocouple, is at least 10 ^{o}F above the solvent's boiling point in the idling mode. The permittee must determine and record the temperature on a weekly basis.

ii. Superheated vapor system dwell time: The permittee must ensure that the manufacturer's specifications for determining the minimum proper dwell time within the superheated vapor system is followed. The permittee must ensure that the parts remain within the superheated vapor for at least the minimum proper dwell time.

iii. Superheated vapor system temperature monitoring: The permittee must determine and record the temperature on a weekly basis.

g. **Carbon adsorber:** If a carbon adsorber in conjunction with a lip exhaust or other exhaust internal to the cleaning machine is used to comply with these standards, the permittee must comply with the following requirements.

i. Carbon adsorber maintenance: The permittee must ensure that the concentration of organic solvent in the exhaust from this device does not exceed 100 parts per million of any halogenated HAP compound as measured. If the halogenated HAP solvent concentration in the carbon adsorber exhaust exceeds 100 parts per million, the permittee must adjust the desorption schedule or replace the disposable canister, if not a regenerative system, so that the exhaust concentration of the halogenated HAP solvent is brought below 100 parts per million.

ii. Carbon adsorber operation: The permittee must ensure that the carbon adsorber bed is not bypassed during desorption.

iii. Lip exhaust location: The permittee must ensure that the lip exhaust is located above the solvent cleaning machine cover so that the cover closes below the lip exhaust level.

iv. Monitoring sampling port: The permittee must provide a sampling port for monitoring within the exhaust outlet of the carbon adsorber that is easily accessible and located at least 8 stack or duct diameters downstream form any flow disturbance such as a bend, expansion, contraction, or outlet; downstream from no other inlet; and 2 stack or duct diameters upstream from any flow disturbance such as a bend, expansion, contraction, inlet or outlet.

v. Carbon adsorber monitoring: The permittee must measure and record the concentration of halogenated HAP solvent in the exhaust of the carbon adsorber weekly with a colorimetric detector tube. This test must be conducted while the solvent cleaning machine is in the working mode and is venting to the carbon adsorber. The permittee must use a colorimetric detector tube designed to measure a concentration of 100 parts per million by volume of solvent in air to an accuracy of ±25 parts per million by volume. The permittee must use the colorimetric detector tube according to the manufacturer's instructions.

h. **Parts Handling System**:

i. Hoist speed determination: The permittee must determine the hoist speed by measuring the time it takes for the hoist to travel a measured distance. The speed is equal to the distance in feet divided by the time in meters divided by the time in minutes.

Hoist speed monitoring: The hoist speed determination must be done monthly. If after the first year, no exceedances of the hoist speed are measured, the permittee may begin monitoring the hoist speed quarterly. If an exceedance of the hoist speed occurs during quarterly monitoring, the monitoring frequency returns to monthly until another year of compliance without an exceedance is demonstrated. If the permittee can demonstrate in the initial compliance report that the hoist cannot exceed a speed of 11 feet per minute, the required monitoring frequency is quarterly, including during the first year of compliance.

i. **Superheated Part System**:

i. Superheated part system monitoring: If a superheated part system is used to comply with the control requirements in Condition 3.2a, the permittee must use a thermometer, thermocouple, or other temperature measurement device to measure the temperature of the continuous web part while it is in the solvent cleaning machine. This temperature can also be taken at the exit of the solvent cleaning machine.

ii. Alternative superheated part system monitoring: As alternative to complying with the preceding superheated part system monitoring, Condition 6.2.i.i, the permittee can provide data that demonstrate that the part temperature remains above the boiling point of the solvent at all times that the part is within the continuous web solvent cleaning machine. This data could include design and operating conditions such as information supporting any exothermic reaction inherent in the processing.

iii. Superheated part system maintenance: The permittee must ensure that the temperature of the continuous web part is at least 10 degrees Fahrenheit above the solvent boiling point while the part is traveling through the cleaning machine.

j. **Squeegee System:** If a squeegee system is used to comply with the continuous web or remote reservoir continuous web cleaning requirements of Condition 3.4c or 3.5a, the permittee must comply with the following requirements:

i. Maximum product throughput determination: Determine the appropriate maximum product throughput for the squeegees used in the squeegee system, as follows:

- Conduct daily visible inspections of the continuous web part. This monitoring must be conducted at the point where the continuous web part exits the squeegee system. It is not necessary for the squeegees to be new at the time monitoring is begun if the following conditions are met.
- The continuous web part leaving the squeegee system has no visible solvent film.
- The amount of continuous web that has been processed through the squeegees since the last replacement is known.
- Continue daily monitoring until a visible solvent film is noted on the continuous web part.

- Determine the length of continuous web product that has been cleaned using the squeegee since it was installed.
- The maximum product throughput is equal to the time it takes to clean 95 percent of the length of product determined above. This time period, in days, may vary depending on the amount of continuous web product cleaned each day.

ii. Squeegee monitoring: The permittee must visually inspect the continuous web part exiting the solvent cleaning machine to ensure that no solvent film is visible on the part. Record both results of the visible inspection and the length of continuous web product cleaned during the previous week.

iii. Product processed: Calculate the total amount of continuous web product processed since the squeegees were replaced and compare to the maximum product throughput for the squeegees.

iv. Squeegee replacement: Ensure squeegees are replaced at or before the maximum product throughput is attained.

v. Recalculation of maximum product throughput: Redetermine the maximum product throughput for the squeegees if any solvent film is visible on the continuous web part immediately after if exits the cleaning machine.

k. **Air Knife System:** If an air knife system is used to comply with the continuous web or remote reservoir continuous web cleaning requirements of Condition 3.4c or 3.5a, the permittee must comply with the following requirements.

i. Air knife parameter determination: Determine the air knife parameter and parameter value that demonstrate that the air knife is properly operating. An air knife is properly operating if no visible solvent film remains on the continuous web part after it exits the cleaning machine.

ii. Air knife parameter maintenance: Maintain the selected air knife parameter value at the level determined in the preceding air knife parameter in

Condition 6.2.k.i.

iii. Air knife monitoring: The permittee must visually inspect the continuous web part exiting the solvent cleaning machine to ensure that no solvent film is visible on the part.

iv. Redetermination of air knife parameter: Redetermine the proper air knife parameter value if any solvent film is visible on the continuous web part immediately after it exits the cleaning machine.

l. **Combination squeegee and air knife system:** If a combination squeegee and air knife system is used to comply with the continuous web or remote reservoir continuous web cleaning requirements of Condition 3.4c or 3.5a, the permittee must comply with the following requirements:

i. Squeegee air knife parameter determination: Determine the system parameter and value that demonstrate that the system is properly operating.

ii. Squeegee and air knife parameter maintenance: Maintain the selected parameter value at the level determined in the preceding squeegee air knife parameter determination, Condition 6.2.l.i.

iii. Squeegee and air knife monitoring: The permittee must visually inspect the continuous web part exiting the solvent cleaning machine to ensure that no solvent film is visible on the part.

iv. Redetermination of squeegee air knife parameter: Redetermine the proper parameter value if any solvent film is visible on the continuous web part immediately after it exits the cleaning machine.

6.3 Overall Control System Efficiency Compliance Demonstration

For each continuous web or remote reservoir continuous web cleaning machine complying with the overall control system efficiency in Condition 3.2b.iii, on the first operating day of the month, the permittee must ensure that the solvent cleaning machine system contains only clean liquid solvent. This includes, but is not limited to, fresh unused solvent, recycled solvent and used solvent that has been cleaned of soils. A fill line must be indicated during the first month the measurements are made. The solvent level within the machine must be returned to the same fill-line each month, immediately prior to calculating the overall cleaning system control efficiency. The solvent cleaning machine does not have to be emptied and filled with fresh unused solvent prior to the calculations.

a. **Overall control system efficiency determination:** For each continuous web or remote reservoir continuous web cleaning machine complying with the overall control system efficiency in Condition 3.2b.iii, the permittee must, on the first operating day of the month, determine the overall control system efficiency as follows.

Using the records of all solvent additions, solvent deletions, and solvent recovered from the carbon adsorption system for the previous monthly reporting period required under Condition 7.4, determine overall control system efficiency (E_o) using the following equation.

$$E_o = R_i / (R_i + Sa_i - SSR_i)$$

Where:

E_o = overall cleaning system control efficiency

R_i = the total amount of halogenated HAP liquid solvent recovered from the carbon adsorption system and recycled to the solvent cleaning system during the most recent monthly reporting period i, (kilograms of solvent per month)

Sa_i = the total amount of halogenated HAP liquid solvent added to the solvent cleaning system during the most recent monthly reporting period i, (kilograms of solvent per month)

SSR_i = the total amount of halogenated HAP solvent removed from the solvent cleaning system in solid waste, obtained as described in Condition 6.1c, during the most recent monthly reporting period i, (kilograms of solvent per month)

6.4 HAP Emissions

a. Compliance with the individual HAP emission limit in Condition 3.1 is determined for each 12-consecutive calendar month period based on the following calculation for each HAP:

$$E_{HAPI} = [\sum(C_X * D_X * K_X) - W] \text{ x 1 ton /2000lb.}$$

where,

E_{HAPI} = Individual HAP emissions (ton/yr.);

I	=	Subscript I represents a specific HAP
Σ	=	Symbol meaning the sum of the emissions from all types of materials used.
C	=	Material usage for the period in gallons;
D	=	Material density in pounds per gallon;
K	=	Material HAP fraction in pounds of HAP per pound of material;
X	=	Subscript X represents a specific material;
W	=	Weight of HAP shipped offsite

b. Compliance with the combined HAP emission limit in Condition 3.1 is determined for each 12-consecutive calendar month period by summing the individual HAP emissions determined in a, above.

6.5 VOC Emissions

Compliance with the VOC PSEL in Condition 5.1 is determined for each 12-consecutive calendar month period based on the following calculation:

$$E_{VOC} = [\Sigma(C_X * D_X * K_X) - W] \times 1 \text{ ton }/2000\text{lb.}$$

where,

E_{VOC}	=	VOC emissions (ton/yr.);
Σ	=	Symbol meaning the sum of the emissions from all types of materials used.
C	=	Material usage for the period in gallons;
D	=	Material density in pounds per gallon;
K	=	Material VOC fraction in pounds of VOC per pound of material;
X	=	Subscript X represents a specific material;
W	=	Weight of VOC shipped offsite

6.6 Perchloroethylene Emissions

The permittee must, on the first operating day of every month, demonstrate compliance with the facility-wide perchloroethylene emission limit in Condition 3.6 on a 12-month rolling total basis using the following procedures.

a. The permittee must, on the first operating day of every month, ensure that each solvent cleaning machine system using perchloroethylene contains only clean liquid solvent. This includes, but is not limited to, fresh unused solvent, recycled solvent, and used solvent that has been cleaned of soiled materials. A fill line must be indicated during the first month the measurements are made. The solvent level within the machine must be returned to the same fill-line each month, immediately prior to calculating monthly emissions as follows. The solvent cleaning machine does not have to be emptied and filled with fresh unused solvent prior to the calculations.

b. The permittee must, on the first operating day of the month, using the records of all solvent additions and deletions for the previous month, determine perchloroethylene emissions (E_{unit}) from each solvent cleaning machine using the following equation:

$$E_{unit} = SA_i - LSR_i - SSR_i$$

where,

E_{unit} = the total perchloroethylene emissions from the solvent cleaning machine during the most recent month i, (kilograms of solvent per month);

SA_i = the total amount of perchloroethylene liquid solvent added to the solvent cleaning machine during the most recent month i, (kilograms of solvent per month);

LSR_i = the total amount of perchloroethylene liquid solvent removed from the solvent cleaning machine during the most recent month i, (kilograms of solvent per month);

SSR_i = the total amount of perchloroethylene solvent removed from the solvent cleaning machine in solid waste, obtained as described in Condition 6.6c, during the most recent month i, (kilograms of solvent per month).

c. The permittee must, on the first operating day of the month, determine SSR_i from tests conducted using EPA reference method 25d or by engineering calculations included in the compliance report.

d. The permittee must on the first operating day of the month, after 12 months of perchloroethylene emissions data are available, determine the 12-month rolling total perchloroethylene emissions, ET_{unit}, for the 12-month period ending with the most recent month using the following equation:

$$ET_{unit} = [\sum E_{unit}]$$

where,

ET_{unit} = the total perchloroethylene solvent emissions over the preceding 12 months, (kilograms of solvent emissions per 12- month period);

$\sum$ = Symbol meaning the sum of the monthly perchloroethylene emissions;

E_{unit} = perchloroethylene solvent emissions for each month for the most recent 12 months (kilograms of solvent per month).

e. The permittee must on the first operating day of the month, after 12 months of emissions data are available, determine the 12-month rolling total perchloroethylene emissions, $ET_{facility}$, for the 12-month period ending with the most recent month using following equation:

$$ET_{facility} = [\sum ET_{unit}]$$

where,

$ET_{facility}$ = the total perchloroethylene solvent emissions over the preceding 12 months for all cleaning machines at the facility, (kilograms of solvent emissions per 12-month period);

$\sum$ = Symbol meaning the sum of the monthly perchloroethylene emissions;

ET_{unit} = the total perchloroethylene solvent emissions over the preceding 12 months for each unit at the facility (kilograms of solvent per month).

f. If the facility-wide perchloroethylene emission limit in Condition 3.6 is not met, an exceedance has occurred. All exceedances must be reported as required in Condition 8.11.

7.0 RECORDKEEPING REQUIREMENTS

7.1 General Recordkeeping for Control Requirements

For each batch vapor or in-line solvent cleaning machine complying with the control requirements in Condition 3.2a, the permittee must maintain the following records in written or electronic form for the lifetime of the machine.

a. **Machine and control equipment documentation:** Owner's manuals, or if not available, written maintenance and operating procedures, for the solvent cleaning machine and control equipment.

b. **Machine and control device installation:** The date of installation for the solvent cleaning machine and all of its control devices. If the exact date for installation is not known, a letter certifying that the cleaning machine and its control devices were installed prior to, or on, November 29, 1993, or after November 29, 1993, may be substituted.

c. **Dwell time determinations:** If a dwell is used to comply with the control requirements in Condition 3.2a, records of the tests required in Condition 6.2e to determine an appropriate dwell time for each part or parts basket.

d. **Halogenated HAP solvent content:** Records of the halogenated HAP solvent content for each solvent used in a solvent cleaning machine ~~subject to the provisions of 40 CFR part 63 subpart T~~.

e. **Squeegee system maximum product throughput:** If a squeegee system is used to comply, records of the test required by Condition 6.2j to determine the maximum product throughput for the squeegees.

f. **Air knife system and combination squeegee and air knife system parameter:** If an air knife system or a combination squeegee and air knife system is used to comply, records of the determination of the proper operating parameter and parameter value for the air knife system.

7.2 Specific Recordkeeping for Control Requirements

For each batch vapor or in-line solvent cleaning machine complying with the control requirements in Condition 3.2a, the permittee must maintain the following records either in electronic or written form for a period of five (5) years.

a. **Monitoring results:** The results of control device monitoring required under Condition 6.2.

b. **Actions taken to comply with monitoring requirements:** Information on the actions taken to comply with Condition 6.2. This information must include records of written or verbal orders for replacement parts, a description of the repairs made, and additional monitoring conducted to demonstrate that monitored parameters have returned to accepted levels.

c. **Annual solvent consumption:** Estimates of annual solvent consumption for each solvent cleaning machine.

d. **Carbon adsorber monitoring:** If a carbon adsorber is used to comply, records of the date and results of the weekly measurement of the halogenated HAP solvent concentration in the carbon adsorber exhaust required in Condition 6.2g.v.

7.3 Recordkeeping for Overall Emission Limit

For each batch vapor or in-line solvent cleaning machine complying with the overall emission limit in Condition 3.2b.ii, the permittee must maintain the following records either in electronic or written form for a period of five (5) years.

a. **Solvent addition:** The dates and amounts of solvent that are added to the solvent cleaning machine.

b. **Solvent removal:** The solvent composition of wastes removed from cleaning machines as determined using the procedure described in Condition 6.1c.

c. **Emission calculations** Calculation sheets showing how monthly emissions and the rolling 3-month average emissions from the solvent cleaning machine were determined, and the results of all calculations.

d. **Cleaning capacity:** For each solvent cleaning machine without a solvent/air, the permittee must maintain records on the method used to determine the cleaning capacity of the cleaning machine.

7.4 Recordkeeping for overall control system efficiency

For each continuous web or remote reservoir continuous web cleaning machine complying with the overall control system efficiency in Condition 3.2b.iii, the permittee must maintain the following records in either electronic or written form for a period of five (5) years.

a. **Solvent addition:** The dates and amounts of solvent that are added to the solvent cleaning machine.

b. **Solvent recovery:** The dates and amounts of solvent that are recovered from the desorption of the carbon adsorber system.

c. **Solvent removal:** The solvent composition of wastes removed from each cleaning machine as determined using the procedures in Condition 6.1c.

d. **Emission calculations:** Calculation sheets showing the calculation and results of determining the overall cleaning system control efficiency.

7.5 Recordkeeping for Facility-Wide Perchloroethylene Emission Limit

The permittee must maintain the following records either in electronic or written form for a period of 5 years. For purposes of this condition, ''each solvent cleaning machine'' means each solvent cleaning machine using perchloroethylene.

a. The dates and amounts of solvent that are added to each solvent cleaning machine.

b. The solvent composition of wastes removed from each solvent cleaning machine as determined using the procedure described in Condition 6.6c.

c. Calculation sheets showing how monthly perchoroethylene emissions and the 12-month rolling total emissions from each solvent cleaning machine were determined, and the results of all calculations.

~~7.5~~7.6 VOC and HAP Emissions

The permittee must maintain the following records on a monthly basis:

a. Types of VOC or HAP containing materials used

b. Amount of each material used based on purchase records and inventories at the beginning and end of each calendar month. (gal.)

c. Density of each type of material (lb/gal.)

d. VOC fraction for each type of material (lb VOC/lb material)

e. Individual HAP fraction for each type of material (lb HAP/lb material)

f. Weight of VOC shipped offsite

g. Weight of individual HAP shipped offsite

~~7.6~~7.7 Complaint Log

The permittee must maintain a log of all written complaints and complaints received via telephone that specifically refer to air pollution concerns associated to the permitted facility. The log must include a record of the permittee's actions to investigate the validity of each complaint and a record of actions taken for complaint resolution.

~~7.7~~7.8 Retention of Records

Unless otherwise specified, all records must be maintained on site for a period of five~~two~~ years and made available to the Department upon request.

8.0 REPORTING REQUIREMENTS

8.1 Initial Notification of Affected Facility

For each new halogenated solvent cleaning machine, the permittee must submit an initial notification as soon as practicable before the construction or reconstruction is planned to commence.

8.2 Initial Notification for Facility-Wide Perchloroethylene Emission Limit

The permittee must submit an initial notification report to the Department no later than May 3, 2010. This report must include the following information:

a. The name and address of the permittee.

b. The address (i.e., physical location) of the solvent cleaning machine(s).

c. A brief description of each solvent cleaning machine at the facility including machine type (batch vapor, vapor in-line or cold inline), solvent/air interface area, and existing controls.

d. The date of installation for each solvent cleaning machine.

e. An estimate of annual halogenated HAP solvent consumption for each solvent cleaning machine.

~~8.2~~8.3 Initial Statement of Compliance

a. **Control Requirements Compliance Option:** For each new solvent cleaning machine complying with the control requirements in Condition 3.2a, the permittee must submit an initial statement of compliance. This report must be submitted no later than 150 days after startup.

b. **Overall Emission Limits Compliance Option:** For each new solvent cleaning machine complying with the overall emission limits in Condition 3.2b.ii, the permittee must submit an initial statement of compliance. This report must be submitted no later than 150 days after startup.

c. **Overall Control System Efficiency Compliance Option:** For each solvent cleaning machine complying with the overall control system efficiency in Condition 3.2b.iii, the permittee must submit an initial statement of compliance. This report must be submitted no later than 150 days after startup.

8.4 Initial Statement of Compliance for the Facility-Wide Perchloroethylene Emission Limit

The permittee must submit to the Department an initial statement of compliance on or before May 3, 2010. The statement must include the following information.

a. The name and address of the owner or operator of the affected facility.

b. The address (i.e., physical location) of each solvent cleaning machine that is part of an affected facility.

c. The results of the first 12-month rolling total perchloroethylene emissions calculation.

~~8.3~~8.5 Compliance Report

For each new batch cold solvent cleaning machine, the permittee must submit a compliance report no later than 150 days after startup.

~~8.4~~8.6 Annual Report for Batch Vapor or In-line Solvent Cleaning Machine

For each batch vapor or in-line solvent cleaning machine complying with the provisions of Conditions 3.2b.i, the permittee must submit to the Department an annual report by February 15 for the previous calendar year.

~~8.5~~8.7 Solvent Emission

For each batch vapor or in-line solvent cleaning machine

Report for Overall Emission Limit complying with the overall emission limit in Condition 3.2b.ii, the permittee must submit a solvent emission report every year.

8.8 Solvent Emission Report for the Facility-Wide Perchloroethylene Emission Limit

The permittee must submit a solvent emission report every year. This solvent emission report must contain the following requirements.

a. The average monthly perchloroethylene solvent consumption for the affected facility in kilograms per month.

b. The 12-month rolling total perchloroethylene solvent emission estimates calculated each month using the method as described in Condition 6.6.

c. This report can be combined with the annual report required in Conditions 8.6 and 8.7 into a single report for the facility.

~~8.6~~8.9 Control Efficiency Report

For each continuous web or remote reservoir continuous web solvent cleaning machine complying with the overall control system efficiency in Condition 3.2b.iii, the permittee must submit a control efficiency report every year.

~~8.7~~8.10 Annual Report

The permittee must submit to the Department by February 15 of each year this permit is in effect, two (2) copies of the following information for the previous calendar year:

a. Emissions data:

i. VOC emissions (tons per year)

ii. Individual HAP emissions (tons per year)

iii. Total HAP emissions (tons per year)

b. Records of all planned and unplanned excess emissions events.

c. Summary of complaints relating to air quality received by permittee during the year.

d. List permanent changes made in plant process, production levels, and pollution control equipment which affected air contaminant emissions.

e. List major maintenance performed on pollution control equipment.

~~8.8~~8.11 Exceedance Report

For each batch vapor or in-line solvent cleaning machine, the permittee must submit an exceedance report semiannually except when, determined on a case-by-case basis that more frequent reporting is necessary to accurately assess the compliance status of the source or, an exceedance occurs. Once an exceedance has occurred the permittee must follow a quarterly reporting format until a request to reduce reporting frequency under Condition 8.12 is approved. Exceedance reports must be delivered or postmarked by the 30th day following the end of each calendar half or quarter, as appropriate.

~~8.9~~8.12 Exceedance Reporting Frequency Reduction

The permittee may reduce the frequency of the exceedance reporting required in Condition 8.11 to semiannual if the following conditions are met:

a. The permittee has demonstrated a full year of compliance without an exceedance.

b. The permittee continues to comply with all relevant recordkeeping and monitoring requirements specified in this permit.

c. The Administrator of the EPA does not object to a reduced frequency of reporting for the affected source~~ as provided in 40 CFR 63.10(e)(3)(iii)~~.

~~8.10~~8.13 Equivalency Determination Request

For each new solvent cleaning machine requesting an equivalency determination, as described in 40 CFR 63.469, the permittee must submit an equivalency request report to the Administrator of EPA. This report must be submitted and approved by the Administrator prior to startup.

~~8.11~~8.14 Notice of Change of Ownership or Company Name

The permittee must notify the Department in writing using a Departmental "Permit Application Form" within 60 days after the following:

a. Legal change of the name of the company as registered with the Corporations Division of the State of Oregon; or

b. Sale or exchange of the activity or facility.

~~8.12~~8.15 Where to Send Reports and Notices

The reports, with the permit number prominently displayed, must be sent to the Permit Coordinator for the region where the source is located as identified in Condition 9.2.

9.0 ADMINISTRATIVE REQUIREMENTS

9.1 Reassignment to the General Permit

A complete application for reassignment to this permit is due within 60 days after the permit is reissued. The Department will notify the permittee when the permit is reissued. The application must be sent to the appropriate regional office.

a. If the Department is delinquent in renewing the permit, the existing permit will remain in effect and the permittee must comply with the conditions of the permit until such time that the permit is reissued and the source is reassigned to the permit.

b. The permittee may submit an application for either a Simple or Standard ACDP at any time, but the permittee must continue to comply with the General ACDP until the Department takes final action on the Simple or Standard ACDP application.

c. If a complete application for reassignment to the general permit or Simple or Standard ACDP is filed with the Department in a timely manner, the permit will not be deemed to expire until final action has been taken on the application.

9.2 Permit Coordinator Addresses

All reports, notices, and applications should be directed to the Permit Coordinator for the area where the source is located. The Permit Coordinator addresses are as follows:

Counties	Permit Coordinator Address and Telephone
Clackamas, Clatsop, Columbia, Multnomah, Tillamook, and Washington	Department of Environmental Quality Northwest Region 2020 SW 4th Avenue, Suite 400 Portland, OR 97201-4987 Telephone: (503) 229-5582
Benton, Coos, Curry, Douglas, Jackson, Josephine, Lincoln, Linn, Marion, Polk, and Yamhill	Department of Environmental Quality Western Region 750 Front Street NE, Suite 120 Salem, OR 97301-1039 Telephone: (503) 378-~~8240 ext. 225~~5305
Baker, Crook, Deschutes, Gilliam, Grant, Harney, Hood River, Jefferson, Klamath, Lake, Malheur, Morrow, Sherman, Umatilla, Union, Wallowa, Wasco, Wheeler	Department of Environmental Quality Eastern Region 300 SE Reed Market Road ~~2146 NE 4th Street, Suite 104~~ Bend, OR 97702-2237~~1-3647~~ Telephone: (541) 388-6146 ext. 223

9.3 Department Contacts

Information about air quality permits and the Department's regulations may be obtained from the DEQ web page at www.deq.state.or.us. All inquiries about this permit should be directed to the regional office for the area where the source is located. The Department's regional offices are as follows:

Counties	Office Address and Telephone
Clackamas, Clatsop, Columbia, Multnomah, Tillamook, and Washington	Department of Environmental Quality Portland Office 2020 SW 4th Avenue, Suite 400 Portland, OR 97201-4987 Telephone: (503) 229-5554
Benton, Lincoln, Linn, Marion, Polk, and Yamhill	Department of Environmental Quality Salem Office 750 Front Street NE, Suite 120 Salem, OR 97301-1039 Telephone: (503) 378-8240
Coos, Curry, and Western Douglas	Department of Environmental Quality Coos Bay Office 340 N Front Street Coos Bay, OR 97420-2325 Telephone: (541) 269-2721
Eastern Douglas, Jackson, and Josephine	Department of Environmental Quality Medford Office 201 W Main Street, Suite 2-D Medford, OR 97501-2744 Telephone: (541) 776-6010
Crook, Deschutes, Harney, Hood River, Jefferson, Klamath, Lake, Sherman, Wasco, and Wheeler	Department of Environmental Quality Bend Office ~~2146 NE 4th Street, Suite 104~~300 SE Reed Market Road Bend, OR 97702-2237~~1-3647~~ Telephone: (541) 388-6146
Baker, Gilliam, Grant, Malheur, Morrow, Umatilla, Union, and Wallowa	Department of Environmental Quality Pendleton Office 700 SE Emigrant Avenue, Suite 330 Pendleton, OR 97801-2597 Telephone: (541) 276-4063
~~Klamath and Lake~~	~~Department of Environmental Quality~~ ~~Klamath Falls Office~~ ~~700 Main Street, Suite 202~~ ~~Klamath Falls, OR 97601-6010~~ ~~Telephone: (541) 883-5603~~

10.0 FEES

10.1 Annual Compliance Fee

The Annual Compliance Determination Fee specified in OAR 340-216-0090, Table 2, Part 2(c) for a Class Two General ACDP is due on December 1 of each year this permit is in effect. An

		invoice indicating the amount, as determined by Department regulations, will be mailed prior to the above date.
10.2	**Change of Ownership or Company Name Fee**	The non-technical permit modification fee specified in OAR 340-216-0090, Table 2, Part 3(a) is due with an application for changing the ownership or the name of the company of a source assigned to this permit.
10.3	**Where to Submit Fees**	Fees must be submitted to: Department of Environmental Quality Business Office 811 SW Sixth Avenue Portland, Oregon 97204-1390

11.0 GENERAL CONDITIONS AND DISCLAIMERS

11.1	**Other Regulations**	In addition to the specific requirements listed in this permit, the permittee must comply with all other legal requirements enforceable by the Department.
11.2	**Conflicting Conditions**	In any instance in which there is an apparent conflict relative to conditions in this permit, the most stringent conditions apply.
11.3	**Masking of Emissions**	The permittee must not cause or permit the installation of any device or use any means designed to mask the emissions of an air contaminant that causes or is likely to cause detriment to health, safety, or welfare of any person or otherwise violate any other regulation or requirement.
11.4	**Department Access**	The permittee must allow the Department's representatives access to the plant site and pertinent records at all reasonable times for the purposes of performing inspections, surveys, collecting samples, obtaining data, reviewing and copying air contaminant emissions discharge records and conducting all necessary functions related to this permit in accordance with ORS 468-095.
11.5	**Permit Availability**	The permittee must have a copy of the permit available at the facility at all times.
11.6	**Open Burning**	The permittee may not conduct any open burning except as allowed by OAR 340 Division 264.
11.7	**Asbestos**	The permittee must comply with the asbestos abatement requirements in OAR 340, Division 248 for all activities involving asbestos-containing materials, including, but not limit to, demolition, renovation, repair, construction, and maintenance.
11.8	**Property Rights**	The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor

does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations.

11.9	**Termination, Revocation, or Modification**	The Commission may modify or revoke this permit pursuant to OAR 340-216-0060(3) and (4).

12.0 ABBREVIATIONS, ACRONYMS, AND DEFINITIONS

Affected Source	Each solvent cleaning machine that uses any solvent containing halogenated HAP solvents, at a total concentration greater than 5%, to remove soils from the surfaces of materials. Buckets, pails and beakers with capacities of 2 gallons or less, are not considered solvent cleaning machines.
Air Blanket	The layer of air inside the freeboard located above the air/solvent interface.
Air Knife	A device that directs forced air at high pressure, high volume, or a combination of high pressure and high volume, through a small opening directly at the surface of a continuous web part. The purpose of this system is to remove the solvent film from the surfaces of the continuous web part.
Batch Cleaning Machine	A solvent cleaning machine in which individual parts or a set of parts move through the entire cleaning cycle before new parts are introduced into the machine.
Cold Cleaning Machine	Machines that use unheated or heated, non-boiling liquid solvents to remove soils from the surface of parts.
Combination Squeegee and Air-knife	A system consisting of a combination of a squeegee system and an air-knife system within a single enclosure.
Continuous Web Cleaning Machine	A solvent cleaning machine in which parts such as film, coils, wire and metal strips are cleaned at speeds typically in excess of 11 feet per minute. Parts are generally uncoiled, cleaned such that the same part is simultaneously entering and exiting the solvent application area of the solvent cleaning machine, and then recoiled or cut. All continuous web cleaning machines are considered to be a subset of in-line solvent cleaning machines.
Deposition	Emissions from an air pollutant source which are deposited upon the property of another.
Dwell	The technique of holding parts within the freeboard area but above the vapor zone in the machine. Dwell occurs after cleaning to allow solvent to drain from the part or parts baskets back into

	the machine.
Existing Source	Any affected source that is not a new source.
Freeboard Area	The area within the cleaning machine that extends from the solvent/air interface to the top of the cleaning machine.
Freeboard Height	The distance from the solvent/air interface, as measured during the idling mode to the top of the cleaning machine.
Freeboard Ratio	The ratio of the cleaning machine freeboard height to the smaller interior dimension (length, width, or diameter) of the solvent cleaning machine.
Freeboard Refrigeration Device	A set of secondary coils mounted in the freeboard area that carries a substance to provide a chilled air blanket above the solvent vapor. A primary condenser capable of meeting the requirements of 40 CFR 63.463(e)(2)(i) (see Table 4) is defined as both a freeboard refrigeration device and a primary condenser.
Fugitive Emissions	Discharges of air pollutants through doors, windows, or other uncontrolled exit points.
Halogenated HAP Solvent	Any solvent that contains methylene chloride, perchloroethylene, chloroform, 1,1,1-trichloroethane, trichloroethylene, or carbon tetrachloride.
Immersion Cold Cleaning Machine	A cold cleaning machine in which the parts are immersed in the solvent when being cleaned. A remote reservoir cold cleaning machine that is also an immersion cold cleaning machine is considered an immersion cold cleaning ~~machine for the purposes of 40 CFR part 63 subpart T~~.
In-Line Cleaning Machine	A solvent cleaning machine that uses an automated parts handling system, typically a conveyor, to automatically provide a continuous supply of parts to be cleaned.
New Source	Any affected source that the construction or reconstruction of which is commenced after November 29, 1993.
Opacity	The degree to which an emission (smoke or dust) reduces transmission of light and obscures the view in the background.
Remote Cold Cleaning Machine	Any device in which liquid solvent is pumped to a sink-like work area that drains solvent back into an enclosed container while parts are being cleaned, allowing no solvent to pool in the work area.
Remote Reservoir Continuous Web Cleaning Machine	A continuous web cleaning machine in which there is no exposed solvent sump. In these units, the solvent is pumped from an enclosed chamber and is typically applied to the continuous web part through a nozzle or series of nozzles. That solvent then

	drains from the part and is collected and recycled through the machine, allowing no solvent to pool in the work or cleaning area.
Solvent/Air Interface	Vapor machine: the location of contact between the concentrated solvent vapor layer and the air; or mid-line height of the primary condenser coils. Cold machine: the location of contact between the liquid solvent and the air.
Solvent/Air Interface Area	Vapor machine: the surface area of the solvent vapor zone that is exposed to the air Cold machine: the surface area of the liquid solvent that is exposed to the air In-line machine: the total surface area of all the sumps.
Solvent Vapor Zone	The area from the solvent surface to the level that solvent vapor is condensed.
Squeegee System	A system that uses a series of pliable surfaces to remove the solvent film from the surfaces of the continuous web part. These pliable surfaces, called squeegees, are typically made of rubber or plastic media, and need to be periodically replaced to ensure continued proper function.
Superheated Part Technology	A system that is part of the continuous web process that heats the continuous web part either directly or indirectly to a temperature above the boiling point of the cleaning solvent. This could include a process step, such as a tooling die that heats the part as it is processed, as long as the part remains superheated through the cleaning machine.
Superheated Vapor System	A system using solvent heated past the boiling point to evaporate liquid solvent on cleaned parts prior to exiting the machine.
Vapor Cleaning Machine	A batch or in-line solvent cleaning machine that boils liquid solvent generating solvent vapor that is used as part of the cleaning or drying cycle.

ACDP	Air Contaminant Discharge Permit
ASTM	American Society for Testing and Materials
AQMA	Air Quality Maintenance Area
bbl	barrel (42 gal)
calendar year	The 12-month period beginning January 1st and ending December 31st
CFR	Code of Federal Regulations
CO	carbon monoxide
date	mm/dd/yy
DEQ	Oregon Department of Environmental Quality
dscf	dry standard cubic foot

EPA	US Environmental Protection Agency
FCAA	Federal Clean Air Act
gal	gallon(s)
gr/dscf	grains per dry standard cubic foot
HAP	Hazardous Air Pollutant as defined by OAR 340-244-0040
ID	identification number
I&M	inspection and maintenance
lb	pound(s)
MMBtu	million British thermal units
NA	not applicable
NESHAP	National Emissions Standards for Hazardous Air Pollutants
NO_X	nitrogen oxides
NSPS	New Source Performance Standard
NSR	New Source Review
O_2	oxygen
OAR	Oregon Administrative Rules
ORS	Oregon Revised Statutes
O&M	operation and maintenance
Pb	lead
PCD	pollution control device
PM	particulate matter
PM_{10}	particulate matter less than 10 microns in size
ppm	part per million
ppmv	part per million by volume
PSD	Prevention of Significant Deterioration
PSEL	Plant Site Emission Limit
PTE	Potential to Emit
RACT	Reasonably Available Control Technology
scf	standard cubic foot
SER	Significant Emission Rate
SERP	Source Emission Reduction Plan
SIC	Standard Industrial Code
SIP	State Implementation Plan
SO_2	sulfur dioxide
Special Control Area	as defined in OAR 340-204-0070
VE	visible emissions
VOC	volatile organic compound
year	A period consisting of any 12-consecutive calendar months

13.0 ATTACHMENT 1: CONTROL COMBINATION OPTIONS

for Batch Vapor, In-Line, and Remote Reservoir Continuous Web Cleaning Machines

Cleaning Machine Type	Option	Working Mode Cover	1.0 Freeboard Ratio	Super Heated Vapor	Freeboard Refrigeration Device	Reduced Room Draft	Carbon Adsorber	Dwell	Super Heated Parts
Batch Vapor Cleaning Machine ≤ 1.21 m^2 [≤ 13 ft^2]	1	X	X	X					
	2			X	X				
	3	X			X				
	4		X	X		X			
	5				X	X			
	6		X		X				
	7				X			X	
	8		X			X		X	
	9				X		X		
	10		X	X			X		
Batch Vapor Cleaning Machine > 1.21 m^2 [> 13 ft^2]	1		X	X	X				
	2				X	X		X	
	3	X		X	X				
	4		X	X		X			
	5			X	X	X			
	6		X		X	X			
	7			X	X		X		
In-Line - Existing	1		X	X					
	2		X		X				
	3				X			X	
	4						X	X	
In-Line - New	1			X	X				
	2				X		X		
	3			X			X		
Continuous Web -Existing	1		X						X
	2		X	X					
	3		X		X				
	4						X		
Continuous Web - New	1			X	X				
	2				X				X
	3				X		X		
	4			X			X		
	5						X		X
Remote Reservoir Web - Continuous	1		X						X
	2		X	X					
	3		X		X				
	4						X		
Remote Reservoir Web – New	1			X					
	2								X
	3						X		

GENERAL
AIR CONTAMINANT DISCHARGE PERMIT

Department of Environmental Quality
Air Quality Division
811 SW Sixth Avenue
Portland, OR 97204-1390
Telephone: (503) 229-5359

This permit is issued in accordance with the provisions of ORS 468A.040 and incorporated into OAR 340-216-0060 by the Environmental Quality Commission on December 12, 2008~~August 30, 2001~~ for the following source category:

Bulk Gasoline Plants; gasoline storage and distribution facilities ~~located in the Portland Air Quality Maintenance Area (AQMA), Medford-Ashland AQMA, or Salem/Kaiser Area Transportation Study (SKATS) area~~ which receive gasoline from bulk terminals by pipeline, ship, barge, railroad car or trailer transport, store it in tanks, and subsequently dispense it via account trucks to local farms, businesses, and gasoline dispensing facilities. SIC 5171

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1.0 PERMIT ASSIGNMENT

1.1 Qualifications

All of the following conditions must be met in order to qualify for assignment to this General Air Contaminant Discharge Permit (ACDP):

a. The permittee is performing bulk gasoline plant activities listed on the cover page of this permit, including supporting activities.

b. A Simple or Standard ACDP is not required for the source.

c. The source is not having ongoing, recurring or serious compliance problems.

d. The facility has a gasoline throughput of less than 20,000 gallons per day.

1.2 Assignment

The Department will assign qualifying permittees to this permit that have and maintain a good record of compliance with the Department's Air Quality regulations and that the Department determines would be appropriately regulated by a General ACDP. The Department may rescind assignment if the permittee no longer meets the requirements of ~~OAR 340-216-0060 and the conditions of~~ this permit.

1.3 Permitted Activities

The permittee is allowed to discharge air contaminants from processes and activities related to the air contaminant source(s) listed on the first page of this permit until this permit expires, is modified, revoked or rescinded as long as conditions of this permit are complied with. If there are other emissions activities occurring at the site besides those listed on the cover page of this permit, the permittee may be required to obtain a Simple or Standard ACDP~~Permit~~ or additional General ACDP(s), if applicable.

1.4 Relation to local land use laws

This permit is not valid in Lane County, or at any location where the operation of the permittee's processes, activities, and insignificant activities would be in violation of any local land use or zoning laws. For operation in Lane County, contact Lane Regional Air Protection Agency for any necessary permits at (541) 736-1056. It is the permittee's sole responsibility to obtain local land use approvals as, or where, applicable before operating this facility at any location.

2.0 GENERAL EMISSION STANDARDS AND LIMITS

2.1 Visible Emissions

The permittee must comply with the following visible emission limits, as applicable:

a. Emissions from any air contaminant source must not equal or exceed 20% opacity for a period aggregating more than 3 minutes in any one hour.

b. In Clackamas, Columbia, Multnomah, or Washington Counties, emissions from any air contaminant source other than fuel burning equipment must not equal or exceed 20% opacity for a period aggregating more than 30 seconds in any one hour.

2.2 Fugitive Emissions

The permittee must take reasonable precautions to~~for~~ prevent~~ing~~ fugitive dust emissions~~ from becoming a nuisance~~, such as but not limited to:

a. Treating vehicular traffic areas of the plant site under the control of the permittee.

b. Operating all air contaminant-generating processes so that fugitive type dust associated with the operation will be adequately controlled at all times.

c. Storing collected materials from air pollution control equipment in a covered container or other method equally effective in preventing the material from becoming airborne during storage and transfer.

2.3 Particulate Matter Fallout

The permittee must not cause or permit the emission of any particulate matter larger than 250 microns in size at sufficient duration or quantity, as to create an observable deposition upon the real property of another person. The Department will verify that the deposition exists and will notify the permittee that the deposition must be controlled.

~~2.3~~2.4 Nuisance and Odors

The permittee must not allow the emission of odorous or other fugitive emissions so as to create nuisance conditions off the permittee's property. Nuisance conditions will be verified by Department personnel.

3.0 OPERATION AND MAINTENANCE REQUIREMENTS

3.1 NESHAP Compliance Dates

If the plant is not located within the Portland Air Quality Maintenance Area (AQMA), Medford AQMA, or Salem/Kaiser Area Transportation Study area, the permittee is not required to comply with Conditions 3.2, 3.3, and 3.11 until January 10, 2011.

~~3.1~~3.2 General Work Practice Requirements

The permittee must not allow ~~G~~gasoline ~~must~~ to be handled in a manner that would result in vapor releases to the atmosphere for extended periods of time~~to prevent spillage, discharging to sewers, storage in open containers, or handled in any other manner that would result in evaporation~~. Measures to be taken include, but are not limited to the following:

a. Minimize gasoline spills.

b. Clean up spills as expeditiously as practicable.

c. Cover all open gasoline containers and all gasoline storage tank fill-pipes with a gasketed seal when not in use.

d. Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators.

~~3.2~~3.3 Submerged Fill~~Work Practices for Storage Tanks~~

The permittee must only ~~not transfer~~load or allow to be loaded~~the transfer of~~ gasoline or other materials into ~~or from the bulk plant~~ storage tanks and cargo tanks with a capacity of 250 gallons or more ~~unless~~utilizing submerged filling as follows:

a. Submerged fill pipes installed on or before November 9, 2006, must be no more than 6 inches from the bottom of the tank~~Each stationary storage tank uses submerged fill when transferring gasoline~~; ~~and~~or

b. Submerged fill pipes installed after November 9, 2006, must be no more than 6 inches from the bottom of the tank.

~~b.~~c. ~~The displaced vapors from filling each tank are prevented from being released to the atmosphere through use of a vapor tight vapor balance system or Department approved equivalent. All equipment associated with the vapor balance system must be maintained to be vapor tight and in good working order.~~

3.4 Vapor Balance System	If operating a Bulk Gasoline Plant within the Portland AQMA, Medford AQMA, or Salem/Kaiser Area Transportation Study area, the permittee must prevent displaced vapors from filling each storage tank and cargo tank with gasoline or other material from being released to the atmosphere through use of a vapor tight vapor balance system or Department approved equivalent. All equipment associated with the vapor balance system must be maintained to be vapor tight and in good working order.
~~3.3~~3.5 ~~Portland-Vancouver AQMA~~ Work Practices for Delivery Vessels	A permittee operating a Bulk Gasoline Plant within the Portland-Vancouver AQMA, having an average daily throughput of 4000 or more gallons of gasoline (based on a 30-day rolling average), must not transfer gasoline or allow others to transfer gasoline at the bulk plant to a delivery vessel unless: a. ~~e~~Each compartment of the delivery vessel is filled by submerged fill; and b. ~~t~~The displaced vapors from filling each tank are prevented from being released to the atmosphere through use of a vapor tight vapor balance system or Department approved equivalent.
~~3.4~~3.6 Work Practices for Medford/Ashland AQMA	The permittee must use submerged fill techniques when delivering gasoline to storage or dispensing tanks within the Medford/Ashland Air Quality Maintenance Area unless such tanks are exempt from Department rules.
~~3.5~~3.7 Pressure Relief Valves	The permittee may release vapor to the atmosphere from each gasoline storage tank, provided the release is through a pressure relief valve set to release at the highest possible pressure in accordance with state or local fire codes, or the National Fire Prevention Association guidelines and no less than 3.4 kPa (0.50 psi) or some other setting approved in writing by the Department.
~~3.6~~3.8 Fugitive Emissions Control Plan	While operating in the Medford-Ashland AQMA, the permittee must prepare and implement site-specific plans for the control of fugitive emissions in accordance with OAR 340-240-0180. While operating in the Lakeview Urban Growth Area (UGA), the permittee must prepare and implement site-specific plans for the control of fugitive emissions in accordance with OAR 340-240-0410.
3.9 Startup, Shutdown, and Malfunction Provisions	At all times, including periods of startup, shutdown, and malfunction, the permittee must operate and maintain any affected source, including associated air pollution control devices and monitoring equipment, in a manner consistent with good air pollution control practices for minimizing emissions. During a

period of startup, shutdown, or malfunction, this general duty to minimize emissions requires that the permittee reduce emissions from the source to the greatest extent which is consistent with safety and good air pollution control practices. The general duty to minimize emissions during a period of startup, shutdown, or malfunction does not require the permittee to achieve emission levels that would be required by the applicable standard at other times if this is not consistent with safety and good air pollution control practices, nor does it require the permittee to make any further efforts to reduce emissions if levels required by the applicable standard have been achieved. Malfunctions must be corrected as soon as practicable after their occurrence. To the extent that an unexpected event arises during a startup, shutdown, or malfunction, the permittee must comply by minimizing emissions during such a startup, shutdown, and malfunction event consistent with safety and good air pollution control practices.

~~3.7~~3.10 O&M Plan While operating in the Medford-Ashland AQMA, the permittee must prepare and implement an operation and maintenance (O&M) plan in accordance with OAR 340-240-0190. While operating in the Lakeview UGA, the permittee must prepare and implement an O&M plan in accordance with OAR 340-240-0420.

3.11 Leak Inspection The permittee must perform a monthly leak inspection of all equipment in gasoline service according to the following requirements:

a. For this inspection, detection methods incorporating sight, sound, and smell are acceptable.

b. A log book must be used and must be signed by the permittee at the completion of each inspection. A section of the log book must contain a list, summary description, or diagram(s) showing the location of all equipment in gasoline service at the facility.

c. Each detection of a liquid or vapor leak must be recorded in the log book. When a leak is detected, an initial attempt at repair must be made as soon as practicable, but no later than 5 calendar days after the leak is detected. Repair or replacement of leaking equipment must be completed within 15 calendar days after detection of each leak, except as provided in Condition 3.11d.

d. Delay of repair of leaking equipment will be allowed if the repair is not feasible within 15 days. The permittee must provide in the semiannual report specified in § 63.11095(b), the reason(s) why the repair was not feasible and the date each repair was completed.

4.0 PLANT SITE EMISSION LIMITS

4.1 Plant Site Emission Limits (PSEL) Plant site emissions must not exceed 39 tons of VOC per year.

4.2 Annual Period The annual plant site emissions limits apply to any 12-consecutive calendar month period.

5.0 COMPLIANCE DEMONSTRATION

5.1 Monitoring Requirements The permittee must inspect and monitor the operation and maintenance of the plant and associated air contaminant control facilities. At least the following parameters must be monitored and recorded at the indicated intervals:

a. The permittee must visually inspect each vapor control system on a sunny day, once during June of each year, between 8:00 a.m. and 10:00 a.m. for pressure leaks indicated by "heat waves." The permittee must observe tank vapor relief valves and the vapor return line adapter within four (4) feet of the equipment. The permittee must record the following data.

   i. Date of visual inspection.

   ii. Start and finish time of visual inspection.

   iii. Leak status of each tank's relief valve and if valve operated during its inspection.

   iv. Leak status of the vapor return line adapter.

   v. Any other vapor leaks observed.

   vi. Corrective action taken.

   vii. High and low temperature as reported for the day in the newspaper.

b. The permittee must monitor the monthly throughput (gallons) of gasoline and other organic liquid materials by product type.

5.2 PSEL Compliance Compliance with the PSEL is determined for each 12-consecutive

Monitoring

calendar month period based on the gasoline or other material throughput for the reporting period.

a. Bulk plants storing product exclusively in underground storage tanks will be presumed to be in compliance with the yearly VOC PSEL provided total product throughput does not exceed 35,000,000 gallons during any 12-consecutive calendar month period.

b. Bulk plants storing product in above-ground storage tanks or a mix of above and underground tanks will be presumed to be in compliance with the yearly VOC PSEL provided total product throughput does not exceed 8,500,000 gallons during any 12-consecutive calendar month period.

c. If the permittee exceeds the operational throughput thresholds stated above, the permittee must demonstrate compliance with the yearly PSEL on a monthly basis as follows:

$$E_{12\text{-month}} = \sum (T + L_L)/2000$$

Where:

$E_{12\text{-month}}$ = Total VOC emissions (in tons) for the 12-month period

T = monthly storage tank emissions of each product. T is to be calculated using EPA TANKS 4.0 emission calculation software. Contact DEQ to obtain a copy of this software if one is needed.

L_L = loading loss emissions from truck loading operations

$$L_L = 1.25 * \frac{PM}{T_P + 460}$$

Where:

P = product's true vapor pressure

M = molecular weight of product's vapors

T_P = temperature of product in degrees F

Values for P and M may be obtained from tables 7.1-2 and 7.1-3 of EPA's AP-42

6.0 RECORDKEEPING REQUIREMENTS

6.1 Operation and Maintenance

The permittee must maintain the following records related to the operation and maintenance of the plant and associated air contaminant control devices:

a. Monthly throughput of gasoline and other materials by type of material; and

b. All maintenance on the vapor control systems must be recorded as performed.

6.2 Equipment Leaks

If subject to the equipment leak provisions of Condition 3.11, the permittee must prepare and maintain a record describing the types, identification numbers, and locations of all equipment in gasoline service. For facilities electing to implement an instrument program under Condition 3.11, the record must contain a full description of the program. The permittee must record in the log book for each leak that is detected the following information:

a. The equipment type and identification number.

b. The nature of the leak (i.e., vapor or liquid) and the method of detection (i.e., sight, sound, or smell).

c. The date the leak was detected and the date of each attempt to repair the leak.

d. Repair methods applied in each attempt to repair the leak.

e. ''Repair delayed'' and the reason for the delay if the leak is not repaired within 15 calendar days after discovery of the leak.

f. The expected date of successful repair of the leak if the leak is not repaired within 15 days.

g. The date of successful repair of the leak.

~~6.2~~6.3 Excess Emissions

The permittee must maintain records of excess emissions as defined in OAR 340-214-0300 through 340-214-0340 (recorded on occurrence). Typically, excess emissions are caused by process upsets, startups, shutdowns, or scheduled maintenance. In many cases, excess emissions are evident when visible emissions are greater than 20% opacity for 3 minutes or more in any 60 minute period.

~~6.3~~6.4 Retention of Records

~~Unless otherwise specified, all records must be maintained on site for a period of two (2) years and made available to the Department upon request.~~The permittee must maintain files of all information (including all reports and notifications) required by this permit in a form suitable and readily available for expeditious inspection and review. The files must be retained for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent 2 years of data shall be retained on site. The remaining 3 years of data may be retained off site. Such files may be maintained on microfilm, on a computer, on computer floppy disks, on magnetic tape disks, or on microfiche.

~~6.4~~6.5 Complaint Log The permittee must maintain a log of all written complaints and complaints received via telephone that specifically refer to air pollution concerns associated to the permitted facility. The log must include a record of the permittee's actions to investigate the validity of each complaint and a record of actions taken for complaint resolution.

7.0 REPORTING REQUIREMENTS

7.1 Notification of Compliance Status The permittee must submit a Notification of Compliance Status to the Department and EPA's Region X Office, by the compliance date specified in Condition 3.1. The Notification of Compliance Status must be signed by a responsible official who must certify its accuracy and must indicate whether the source has complied with the requirements of 40 CFR part 63 subpart BBBBBB.

~~7.1~~7.2 Spills If more than 5 gallons of gasoline are spilled, the permittee must report the spillage to the Department by telephone or in person within 1 hour. Such notice must include the nature and quantity of the increased emissions that have occurred.

~~7.2~~7.3 Excess Emissions The permittee must notify the Department by telephone or in person of any excess emissions which are of a nature that could endanger public health.

a. Such notice must be provided as soon as possible, but never more than one hour after becoming aware of the problem. Notice must be made to the regional office identified in Condition 8.3.

b. If the excess emissions occur during non-business hours, the permittee must notify the Department by calling the Oregon Emergency Response System (OERS). The current number is 1-800-452-0311.

c. The permittee must also submit follow-up reports when required by the Department.

7.4 Semiannual The permittee must submit a semiannual excess emissions report,

Report only for a 6-month period during which an equipment leak occurred and no repair attempt was made within 5 days or for which repair was not completed within 15 days after detection. If no excess emission events have occurred during the previous 6 month period, no report is required. The report must contain the following information:

a. The date on which the leak was detected;

b. The date of each attempt to repair the leak;

c. The reasons for the delay of repair; and

d. The date of successful repair.

~~7.3~~7.5 **Annual Report** The permittee must submit to the Department by February 15th of each year this permit is in effect, two (2) copies of the following information for the preceding calendar year:

a. The volume of gasoline and other materials, in gallons per year, run through the bulk plant for the preceding calendar year. Report amounts for each type of material.

b. Annual VOC emissions if required to perform a compliance demonstration calculation in accordance with Condition 5.2c.

c. Records of all planned and unplanned excess emissions events.

d. Summary of complaints relating to air quality received by permittee during the year.

e. List permanent changes made in plant process, production levels, and pollution control equipment which affected air contaminant emissions.

f. List all major maintenance performed on pollution control equipment.

~~7.4~~7.6 **Initial Startup Notice** The permittee must notify the Department in writing of the date a new facility is started up. The notification must be submitted no later than seven (7) days after startup.

~~7.5~~7.7 **Notice of Change of Ownership or Company Name** The permittee must notify the Department in writing using a Departmental "Permit Application Form" within 60 days after the following:

a. Legal change of the name of the company as registered with the Corporations Division of the State of Oregon; or

b. Sale or exchange of the activity or facility.

~~7.6~~7.8 Construction or Modification Notices

The permittee must notify the Department in writing using a Departmental "Notice of Construction Form," or "Permit Application Form," and obtain approval ~~in accordance with OAR 340-210-0205 through 340-210-0250~~ before:

a. Constructing or installing any new source of air contaminant emissions, including air pollution control equipment;

b. Modifying or altering an existing source that may significantly affect the emission of air contaminants;

c. Making any physical change which increases emissions; or

d. Changing the method of operation, the process, or the fuel use, or increasing the normal hours of operation that result in increased emissions.

~~7.7~~7.9 Where to Send Reports and Notices

The reports, with the permit number prominently displayed, must be sent to the Permit Coordinator for the region where the source is located as identified in Condition 8.2.

8.0 ADMINISTRATIVE REQUIREMENTS

8.1 Reassignment to the General ACDP

A complete application for reassignment to this permit is due within 60 days after the permit is reissued. The Department will notify the permittee when the permit is reissued. The application must be sent to the appropriate regional office.

a. If the Department is delinquent in renewing the permit, the existing permit will remain in effect and the permittee must comply with the conditions of the permit until such time that the permit is reissued and the source is reassigned to the permit.

b. The permittee may submit an application for either a Simple or Standard ACDP at any time, but the permittee must continue to comply with the General ACDP until the Department takes final action on the Simple or Standard ACDP application.

c. If a complete application for reassignment to the General ACDP or Simple or Standard ACDP is filed with the Department in a timely manner, the permit will not be deemed to expire until final action has been taken on the application.

8.2 Permit Coordinator Addresses

All reports, notices, and applications should be directed to the Permit Coordinator for the area where the source is located. The Permit Coordinator addresses are as follows:

Counties	Permit Coordinator Address and Telephone
Clackamas, Clatsop, Columbia, Multnomah, Tillamook, and Washington	Department of Environmental Quality Northwest Region 2020 SW 4th Avenue, Suite 400 Portland, OR 97201-4987 Telephone: (503) 229-5582
Benton, Coos, Curry, Douglas, Jackson, Josephine, Lincoln, Linn, Marion, Polk, and Yamhill	Department of Environmental Quality Western Region 750 Front Street NE, Suite 120 Salem, OR 97301-1039 Telephone: (503) 378-~~8240 ext. 225~~5305
Baker, Crook, Deschutes, Gilliam, Grant, Harney, Hood River, Jefferson, Klamath, Lake, Malheur, Morrow, Sherman, Umatilla, Union, Wallowa, Wasco, Wheeler	Department of Environmental Quality Eastern Region ~~2146 NE 4th Street, Suite 104~~300 SE Reed Market Road Bend, OR 9770~~1~~2-~~3647~~2237 Telephone: (541) 388-6146 ext. 223

8.3 Department Contacts

Information about air quality permits and the Department's regulations may be obtained from the DEQ web page at www.deq.state.or.us. All inquiries about this permit should be directed to the regional office for the area where the source is located. The Department's regional offices are as follows:

Counties	Office Address and Telephone
Clackamas, Clatsop, Columbia, Multnomah, Tillamook, and Washington	Department of Environmental Quality Portland Office 2020 SW 4th Avenue, Suite 400 Portland, OR 97201-4987 Telephone: (503) 229-5554
Benton, Lincoln, Linn, Marion, Polk, and Yamhill	Department of Environmental Quality Salem Office 750 Front Street NE, Suite 120 Salem, OR 97301-1039 Telephone: (503) 378-8240

Counties	Office Address and Telephone
Coos, Curry, and Western Douglas	Department of Environmental Quality Coos Bay Office 340 N Front Street Coos Bay, OR 97420-2325 Telephone: (541) 269-2721
Eastern Douglas, Jackson, and Josephine	Department of Environmental Quality Medford Office 201 W Main Street, Suite 2-D Medford, OR 97501-2744 Telephone: (541) 776-6010
Crook, Deschutes, Harney, Hood River, Jefferson, Klamath, Lake, Sherman, Wasco, and Wheeler	Department of Environmental Quality Bend Office ~~2146 NE 4th Street, Suite 104~~300 SE Reed Market Road Bend, OR 97702~~1~~-~~3647~~2237 Telephone: (541) 388-6146
Baker, Gilliam, Grant, Malheur, Morrow, Umatilla, Union, and Wallowa	Department of Environmental Quality Pendleton Office 700 SE Emigrant Avenue, Suite 330 Pendleton, OR 97801-2597 Telephone: (541) 276-4063
~~Klamath and Lake~~	~~Department of Environmental Quality~~ ~~Klamath Falls Office~~ ~~700 Main Street, Suite 202~~ ~~Klamath Falls, OR 97601-6010~~ ~~Telephone: (541) 883-5603~~

9.0 FEES

9.1 Annual Compliance Fee

The Annual Compliance Determination Fee specified in OAR 340-216-0090, Table 2, Part 2(c) for a Class One General ACDP is due on December 1 of each year this permit is in effect. An invoice indicating the amount, as determined by Department regulations, will be mailed prior to the above date.

9.2 Change of Ownership or Company Name Fee

The non-technical permit modification fee specified in OAR 340-216-0090, Table 2, Part 3(a) is due with an application for changing the ownership or the name of the company of a source assigned to this permit.

9.3 Where to Submit Fees

Fees must be submitted to:

Department of Environmental Quality
Business Office

811 SW Sixth Avenue
Portland, Oregon 97204-1390

10.0 GENERAL CONDITIONS AND DISCLAIMERS

10.1 Other Regulations	In addition to the specific requirements listed in this permit, the permittee must comply with all other legal requirements enforceable by the Department.
10.2 Conflicting Conditions	In any instance in which there is an apparent conflict relative to conditions in this permit, the most stringent conditions apply.
~~10.2~~10.3 Masking of Emissions	The permittee must not cause or permit the installation of any device or use any means designed to mask the emissions of an air contaminant that causes or is likely to cause detriment to health, safety, or welfare of any person or otherwise violate any other regulation or requirement.
~~10.2~~10.4 Department Access	The permittee must allow the Department's representatives access to the plant site and pertinent records at all reasonable times for the purposes of performing inspections, surveys, collecting samples, obtaining data, reviewing and copying air contaminant emissions discharge records and conducting all necessary functions related to this permit in accordance with ORS 468-095.
~~10.3~~10.5 Permit Availability	The permittee must have a copy of the permit available at the facility at all times.
~~10.4~~10.6 Open Burning	The permittee may not conduct any open burning except as allowed by OAR 340 Division 264.
~~10.5~~10.7 Asbestos	The permittee must comply with the asbestos abatement requirements in OAR 340, Division 248 for all activities involving asbestos-containing materials, including, but not limit to, demolition, renovation, repair, construction, and maintenance.
~~10.6~~10.8 Property Rights	The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations.
~~10.7~~10.9 Termination, Revocation, or Modification	The Commission may modify or revoke this permit pursuant to OAR 340-216-0060(3) and (4).

11.0 ABBREVIATIONS, ACRONYMS, AND DEFINITIONS

ACDP	Air Contaminant Discharge Permit
ASTM	American Society for Testing and Materials
AQMA	Air Quality Maintenance Area
calendar year	The 12-month period beginning January 1st and ending December 31st
CFR	Code of Federal Regulations
CO	carbon monoxide
DEQ	Oregon Department of Environmental Quality
dscf	dry standard cubic foot
EPA	US Environmental Protection Agency
FCAA	Federal Clean Air Act
gal	gallon(s)
gr/dscf	grains per dry standard cubic foot
HAP	Hazardous Air Pollutant as defined by OAR 340-244-0040
ID	identification number
I&M	inspection and maintenance
lb	pound(s)
MMBtu	million British thermal units
NA	not applicable
NESHAP	National Emissions Standards for Hazardous Air Pollutants
NO_X	nitrogen oxides
NSPS	New Source Performance Standard
NSR	New Source Review
O_2	oxygen
OAR	Oregon Administrative Rules
ORS	Oregon Revised Statutes
O&M	operation and maintenance
Pb	lead
PCD	pollution control device
PM	particulate matter
PM_{10}	particulate matter less than 10 microns in size
ppm	part per million
PSD	Prevention of Significant Deterioration
PSEL	Plant Site Emission Limit
PTE	Potential to Emit
RACT	Reasonably Available Control Technology
scf	standard cubic foot
SER	Significant Emission Rate
SIC	Standard Industrial Code
SIP	State Implementation Plan
SO_2	sulfur dioxide
Special Control Area	as defined in OAR 340-204-0070
VE	visible emissions
VOC	volatile organic compound
year	A period consisting of any 12-consecutive calendar months

GENERAL

AIR CONTAMINANT DISCHARGE PERMIT

Department of Environmental Quality
Air Quality Division
811 SW Sixth Avenue
Portland, OR 97204-1390
Telephone: (503) 229-5359

This permit is issued in accordance with the provisions of ORS 468A.040 and incorporated into OAR 340-216-0060 by the Environmental Quality Commission on December 12, 2008 for the following source category:

Clay ceramic manufacturing facilities subject to Part 63, Title 40 of Code of Federal Regulations, Subpart RRRRRR, as adopted under OAR 340-244-0220. NAICS 327111, 327112, 327122.

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1.0 PERMIT ASSIGNMENT

1.1. Qualifications

All of the following conditions must be met in order to qualify for assignment to this General Air Contaminant Discharge Permit (ACDP):

a. The permittee is performing clay ceramic manufacturing activities listed on the cover page of this permit.

b. The source has an atomized glaze spray booth or kiln that fires glazed ceramic ware.

c. The source processes more than 50 tons per year of wet clay.

d. A Simple or Standard ACDP is not required for the source.

e. The source is not having ongoing, recurring or serious compliance problems.

1.2. Assignment

The Department will assign qualifying permittees to this permit that have and maintain a good record of compliance with the Department's Air Quality regulations and that the Department determines would be appropriately regulated by a General ACDP. The Department may rescind assignment of the permittee no longer meets the requirements of the permit.

1.3. Permitted Activities

The permittee is allowed to discharge air contaminants from processes and activities related to the air contaminant source(s) listed on the first page of this permit until this permit expires, is modified, revoked or rescinded as long as conditions of this permit are complied with. If there are other emissions activities occurring at the site besides those listed on the cover page of this permit, the permittee may be required to obtain a Simple or Standard ACDP or additional General ACDP(s), if applicable.

1.4. Relation to local land use laws

This permit is not valid in Lane County, or at any location where the operation of the permittee's processes, activities, and insignificant activities would be in violation of any local land use or zoning laws. For operation in Lane County, contact Lane Regional Air Protection Agency for any necessary permits at (541) 736-1056. It is the permittee's sole responsibility to obtain local land use approvals as, or where, applicable before operating this facility at any location.

2.0 GENERAL EMISSION STANDARDS AND LIMITS

2.1. Visible Emissions

The permittee must comply with the following visible emission limits, as applicable:

a. In Clackamas, Columbia, Multnomah, or Washington Counties, emissions from any air contaminant source must not equal or exceed 20% opacity for a period aggregating more than 30 seconds in any one hour.

b. In all other areas of the state, emissions from any air contaminant source must not equal or exceed 20% opacity for a period aggregating more than 3 minutes in any one hour.

2.2. Fugitive Emissions

The permittee must take reasonable precautions to prevent fugitive dust emissions, such as but not limited to:

a. Treating vehicular traffic areas of the plant site under the control of the permittee.

b. Operating all air contaminant-generating processes so that fugitive type dust associated with the operation will be adequately controlled at all times.

c. Storing collected materials from air pollution control equipment in a covered container or other method equally effective in preventing the material from becoming airborne during storage and transfer.

2.3. Particulate Matter Fallout

The permittee must not cause or permit the emission of any particulate matter larger than 250 microns in size at sufficient duration or quantity, as to create an observable deposition upon the real property of another person. The Department will verify that the deposition exists and will notify the permittee that the deposition must be controlled.

2.4. Nuisance and Odors

The permittee must not cause or allow air contaminants from any source to cause a nuisance. Nuisance conditions will be verified by Department personnel.

2.5. Fuels and Fuel Sulfur Content

The permittee must not use any fuel other than natural gas, propane, butane, ASTM grade fuel oils, or on-specification used oil.

a. Fuel oils must not contain more than:

   i. 0.3% sulfur by weight for ASTM Grade 1 distillate oil;

ii. 0.5% sulfur by weight for ASTM Grade 2 distillate oil or on-specification used oil;

b. The permittee is allowed to use on-specification used oil that contains no more than 0.5% sulfur by weight. The permittee must obtain analyses from the marketer or, if generated on site, have the used oil analyzed, so that it can be demonstrated that the used oil does not exceed the used oil specifications contained in 40 CFR Part 279.11, Table 1.

3.0 SPECIFIC PERFORMANCE AND EMISSION STANDARDS

3.1. Glaze Kilns

For each kiln that fires glazed ceramic ware, the permittee must:

a. Maintain the peak temperature below 2800° F (1540° C).

b. Use natural gas or equivalent clean-burning fuel such as propane, or use an electric-powered kiln.

3.2. Large Atomized Glaze Spray Booth

For each atomized glaze spray booth located at a facility that uses more than 250 tons per year of wet glaze, the permittee must comply with the equipment standard requirements in Condition 3.2.a or the management practice in Condition 3.2.b.

a. Equipment standard: Control the emissions from the atomized glaze spray booth with an air pollution control device (APCD). APCD means any equipment that reduces the quantity of a pollutant that is emitted to the air. Examples of APCD currently used on glaze spray booths include, but are not limited to, wet scrubbers, fabric filters, water curtains, and water-wash systems.

i. Operate and maintain the APCD in accordance with the equipment manufacturer's specifications; and

ii. Monitor the APCD according to the applicable requirements in Conditions 6.2 and 6.3.

b. Management practice: Use wet glazes containing less than 0.1 (weight) percent clay ceramic metal HAP.

3.3. Small Atomized Glaze Spray Booth

For each atomized glaze spray booth located at a facility that uses 250 tons per year or less of wet glaze, the permittee must comply with the equipment standard requirements in Condition 3.3.a or the management practice in Condition 3.3.b.

a. Equipment standard: Comply with the equipment standard requirements described in Condition 3.2.a or the management practice described Condition 3.2.b.

b. Management practice: Employ procedures employed to minimize material losses and prevent unnecessary waste generation, for example, minimizing glaze overspray emissions using HVLP spray equipment (defined in 40 CFR 63.11444) or similar spray equipment; minimizing HAP emissions during cleanup of spray glazing equipment; operating and maintaining spray glazing equipment according to manufacturer's instructions; and minimizing spills through careful handling of HAP-containing glaze materials.

3.4. Wet Glaze Usage Surface applications (*e.g.*, wet glazes) containing less than 0.1 (weight) percent clay ceramics metal HAP do not have to be considered in determination of the 250 ton per year threshold for wet glaze usage.

4.0 OPERATION AND MAINTENANCE REQUIREMENTS

4.1. Startup, Shutdown, and Malfunction Provisions At all times, including periods of startup, shutdown, and malfunction, the permittee must operate and maintain any affected source, including associated air pollution control devices and monitoring equipment, in a manner consistent with good air pollution control practices for minimizing emissions. During a period of startup, shutdown, or malfunction, this general duty to minimize emissions requires that the permittee reduce emissions from the source to the greatest extent which is consistent with safety and good air pollution control practices. The general duty to minimize emissions during a period of startup, shutdown, or malfunction does not require the permittee to achieve emission levels that would be required by the applicable standard at other times if this is not consistent with safety and good air pollution control practices, nor does it require the permittee to make any further efforts to reduce emissions if levels required by the applicable standard have been achieved. Malfunctions must be corrected as soon as practicable after their occurrence. To the extent that an unexpected event arises during a startup, shutdown, or malfunction, the permittee must comply by minimizing emissions during such a startup, shutdown, and malfunction event consistent with safety and good air pollution control practices.

5.0 PLANT SITE EMISSION LIMITS

5.1. Plant Site Emission Limits (PSEL)

Plant site emissions must not exceed the following:

Pollutant	Limit	Units
PM	24	tons per year
PM_{10}	14	tons per year
SO_2	39	tons per year
NO_X	39	tons per year
CO	99	tons per year
VOC	39	tons per year

5.2. PM_{10} PSEL for Medford-Ashland AQMA

For sources operating in the Medford-Ashland AQMA, plant site emissions of PM_{10} must not exceed the following:

Pollutant	Limit	Units
PM_{10}	4.5	tons per year
	49	pounds per day

5.3. Annual Period

The annual plant site emissions limits apply to any 12-consecutive calendar month period.

6.0 COMPLIANCE DEMONSTRATION

6.1. Fuel Sulfur Monitoring

If fuel oil is burned, the permittee must either obtain a certificate from the vendor stating that the fuel sulfur content complies with the limits in Condition 2.5 or have a sample of the fuel analyzed in accordance with the appropriate ASTM analytical procedures. If the permittee has samples analyzed for sulfur, a sample must be collected from the holding tank just after each shipment of oil is added to the tank.

6.2. Initial Control Device Inspection

For any wet spray glaze operation controlled by an APCD, the permittee must conduct an initial inspection of each particulate matter (PM) control device as follows prior to being assigned to this permit or within 60 days of startup, whichever is later:

a. For each wet control system, the permittee must verify the presence of water flow to the control equipment; visually inspect ductwork and control equipment for leaks; and inspect the interior of the control equipment for structural integrity and the condition of the control system. An initial inspection of the internal components of a wet control system is not required if an inspection has been performed within the past 12 months.

b. For each baghouse, the permittee must visually inspect the ductwork and baghouse unit for leaks, and inspect the inside of the baghouse for structural integrity and fabric filter condition. An initial inspection of the internal components of the baghouse is not required if an inspection has been performed within the past 12 months.

6.3. Periodic Inspections and Maintenance

The permittee must perform periodic inspections and maintenance of each PM control device following the initial control device inspection according to the requirements in Condition 6.3.a or 6.3.b.

a. Wet control systems:

i. Daily inspection to verify the presence of water flow to the wet controls system;

ii. Weekly visual inspections of the system ductwork and control equipment for leaks; and

iii. Annual inspections of the system interior for structural integrity and to determine the condition of the equipment.

b. Baghouses:

i. Weekly visual inspections of the system ductwork for leaks;

ii. Annual inspections of the system interior for structural integrity and to determine the condition of the fabric filter;

c. As an alternative to Condition 6.3.a or 6.3.b, the permittee may conduct a daily 30-minute visible emissions test using EPA Method 22, or an approved alternative technique under 40 CFR 63.8(f).

d. If the results of the visual inspection, visible emission test, or alternative monitoring technique indicate an exceedance, the permittee must take corrective action according to the manufacturer's specifications or instructions.

6.4. Kiln Monitoring

For each kiln firing glazed ceramic ware, the permittee must conduct a daily check of the peak firing temperature. If the peak temperature exceeds 2800 ^{o}F (1540 ^{o}C), the permittee must take corrective action according to the permittee's standard operating procedures.

6.5. PSEL Compliance Monitoring

Compliance with the PSEL is determined for each 12-consecutive calendar month period based on the following calculation for each pollutant:

$$E = \Sigma(EF \times P)/2000$$

where,

E = pollutant emissions (tons/yr);
EF = pollutant emission factor (see Condition 6.6);
P = process production (tons of fired product)

6.6. Emission Factors

The permittee must use the default emission factors provided below for calculating pollutant emissions, unless alternative emission factors are approved by the Department. The permittee may request or the Department may require using alternative emission factors provided they are based on actual test data or other documentation (e.g., AP-42 compilation of emission factors) that has been reviewed and approved by the Department.

Emissions device or activity	Pollutant	Emission Factor (EF)	Emission factor units
Crushing and Screening	PM/PM10	0.12	lb/ton of fired product
Dryer	PM/PM_{10}	2.3	lb/ton of fired product
Cooler	PM/PM_{10}	0.11	lb/ton of fired product
Granulation Spray Dryer	PM/PM_{10}	0.19	lb/ton of fired product
Kiln	PM/PM_{10}	0.56	lb/ton of fired product
	SO_2	44 x S*	lb/ton of fired product
	NO_x	0.54	lb/ton of fired product
	CO	3.3	lb/ton of fired product

	VOC	0.43	lb/ton of fired product
Glaze Spray Booth	PM/PM_{10}	19	lb/ton of fired product
Forming – Tape Casters	VOC	58	lb/ton of formed product

*Sulfur content of raw materials in percent

7.0 RECORDKEEPING REQUIREMENTS

7.1. Notifications The permittee must keep a copy of each Initial Notification and each Notification of Compliance Status that was submitted to comply with Clay Manufacturing NESHAP, including all documentation supporting any Initial Notification or Notification of Compliance Status.

7.2. Operation and Maintenance The permittee must maintain records related to the following activities.

a. Amount of product fired – tons per month;

b. Amount of product formed – tons per month;

c. Amount of wet glaze used – tons per month;

d. Amount of natural gas used – cubic feet per month;

e. Certificate of analysis for used oil fuel demonstrating that fuel is on-specification – per shipment or batch;

f. Fuel oil sulfur content – per shipment;

g. Daily kiln peak temperature checks;

h. The results of visual inspections required in Conditions 6.2 through 6.3, as applicable;

i. The results of visible emission tests or approved alternative monitoring techniques required in Condition 6.3.c;

j. The records required in Conditions 7.2.g through 7.2.i must include:

i. Date, place, time;

ii. Person conducting the activity;

iii. Technique or method used;

iv. Operating conditions during the activity;

v. Results, including any remedial actions taken.

7.3. Complaint Log The permittee must maintain a log of all written complaints and complaints received via telephone that specifically refer to air pollution concerns associated to the permitted facility. The log must include a record of the permittee's actions to investigate the validity of each complaint and a record of actions taken for complaint resolution.

7.4. Retention of Records All records must be maintained for a period of 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. The permittee must hold the records on site for a period of two (2) years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, and make them available to the Department upon request.

8.0 REPORTING REQUIREMENTS

8.1. Annual Report For each year this permit is in effect, the permittee must submit to the Department by February 15 two (2) copies of the following information for the previous calendar year:

a. Operating parameters:

i. Highest peak operating temperature in each kiln;

ii. Amount of product fired, in tons;

iii. Amount of product formed, in tons;

iv. Amount of wet glaze used, in tons;

v. Amount of natural gas used, in cubic feet per month;

vi. Summary of the results of the visual inspections required in Condition 6.3. At a minimum, report any inspection which resulted in remedial actions.

b. Summary of complaints relating to air quality received by permittee during the year.

c. List permanent changes made in plant process, production levels, and pollution control equipment which affected air contaminant emissions.

d. List major maintenance performed on pollution control equipment.

8.2. Notice of Change of Ownership or Company Name

The permittee must notify the Department in writing using a Departmental "Permit Application Form" within 60 days after the following:

a. Legal change of the name of the company as registered with the Corporations Division of the State of Oregon; or

b. Sale or exchange of the activity or facility.

8.3. Construction or Modification Notices

The permittee must notify the Department in writing using a Departmental "Notice of Construction Form," or "Permit Application Form," and obtain approval before:

a. Constructing, installing, or establishing a new stationary source that will cause an increase in any regulated pollutant emissions;

b. Making any physical change or change in operation of an existing stationary source that will cause an increase, on an hourly basis at full production, in any regulated pollutant emissions; or

c. Constructing or modifying any air pollution control equipment.

8.4. Where to Send Reports and Notices

The reports, with the permit number prominently displayed, must be sent to the Permit Coordinator for the region where the source is located as identified in Condition 9.2.

9.0 ADMINISTRATIVE REQUIREMENTS

9.1. Permit Renewal Application

A complete application for reassignment to this permit is due within 60 days after the permit is reissued. The Department will notify the permittee when the permit is reissued. The application must be sent to the appropriate regional office.

a. The permittee may submit an application for either a Simple or Standard ACDP at any time, but the permittee must continue to comply with the General ACDP until DEQ takes final action on the application.

b. If a complete application for reassignment to the General permit, or application made for a Simple or Standard permit in a timely manner, the permit will not be deemed to expire until final action has been taken on the application.

9.2. Permit Coordinator Addresses

All reports, notices, and applications should be directed to the Permit Coordinator for the area where the source is located. The Permit Coordinator addresses are as follows:

Counties	Permit Coordinator Address and Telephone
Clackamas, Clatsop, Columbia, Multnomah, Tillamook, and Washington	Department of Environmental Quality Northwest Region 2020 SW 4th Avenue, Suite 400 Portland, OR 97201-4987 Telephone: (503) 229-5582
Benton, Coos, Curry, Douglas, Jackson, Josephine, Lincoln, Linn, Marion, Polk, and Yamhill	Department of Environmental Quality Western Region 750 Front Street NE, Suite 120 Salem, OR 97301-1039 Telephone: (503) 378-5305
Baker, Crook, Deschutes, Gilliam, Grant, Harney, Hood River, Jefferson, Klamath, Lake, Malheur, Morrow, Sherman, Umatilla, Union, Wallowa, Wasco, Wheeler	Department of Environmental Quality Eastern Region 300 SE Reed Market Road Bend, OR 97702-2237 Telephone: (541) 388-6146 ext. 223

9.3. Department Contacts

Information about air quality permits and the Department's regulations may be obtained from the DEQ web page at http://www.oregon.gov/DEQ/. All inquiries about this permit should be directed to the regional office for the area where the source is located. The Department's regional offices are as follows:

Counties	Office Address and Telephone
Clackamas, Clatsop, Columbia, Multnomah, Tillamook, and Washington	Department of Environmental Quality Portland Office 2020 SW 4th Avenue, Suite 400 Portland, OR 97201-4987 Telephone: (503) 229-5554
Benton, Lincoln, Linn, Marion, Polk, and Yamhill	Department of Environmental Quality Salem Office 750 Front Street NE, Suite 120 Salem, OR 97301-1039 Telephone: (503) 378-8240

Counties	Office Address and Telephone
Coos and Curry	Department of Environmental Quality Coos Bay Office 381 N Second Street Coos Bay, OR 97420-2270 Telephone: (541) 269-2721
Douglas, Jackson, and Josephine	Department of Environmental Quality Medford Office 221 W Stewart Avenue, Suite 201 Medford, OR 97501-3647 Telephone: (541) 776-6010
Crook, Deschutes, Harney, Hood River, Jefferson, Klamath, Lake, Sherman, Wasco, and Wheeler	Department of Environmental Quality Bend Office 300 SE Reed Market Road Bend, OR 97702-2237 Telephone: (541) 388-6146
Baker, Gilliam, Grant, Malheur, Morrow, Umatilla, Union, and Wallowa	Department of Environmental Quality Pendleton Office 700 SE Emigrant Avenue, Suite 330 Pendleton, OR 97801-2597 Telephone: (541) 276-4063

10.0 FEES

10.1. Annual Compliance Fee The Annual Fee specified in OAR 340-216-0020, Table 2, Part 2 for a Fee Class One General ACDP is due on December 1 of each year this permit is in effect. An invoice indicating the amount, as determined by Department regulations, will be mailed prior to the above date.

10.2. Change of Ownership or Company Name Fee The non-technical permit modification fee specified in OAR 340-216-0020, Table 2, Part 3(a) is due with an application for changing the ownership or the name of the company.

10.3. Special Activity Fees The special activity fees specified in OAR 340-216-0020, Table 2, Part 3 (b through i) are due with an application to modify the permit.

10.4. Where to Submit Fees Fees must be submitted to:

Department of Environmental Quality
Business Office
811 SW Sixth Avenue
Portland, Oregon 97204-1390

11.0 GENERAL CONDITIONS AND DISCLAIMERS

11.1.	**Other Regulations**	In addition to the specific requirements listed in this permit, the permittee must comply with all other legal requirements enforceable by the Department.
11.2.	**Conflicting Conditions**	In any instance in which there is an apparent conflict relative to conditions in this permit, the most stringent conditions apply.
11.3.	**Masking of Emissions**	The permittee must not cause or permit the installation of any device or use any means designed to mask the emissions of an air contaminant that causes or is likely to cause detriment to health, safety, or welfare of any person or otherwise violate any other regulation or requirement.
11.4.	**Department Access**	The permittee must allow the Department's representatives access to the plant site and pertinent records at all reasonable times for the purposes of performing inspections, surveys, collecting samples, obtaining data, reviewing and copying air contaminant emissions discharge records and conducting all necessary functions related to this permit in accordance with ORS 468-095.
11.5.	**Permit Availability**	The permittee must have a copy of the permit available at the facility at all times.
11.6.	**Open Burning**	The permittee may not conduct any open burning except as allowed by OAR 340 Division 264.
11.7.	**Asbestos**	The permittee must comply with the asbestos abatement requirements in OAR 340, Division 248 for all activities involving asbestos-containing materials, including, but not limit to, demolition, renovation, repair, construction, and maintenance.
11.8.	**Property Rights**	The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations.
11.9.	**Termination, Revocation, or Modification**	The Department may modify or revoke this permit pursuant to OAR 340-216-0082 and 340-216-0084.

12.0 ABBREVIATIONS, ACRONYMS, AND DEFINITIONS

ACDP	Air Contaminant Discharge Permit
ASTM	American Society for Testing and Materials
AQMA	Air Quality Maintenance Area
calendar	The 12-month period

year	beginning January 1st and ending December 31st
CFR	Code of Federal Regulations
CO	carbon monoxide
DEQ	Oregon Department of Environmental Quality
dscf	dry standard cubic foot
EPA	US Environmental Protection Agency
FCAA	Federal Clean Air Act
gal	gallon(s)
gr/dscf	grains per dry standard cubic foot
HAP	Hazardous Air Pollutant as defined by OAR 340-244-0040
I&M	inspection and maintenance
lb	pound(s)
Metal HAP	chromium, manganese, lead, nickel
MMBtu	million British thermal units
NA	not applicable
NESHAP	National Emissions Standards for Hazardous Air Pollutants
NO_X	nitrogen oxides
NSPS	New Source Performance Standard
NSR	New Source Review
O_2	Oxygen
OAR	Oregon Administrative Rules
ORS	Oregon Revised Statutes
O&M	operation and maintenance
Pb	Lead
PCD	pollution control device
PM	particulate matter
PM_{10}	particulate matter less than 10 microns in size
ppm	part per million
PSD	Prevention of Significant Deterioration
PSEL	Plant Site Emission Limit
PTE	Potential to Emit
RACT	Reasonably Available Control Technology
scf	standard cubic foot
SER	Significant Emission Rate
SIC	Standard Industrial Code
SIP	State Implementation Plan
SO_2	sulfur dioxide
Special Control Area	as defined in OAR 340-204-0070
VE	visible emissions
VOC	volatile organic compound
year	A period consisting of any 12-consecutive calendar months

GENERAL

AIR CONTAMINANT DISCHARGE PERMIT

Department of Environmental Quality
Air Quality Division
811 SW Sixth Avenue
Portland, OR 97204-1390
Telephone: (503) 229-5359

This permit is issued in accordance with the provisions of ORS 468A.040 and incorporated into OAR 340-216-0060 by the Environmental Quality Commission on December 12, 2008 for the following source category:

Hospital ethylene oxide sterilizers subject to Part 63, Title 40 of Code of Federal Regulations, Subpart WWWWW, as adopted under OAR 340-244-0220. NAICS 622110, 622310.

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1.0 PERMIT ASSIGNMENT

1.1. Qualifications All of the following conditions must be met in order to qualify for assignment to this General Air Contaminant Discharge Permit (ACDP):

a. The permittee is a hospital performing sterilization of medical equipment using ethylene oxide as listed on the cover page of this permit.

b. A Simple or Standard ACDP is not required for the source.

c. The source is not having ongoing, recurring or serious compliance problems.

1.2. Assignment The Department will assign qualifying permittees to this permit that have and maintain a good record of compliance with the Department's Air Quality regulations and that the Department determines would be appropriately regulated by a General ACDP. The Department may rescind assignment of the permittee no longer meets the requirements of the permit.

1.3. Permitted Activities The permittee is allowed to discharge air contaminants from processes and activities related to the air contaminant source(s) listed on the first page of this permit until this permit expires, is modified, revoked or rescinded as long as conditions of this permit are complied with. If there are other emissions activities occurring at the site besides those listed on the cover page of this permit, the permittee may be required to obtain a Simple or Standard ACDP or additional General ACDP(s), if applicable.

1.4. Relation to local land use laws This permit is not valid in Lane County, or at any location where the operation of the permittee's processes, activities, and insignificant activities would be in violation of any local land use or zoning laws. For operation in Lane County, contact Lane Regional Air Protection Agency for any necessary permits at (541) 736-1056. It is the permittee's sole responsibility to obtain local land use approvals as, or where, applicable before operating this facility at any location.

2.0 GENERAL EMISSION STANDARDS AND LIMITS

2.1. Visible Emissions The permittee must comply with the following visible emission limits, as applicable:

a. In Clackamas, Columbia, Multnomah, or Washington Counties, emissions from any air contaminant source must not equal or exceed 20% opacity for a period aggregating more than 30 seconds in any one hour.

b. In all other areas of the state, emissions from any air contaminant source must not equal or exceed 20% opacity for a period aggregating more than 3 minutes in any one hour.

2.2. Fugitive Emissions The permittee must take reasonable precautions to prevent fugitive dust emissions, such as but not limited to:

a. Treating vehicular traffic areas of the plant site under the control of the permittee.

b. Operating all air contaminant-generating processes so that fugitive type dust associated with the operation will be adequately controlled at all times.

c. Storing collected materials from air pollution control equipment in a covered container or other method equally effective in preventing the material from becoming airborne during storage and transfer.

2.3. Particulate Matter Fallout The permittee must not cause or permit the emission of any particulate matter larger than 250 microns in size at sufficient duration or quantity, as to create an observable deposition upon the real property of another person. The Department will verify that the deposition exists and will notify the permittee that the deposition must be controlled.

2.4. Nuisance and Odors The permittee must not cause or allow air contaminants from any source to cause a nuisance. Nuisance conditions will be verified by Department personnel.

3.0 SPECIFIC PERFORMANCE AND EMISSION STANDARDS

3.1. Ethylene Oxide Sterilizers The permittee must sterilize full load of items having a common aeration time, except under medically necessary circumstances. Medically necessary means circumstances that a central services staff, a hospital administrator, or a physician concludes, based on generally accepted medical practices, necessitate sterilizing without a full load in order to protect human health.

4.0 COMPLIANCE DEMONSTRATION

4.1. Initial Compliance Demonstration

The permittee must demonstrate initial compliance upon startup of the sterilization unit or June 27, 2009, whichever is later, as follows:

a. Demonstrate compliance with the management practice standard in Condition 3.1 by submitting an Initial Notification of Compliance Status (see Condition 6.1) certifying that the permittee is sterilizing full loads of items having a common aeration time, except under medically necessary circumstances.

b. If operating a sterilization unit(s) with an air pollution control device, the permittee may demonstrate compliance with Condition 3.1 by submitting an Initial Notification of Compliance Status (see Condition 6.1) certifying that ethylene oxide emissions from each sterilization unit is being vented to an add-on air pollution control device. The permittee must also certify that the air pollution control device is operating in accordance with the manufacturer's recommended procedures.

4.2. Continuous Compliance Demonstration

For each sterilization unit not equipped with an air pollution control device, the permittee must demonstrate continuous compliance with the management practice standard in Condition 3.1 by recording the date and time of each sterilization cycle, whether each sterilization cycle contains a full load of items, and if not, a statement from a hospital central services staff, a hospital administrator, or a physician that it was medically necessary.

5.0 RECORDKEEPING REQUIREMENTS

5.1. Operation and Maintenance

The permittee must keep the following records:

a. A copy of the Initial Notification of Compliance Status that was submitted to comply with Conditions 4.1 and 6.1.

b. For each sterilization unit not equipped with an air pollution control device:

i. Daily record of the date and time of each sterilization cycle.

ii. For each sterilization cycle, document that the cycle contained a full load of items.

iii. For each sterilization cycle that does not include a full load of items; record the following:

(a) Date and time;

(b) A statement from a hospital central services staff, a hospital administrator, or a physician why it was medically necessary to conduct a sterilization cycle without a full load of items.

5.2. Complaint Log The permittee must maintain a log of all written complaints and complaints received via telephone that specifically refer to air pollution concerns associated to the permitted facility. The log must include a record of the permittee's actions to investigate the validity of each complaint and a record of actions taken for complaint resolution.

5.3. Retention of Records Unless otherwise specified, all records must be maintained for a period of 5 years. The permittee must hold the records on site for a period of two (2) years and make them available to the Department upon request.

6.0 REPORTING REQUIREMENTS

6.1. Initial Notification of Compliance Status The permittee must submit an Initial Notification of Compliance Status that includes the following information and the applicable certification in Condition 4.1, according to the schedule in Condition 4.1. A form for this purpose is available from DEQ. The notification must be sent to the appropriate DEQ office, as listed in Condition 7.2. In addition, you must submit a copy of the Initial Notification of Compliance Status to EPA's Office of Air Quality Planning and Standards. Send your notification via e-mail to *CCG-ONG@EPA.GOV* or via U.S. mail or other mail delivery service to U.S. EPA, Sector Policies and Programs Division, Coatings and Chemicals Group (E143–01), Attn: Hospital Sterilizers Project Leader, Research Triangle Park, NC 27711.

a. The name and address of the owner or operator.

b. The address (i.e., physical location of the affected source.

c. An identification of the standard and other applicable requirements that serve as the basis of the notification and the source's compliance date.

d. A brief description of the sterilization facility, including the number of ethylene oxide sterilizers, the size (volume) of each, the number of aeration units, if any, the amount of annual ethylene oxide usage at the facility, the control technique used for each sterilizer, and typical number of sterilization cycles per year.

e. A statement that the affected source is an area source.

6.2. Notice of Change of Ownership or Company Name

The permittee must notify the Department in writing using a Departmental “Permit Application Form” within 60 days after the following:

a. Legal change of the name of the company as registered with the Corporations Division of the State of Oregon; or

b. Sale or exchange of the activity or facility.

6.3. Construction or Modification Notices

The permittee must notify the Department in writing using a Departmental “Notice of Construction Form,” or “Permit Application Form,” and obtain approval before:

a. Constructing, installing, or establishing a new stationary source that will cause an increase in any regulated pollutant emissions;

b. Making any physical change or change in operation of an existing stationary source that will cause an increase, on an hourly basis at full production, in any regulated pollutant emissions; or

c. Constructing or modifying any air pollution control equipment.

6.4. Where to Send Reports and Notices

The reports, with the permit number prominently displayed, must be sent to the Permit Coordinator for the region where the source is located as identified in Condition 7.2.

7.0 ADMINISTRATIVE REQUIREMENTS

7.1. Permit Renewal Application

A complete application for reassignment to this permit is due within 60 days after the permit is reissued. The Department will notify the permittee when the permit is reissued. The application must be sent to the appropriate regional office.

a. The permittee may submit an application for either a Simple or Standard ACDP at any time, but the permittee must continue to comply with the General ACDP until DEQ takes final action on the application.

b. If a complete application for reassignment to the General permit, or application made for a Simple or Standard permit in a timely manner, the permit will not be deemed to expire until final action has been taken on the application.

7.2. Permit Coordinator Addresses All reports, notices, and applications should be directed to the Permit Coordinator for the area where the source is located. The Permit Coordinator addresses are as follows:

Counties	Permit Coordinator Address and Telephone
Clackamas, Clatsop, Columbia, Multnomah, Tillamook, and Washington	Department of Environmental Quality Northwest Region 2020 SW 4th Avenue, Suite 400 Portland, OR 97201-4987 Telephone: (503) 229-5582
Benton, Coos, Curry, Douglas, Jackson, Josephine, Lincoln, Linn, Marion, Polk, and Yamhill	Department of Environmental Quality Western Region 750 Front Street NE, Suite 120 Salem, OR 97301-1039 Telephone: (503) 378-5305
Baker, Crook, Deschutes, Gilliam, Grant, Harney, Hood River, Jefferson, Klamath, Lake, Malheur, Morrow, Sherman, Umatilla, Union, Wallowa, Wasco, Wheeler	Department of Environmental Quality Eastern Region 300 SE Reed Market Road Bend, OR 97702-2237 Telephone: (541) 388-6146 ext. 223

7.3. Department Contacts Information about air quality permits and the Department's regulations may be obtained from the DEQ web page at http://www.oregon.gov/DEQ/. All inquiries about this permit should be directed to the regional office for the area where the source is located. The Department's regional offices are as follows:

Counties	Office Address and Telephone
Clackamas, Clatsop, Columbia, Multnomah, Tillamook, and Washington	Department of Environmental Quality Portland Office 2020 SW 4th Avenue, Suite 400 Portland, OR 97201-4987 Telephone: (503) 229-5554
Benton, Lincoln, Linn, Marion, Polk, and Yamhill	Department of Environmental Quality Salem Office 750 Front Street NE, Suite 120 Salem, OR 97301-1039 Telephone: (503) 378-8240

Counties	Office Address and Telephone
Coos and Curry	Department of Environmental Quality Coos Bay Office 381 N Second Street Coos Bay, OR 97420-2270 Telephone: (541) 269-2721
Douglas, Jackson, and Josephine	Department of Environmental Quality Medford Office 221 W Stewart Avenue, Suite 201 Medford, OR 97501-3647 Telephone: (541) 776-6010
Crook, Deschutes, Harney, Hood River, Jefferson, Klamath, Lake, Sherman, Wasco, and Wheeler	Department of Environmental Quality Bend Office 300 SE Reed Market Road Bend, OR 97702-2237 Telephone: (541) 388-6146
Baker, Gilliam, Grant, Malheur, Morrow, Umatilla, Union, and Wallowa	Department of Environmental Quality Pendleton Office 700 SE Emigrant Avenue, Suite 330 Pendleton, OR 97801-2597 Telephone: (541) 276-4063

8.0 FEES

8.1. Annual Compliance Fee The Annual Fee specified in OAR 340-216-0020, Table 2, Part 2 for a General ACDP, Fee Class Four, is due on December 1 of each year this permit is in effect. An invoice indicating the amount, as determined by Department regulations, will be mailed prior to the above date.

8.2. Change of Ownership or Company Name Fee The non-technical permit modification fee specified in OAR 340-216-0020, Table 2, Part 3(a) is due with an application for changing the ownership or the name of the company.

8.3. Special Activity Fees The special activity fees specified in OAR 340-216-0020, Table 2, Part 3 (b through i) are due with an application to modify the permit.

8.4. Where to Submit Fees Fees must be submitted to:

Department of Environmental Quality
Business Office
811 SW Sixth Avenue
Portland, Oregon 97204-1390

9.0 GENERAL CONDITIONS AND DISCLAIMERS

9.1.	**Other Regulations**	In addition to the specific requirements listed in this permit, the permittee must comply with all other legal requirements enforceable by the Department.
9.2.	**Conflicting Conditions**	In any instance in which there is an apparent conflict relative to conditions in this permit, the most stringent conditions apply.
9.3.	**Masking of Emissions**	The permittee must not cause or permit the installation of any device or use any means designed to mask the emissions of an air contaminant that causes or is likely to cause detriment to health, safety, or welfare of any person or otherwise violate any other regulation or requirement.
9.4.	**Department Access**	The permittee must allow the Department's representatives access to the plant site and pertinent records at all reasonable times for the purposes of performing inspections, surveys, collecting samples, obtaining data, reviewing and copying air contaminant emissions discharge records and conducting all necessary functions related to this permit in accordance with ORS 468-095.
9.5.	**Permit Availability**	The permittee must have a copy of the permit available at the facility at all times.
9.6.	**Open Burning**	The permittee may not conduct any open burning except as allowed by OAR 340 Division 264.
9.7.	**Asbestos**	The permittee must comply with the asbestos abatement requirements in OAR 340, Division 248 for all activities involving asbestos-containing materials, including, but not limit to, demolition, renovation, repair, construction, and maintenance.
9.8.	**Property Rights**	The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations.
9.9.	**Termination, Revocation, or Modification**	The Department may modify or revoke this permit pursuant to OAR 340-216-0082 and 340-216-0084.

10.0 ABBREVIATIONS, ACRONYMS, AND DEFINITIONS

ACDP	Air Contaminant Discharge Permit	ASTM	American Society for Testing and Materials

AQMA	Air Quality Maintenance Area
calendar year	The 12-month period beginning January 1st and ending December 31st
CFR	Code of Federal Regulations
CO	carbon monoxide
DEQ	Oregon Department of Environmental Quality
dscf	dry standard cubic foot
EPA	US Environmental Protection Agency
FCAA	Federal Clean Air Act
gal	gallon(s)
gr/dscf	grains per dry standard cubic foot
HAP	Hazardous Air Pollutant as defined by OAR 340-244-0040
I&M	inspection and maintenance
lb	pound(s)
Metal HAP	chromium, manganese, lead, nickel
MMBtu	million British thermal units
NA	not applicable
NESHAP	National Emissions Standards for Hazardous Air Pollutants
NO_X	nitrogen oxides
NSPS	New Source Performance Standard
NSR	New Source Review
O_2	oxygen
OAR	Oregon Administrative Rules
ORS	Oregon Revised Statutes
O&M	operation and maintenance
Pb	lead
PCD	pollution control device
PM	particulate matter
PM_{10}	particulate matter less than 10 microns in size
ppm	part per million
PSD	Prevention of Significant Deterioration
PSEL	Plant Site Emission Limit
PTE	Potential to Emit
RACT	Reasonably Available Control Technology
scf	standard cubic foot
SER	Significant Emission Rate
SIC	Standard Industrial Code
SIP	State Implementation Plan
SO_2	sulfur dioxide
Special Control Area	as defined in OAR 340-204-0070
VE	visible emissions
VOC	volatile organic compound
year	A period consisting of any 12-consecutive calendar months

GENERAL

AIR CONTAMINANT DISCHARGE PERMIT

Department of Environmental Quality
Air Quality Division
811 SW Sixth Avenue
Portland, OR 97204-1390
Telephone: (503) 229-5359

This permit is issued in accordance with the provisions of ORS 468A.040 and incorporated into OAR 340-216-0060 by the Environmental Quality Commission on December 12, 2008 for the following source category:

Secondary nonferrous metals processing subject to Part 63, Title 40 of Code of Federal Regulations, Subpart TTTTTT, as adopted under OAR 340-244-0220. NAICS 331423, 331492.

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1.0 PERMIT ASSIGNMENT

1.1. Qualifications

All of the following conditions must be met in order to qualify for assignment to this General Air Contaminant Discharge Permit (ACDP):

a. The source is performing the following secondary nonferrous metal processing activities: brass and bronze ingot making, secondary magnesium processing, or secondary zinc processing using furnace melting operations to melt postconsumer nonferrous metal scrap to make products including bars, ingots, and blocks, or metal powders.

b. A Simple or Standard ACDP is not required for the source.

c. The source is not having ongoing, recurring or serious compliance problems.

1.2. Assignment

The Department will assign qualifying permittees to this permit that have and maintain a good record of compliance with the Department's Air Quality regulations and that the Department determines would be appropriately regulated by a General ACDP. The Department may rescind assignment of the permittee no longer meets the requirements the permit.

1.3. Permitted Activities

The permittee is allowed to discharge air contaminants from processes and activities related to the air contaminant source(s) listed on the first page of this permit until this permit expires, is modified, revoked or rescinded as long as conditions of this permit are complied with. If there are other emissions activities occurring at the site besides those listed on the cover page of this permit, the permittee may be required to obtain a Simple or Standard ACDP or additional General ACDP(s), if applicable.

1.4. Relation to local land use laws

This permit is not valid in Lane County, or at any location where the operation of the permittee's processes, activities, and insignificant activities would be in violation of any local land use or zoning laws. For operation in Lane County, contact Lane Regional Air Protection Agency for any necessary permits at (541) 736-1056. It is the permittee's sole responsibility to obtain local land use approvals as, or where, applicable before operating this facility at any location.

2.0 GENERAL EMISSION STANDARDS AND LIMITS

2.1. Visible Emissions The permittee must comply with the following visible emission limits, as applicable:

a. In Clackamas, Columbia, Multnomah, or Washington Counties, emissions from any air contaminant source must not equal or exceed 20% opacity for a period aggregating more than 30 seconds in any one hour.

b. In all other areas of the state, emissions from any air contaminant source must not equal or exceed 20% opacity for a period aggregating more than 3 minutes in any one hour.

2.2. Fugitive Emissions The permittee must take reasonable precautions to prevent fugitive dust emissions, such as but not limited to:

a. Treating vehicular traffic areas of the plant site under the control of the permittee.

b. Operating all air contaminant-generating processes so that fugitive type dust associated with the operation will be adequately controlled at all times.

c. Storing collected materials from air pollution control equipment in a covered container or other method equally effective in preventing the material from becoming airborne during storage and transfer.

2.3. Particulate Matter Fallout The permittee must not cause or permit the emission of any particulate matter larger than 250 microns in size at sufficient duration or quantity, as to create an observable deposition upon the real property of another person. The Department will verify that the deposition exists and will notify the permittee that the deposition must be controlled.

2.4. Nuisance and Odors The permittee must not cause or allow air contaminants from any source to cause a nuisance. Nuisance conditions will be verified by Department personnel.

2.5. Fuels and Fuel Sulfur Content The permittee must not use any fuel other than natural gas, propane, butane, ASTM grade fuel oils, or on-specification used oil.

a. Fuel oils must not contain more than:

i. 0.3% sulfur by weight for ASTM Grade 1 distillate oil;

ii. 0.5% sulfur by weight for ASTM Grade 2 distillate oil or on-specification used oil;

b. The permittee is allowed to use on-specification used oil that contains no more than 0.5% sulfur by weight. The permittee must obtain analyses from the marketer or, if generated on site, have the used oil analyzed, so that it can be demonstrated that the used oil does not exceed the used oil specifications contained in 40 CFR Part 279.11, Table 1.

3.0 SPECIFIC PERFORMANCE AND EMISSION STANDARDS

3.1. Emission Standards

The permittee must meet the following emission standards for all crushing and screening operations at a secondary zinc processing facility and all furnace melting operations located at any facility performing an activity listed in Condition 1.1.a:

a. Existing source standards (commenced construction or reconstruction on or before September 20, 2007): Route emissions through a fabric filter or baghouse that achieves a particulate matter (PM) control efficiency of at least 99.0 percent or an outlet PM concentration limit of 0.034 grams per dry standard cubic meter (0.015 grains per dry standard cubic feet (gr/dscf)).

b. New source standards (commenced construction or reconstruction after September 20, 2007): Route emissions through a fabric filter or baghouse that achieves a particulate matter (PM) control efficiency of at least 99.5 percent or an outlet PM concentration limit of 0.023 grams per dry standard cubic meter (0.010 grains per dry standard cubic feet (gr/dscf)).

4.0 OPERATION AND MAINTENANCE REQUIREMENTS

4.1. Startup, Shutdown, and Malfunction Provisions

At all times, including periods of startup, shutdown, and malfunction, the permittee must operate and maintain any affected source, including associated air pollution control devices and monitoring equipment, in a manner consistent with good air pollution control practices for minimizing emissions. During a period of startup, shutdown, or malfunction, this general duty to minimize emissions requires that the permittee reduce emissions from the source to the greatest extent which is consistent with safety and good air pollution control practices. The general duty to minimize emissions during a period of startup, shutdown, or malfunction does not require the permittee to achieve emission levels that would be required by the applicable standard at other times if this is not consistent with safety and good air pollution control practices, nor does it require the permittee to make any further efforts to reduce emissions if levels required by the applicable standard have been achieved. Malfunctions must be corrected as soon as practicable after their occurrence. To the extent that an unexpected event arises during a startup, shutdown, or malfunction, the permittee must comply by minimizing emissions during such a startup, shutdown, and malfunction event consistent with safety and good air pollution control practices.

5.0 PLANT SITE EMISSION LIMITS

5.1. Plant Site Emission Limits (PSEL)

Plant site emissions must not exceed the following:

Pollutant	Limit	Units
PM	24	tons per year
PM_{10}	14	tons per year
SO_2	39	tons per year
NO_X	39	tons per year
CO	99	tons per year
VOC	39	tons per year

5.2. PM_{10} PSEL for Medford-Ashland AQMA

For sources operating in the Medford-Ashland AQMA, plant site emissions of PM_{10} must not exceed the following:

Pollutant	Limit	Units
PM_{10}	4.5 49	tons per year pounds per day

5.3. Annual Period

The annual plant site emissions limits apply to any 12-consecutive calendar month period.

6.0 COMPLIANCE DEMONSTRATION

6.1. Fuel Sulfur Monitoring

If fuel oil is burned, the permittee must either obtain a certificate from the vendor stating that the fuel sulfur content complies with the limits in Condition 2.5 or have a sample of the fuel analyzed in accordance with the appropriate ASTM analytical procedures. If the permittee has samples analyzed for sulfur, a sample must be collected from the holding tank just after each shipment of oil is added to the tank.

6.2. Initial Control Device Inspection

For each new and existing source, the permittee must conduct an initial inspection of each baghouse as follows:

a. The permittee must visually inspect the system ductwork and baghouse unit for leaks.

b. Except as specified in Condition 6.2.e, the permittee must also inspect the inside of each baghouse for structural integrity and fabric filter condition.

c. The permittee must record the results of the inspection and any maintenance action as required in Condition 7.3.

d. The permittee must conduct the inspection prior to being assigned to this permit or prior to startup of the baghouse, whichever is later.

e. An initial inspection of the internal components of a baghouse is not required if an inspection has been performed within the past 12 months.

6.3. Performance Testing

Except as specified in paragraph (b) of this section, the permittee must conduct a performance test for each affected source according to the requirements in 40 CFR 63.7 and as follows. The performance test must be conducted prior to being assigned to this permit or within 180 days of startup of the affected source, whichever is later. The results in the performance test must be reported in the notification of compliance status.

a. Determine the concentration of PM according to the following test methods in 40 CFR part 60, appendices:

i. Method 1 or 1A (Appendix A–1) to select sampling port locations and the number of traverse points in each stack or duct. Sampling sites must be located at the outlet of the control device and prior to any releases to the atmosphere.

ii. Method 2, 2A, 2C, 2F, or 2G (Appendices A–1 and A–2) to determine the volumetric flow rate of the stack gas.

iii. Method 3, 3A, or 3B (Appendix A–2) to determine the dry molecular weight of the stack gas. The permittee may use ANSI/ASME PTC 19.10–1981, ‘‘Flue and Exhaust Gas Analyses’’ (incorporated by reference-see 40 CFR 63.14) as an alternative to

EPA Method 3B.

iv. Method 4 (Appendix A–3) to determine the moisture content of the stack gas.

v. Method 5 or 17 (Appendix A–3) to determine the concentration of particulate matter (front half filterable catch only). Three valid test runs are needed to comprise a performance test.

b. During the test, the permittee must operate each emissions source within ±10 percent of its normal process rate. The permittee must monitor and record the process rate during the test.

c. If owning or operating an existing affected source, the permittee is are not required to conduct a performance test if a prior performance test was conducted within the past 5 years of December 26, 2007 using the same methods specified in Conditions 6.3.a and 6.3.b and the permittee meets either of the following two conditions:

i. No process changes have been made since the test; or

ii. The permittee demonstrates that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process changes.

6.4. Periodic Inspections and Maintenance

For each existing source (commenced construction or reconstruction on or before September 20, 2007), the permittee must perform periodic inspections and maintenance of each baghouse following the initial baghouse inspection as follows:

a. Conduct weekly visual inspections of the system ductwork for leaks.

b. Conduct inspections of the interior of the baghouse for structural integrity and to determine the condition of the fabric filter every 12 months.

c. As an alternative to Condition 6.4.a or 6.4.b, the permittee may conduct a daily 30-minute visible emissions test using EPA Method 22.

d. If the results of the visual inspection or visible emissions test indicate a problem with the operation of the baghouse, including but not limited to air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in PM emissions, the permittee must take immediate corrective action to return the baghouse to normal operation according to the equipment manufacturer's specifications or instructions and record the corrective action taken.

6.5. Bag Leak Detection System

For each new source (commenced construction or reconstruction after September 20, 2007), the permittee must install, operate, and maintain a bag leak detection according to the following:

a. Each bag leak detection system must meet the following specifications and requirements:

i. The bag leak detection system must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 1 milligram per dry standard cubic meter (0.00044 grains per actual cubic foot) or less.

ii. The bag leak detection system sensor must provide output of relative PM loadings. The permittee must continuously record the output from the bag leak detection system using electronic or other means (e.g., using a strip chart recorder or a data logger).

iii. The bag leak detection system must be equipped with an alarm system that will sound when the system detects an increase in relative particulate loading over the alarm set point established according to Condition 6.5.a.iv, and the alarm must be located such that it can be heard by the appropriate plant personnel.

iv. In the initial adjustment of the bag leak detection system, the permittee must establish, at a minimum, the baseline output by adjusting the sensitivity (range) and the averaging period of the device, the alarm set points, and the alarm delay time.

v. Following initial adjustment, the permittee must not adjust the averaging period, alarm set point, or alarm delay time without approval from the Department except as provided in Condition 6.5.a.vi.

vi. Once per quarter, the permittee may adjust the sensitivity of the bag leak detection system to account for seasonal effects, including temperature and humidity, according to the procedures identified in the site-specific monitoring plan required by Condition 6.5.b.

vii. The permittee must install the bag leak detection sensor downstream of the fabric filter.

viii. Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.

b. The permittee must develop and submit to the Department for approval a site-specific monitoring plan for each bag leak detection system. The permittee must operate and maintain the bag leak detection system according to the site-specific monitoring plan at all times. Each monitoring plan must describe the following items:

i. Installation of the bag leak detection system;

ii. Initial and periodic adjustment of the bag leak detection system, including how the alarm set-point will be established;

iii. Operation of the bag leak detection system, including quality assurance procedures;

iv. How the bag leak detection system will be maintained, including a routine maintenance schedule and spare parts inventory list;

v. How the bag leak detection system output will be recorded and stored; and

vi. Corrective action procedures as specified in Condition 6.5.c. In approving the site-specific monitoring plan, the Department may allow the permittee more than 3 hours to alleviate a specific condition that causes an alarm if the permittee identifies in the monitoring plan this specific condition as one that could lead to an alarm, adequately explains why it is not feasible to alleviate this condition within 3 hours of the time the alarm occurs, and demonstrates that the requested time will ensure alleviation of this condition as expeditiously as practicable.

c. For each bag leak detection system, the permittee must initiate procedures to determine the cause of every alarm within 1 hour of the alarm. Except as provided in Condition 6.5.b.vi, the permittee must alleviate the cause of the alarm within 3 hours of the alarm by taking whatever corrective action(s) are necessary. Corrective actions may include, but are not limited to the following:

i. Inspecting the fabric filter for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in PM emissions;

ii. Sealing off defective bags or filter media;

iii. Replacing defective bags or filter media or otherwise repairing the control device;

iv. Sealing off a defective fabric filter compartment;

v. Cleaning the bag leak detection system probe or otherwise repairing the bag leak detection system; or

vi. Shutting down the process producing the PM emissions.

6.6. PSEL Compliance Monitoring Compliance with the PSEL is determined for each 12-consecutive calendar month period based on the following calculation for each pollutant:

$$E = \Sigma(EF \times P)/2000$$

where,

E = pollutant emissions (tons/yr);
EF = pollutant emission factor (see Condition 6.7);
P = process production

6.7. Emission Factors The permittee must use the default emission factors provided in Condition 13.0 for calculating pollutant emissions, unless alternative emission factors are approved by the Department. The permittee may request or the Department may require using alternative emission factors provided they are based on actual test data or other documentation (e.g., AP-42 compilation of emission factors) that has been reviewed and approved by the Department.

7.0 RECORDKEEPING REQUIREMENTS

7.1. Notifications The permittee must keep a copy of each Initial Notification and each Notification of Compliance Status, including all documentation supporting any Initial Notification or Notification of Compliance Status.

7.2. Operation and Maintenance The permittee must maintain the following records related to the operation and maintenance of the plant:

Monitored Parameter	Frequency
Certificate of analysis for used oil fuel demonstrating that fuel is on-specification	Per shipment or batch
Type and quantity of fuels used	Monthly
Fuel oil sulfur content	Per shipment
Amount of zinc slab, zinc oxide, and zinc dust produced, tons	Monthly
Amount of zinc used, tons	Monthly
Amount of zinc scrap processed, tons	Monthly
Amount of magnesium scrap processed, tons	Monthly
Amount of brass and bronze processed, tons	Monthly

7.3. Compliance Demonstration

The permittee must maintain records related to the following activities.

a. The results of visual inspections required in Conditions 6.2 and 6.4;

b. The results of visible emission tests required in Condition 6.4.c;

c. The records required in Conditions 7.3.a and 7.3.b must include:

   i. Date, place, time;

   ii. Person conducting the activity;

   iii. Technique or method used;

   iv. Operating conditions during the activity;

   v. Results, including any remedial actions taken;

d. The results of performance testing required in Condition 6.3;

e. The results of bag leak detection required in Condition 6.5.

7.4. Complaint Log

The permittee must maintain a log of all written complaints and complaints received via telephone that specifically refer to air pollution concerns associated to the permitted facility. The log must include a record of the permittee's actions to investigate the validity of each complaint and a record of actions taken for complaint resolution.

7.5. Retention of

All records must be maintained for a period of 5 years following the

Records date of each occurrence, measurement, maintenance, corrective action, report, or record. The permittee must hold the records on site for a period of two (2) years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, and make them available to the Department upon request.

8.0 REPORTING REQUIREMENTS

8.1. Annual Report

For each year this permit is in effect, the permittee must submit to the Department by February 15 two (2) copies of the following information for the previous calendar year:

a. Summary of the results of the visual inspections or visible emission testing required in Condition 6.4. At a minimum, report any inspection or emission test which resulted in remedial actions.

b. List of any leaks that were detected by the bag leak detection system required in Condition 6.5 which resulted in remedial actions.

c. Summary of complaints relating to air quality received by permittee during the year.

d. List permanent changes made in plant process, production levels, and pollution control equipment which affected air contaminant emissions.

e. List major maintenance performed on pollution control equipment.

f. Types and quantities of fuels burned on an annual basis (gallons or cubic feet).

g. Amount of zinc slab, zinc oxide, and zinc dust produced (tons).

h. Amount of zinc used (tons).

i. Amount of zinc scrap processed (tons).

j. Amount of magnesium scrap processed (tons).

k. Amount of brass and bronze processed (tons).

8.2. Notice of Change of Ownership or Company Name

The permittee must notify the Department in writing using a Departmental “Permit Application Form” within 60 days after the following:

a. Legal change of the name of the company as registered with the Corporations Division of the State of Oregon; or

b. Sale or exchange of the activity or facility.

8.3. Construction or Modification Notices

The permittee must notify the Department in writing using a Departmental "Notice of Construction Form," or "Permit Application Form," and obtain approval before:

a. Constructing, installing, or establishing a new stationary source that will cause an increase in any regulated pollutant emissions;

b. Making any physical change or change in operation of an existing stationary source that will cause an increase, on an hourly basis at full production, in any regulated pollutant emissions; or

c. Constructing or modifying any air pollution control equipment.

8.4. Where to Send Reports and Notices

The reports, with the permit number prominently displayed, must be sent to the Permit Coordinator for the region where the source is located as identified in Condition 9.2.

9.0 ADMINISTRATIVE REQUIREMENTS

9.1. Permit Renewal Application

A complete application for reassignment to this permit is due within 60 days after the permit is reissued. The Department will notify the permittee when the permit is reissued. The application must be sent to the appropriate regional office.

a. The permittee may submit an application for either a Simple or Standard ACDP at any time, but the permittee must continue to comply with the General ACDP until DEQ takes final action on the application.

b. If a complete application for reassignment to the General permit, or application made for a Simple or Standard permit in a timely manner, the permit will not be deemed to expire until final action has been taken on the application.

9.2. Permit Coordinator Addresses

All reports, notices, and applications should be directed to the Permit Coordinator for the area where the source is located. The Permit Coordinator addresses are as follows:

Counties	Permit Coordinator Address and Telephone
Clackamas, Clatsop, Columbia, Multnomah, Tillamook, and Washington	Department of Environmental Quality Northwest Region 2020 SW 4th Avenue, Suite 400 Portland, OR 97201-4987 Telephone: (503) 229-5582
Benton, Coos, Curry, Douglas, Jackson, Josephine, Lincoln, Linn, Marion, Polk, and Yamhill	Department of Environmental Quality Western Region 750 Front Street NE, Suite 120 Salem, OR 97301-1039 Telephone: (503) 378-5305
Baker, Crook, Deschutes, Gilliam, Grant, Harney, Hood River, Jefferson, Klamath, Lake, Malheur, Morrow, Sherman, Umatilla, Union, Wallowa, Wasco, Wheeler	Department of Environmental Quality Eastern Region 300 SE Reed Market Road Bend, OR 97702-2237 Telephone: (541) 388-6146 ext. 223

9.3. Department Contacts Information about air quality permits and the Department's regulations may be obtained from the DEQ web page at http://www.oregon.gov/DEQ/. All inquiries about this permit should be directed to the regional office for the area where the source is located. The Department's regional offices are as follows:

Counties	Office Address and Telephone
Clackamas, Clatsop, Columbia, Multnomah, Tillamook, and Washington	Department of Environmental Quality Portland Office 2020 SW 4th Avenue, Suite 400 Portland, OR 97201-4987 Telephone: (503) 229-5554
Benton, Lincoln, Linn, Marion, Polk, and Yamhill	Department of Environmental Quality Salem Office 750 Front Street NE, Suite 120 Salem, OR 97301-1039 Telephone: (503) 378-8240
Coos and Curry	Department of Environmental Quality Coos Bay Office 381 N Second Street Coos Bay, OR 97420-2270 Telephone: (541) 269-2721

Counties	Office Address and Telephone
Douglas, Jackson, and Josephine	Department of Environmental Quality Medford Office 221 W Stewart Avenue, Suite 201 Medford, OR 97501-3647 Telephone: (541) 776-6010
Crook, Deschutes, Gilliam, Harney, Hood River, Jefferson, Klamath, Lake, Malheur, Sherman, Wasco, and Wheeler	Department of Environmental Quality Bend Office 300 SE Reed Market Road Bend, OR 97702-2237 Telephone: (541) 388-6146
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HAP	Hazardous Air Pollutant as defined by OAR 340-244-0040
I&M	inspection and maintenance
lb	pound(s)
Metal HAP	chromium, manganese, lead, nickel
MMBtu	million British thermal units
NA	not applicable
NESHAP	National Emissions Standards for Hazardous Air Pollutants
NO_X	nitrogen oxides
NSPS	New Source Performance Standard
NSR	New Source Review
O_2	oxygen
OAR	Oregon Administrative Rules
ORS	Oregon Revised Statutes
O&M	operation and maintenance
Pb	lead
PCD	pollution control device
PM	particulate matter
PM_{10}	particulate matter less than 10 microns in size
ppm	part per million
PSD	Prevention of Significant Deterioration
PSEL	Plant Site Emission Limit
PTE	Potential to Emit
RACT	Reasonably Available Control Technology
scf	standard cubic foot
SER	Significant Emission Rate
SIC	Standard Industrial Code
SIP	State Implementation Plan
SO_2	sulfur dioxide
Special Control Area	as defined in OAR 340-204-0070
VE	visible emissions
VOC	volatile organic compound
year	A period consisting of any 12-consecutive calendar months

13.0 EMISSION FACTORS

Emissions device or activity	Pollutant	Emission Factor (EF)	Emission factor units
Secondary Zinc Processing			
Reverberatory Sweating – Fugitives	PM/PM10	1.3	lb/ton of product
Rotary Sweating	PM/PM_{10}	25	lb/ton zinc used
Rotary – Fugitives	PM/PM_{10}	0.90	lb/ton of product
Muffle Sweating	PM/PM_{10}	32	lb/ton zinc used
Muffle Sweating – Fugitives	PM/PM_{10}	1.07	lb/ton of product
Kettle Sweating – General Metallic Scrap	PM/PM_{10}	11	lb/ton zinc used
Kettle Sweating – Residual Scrap	PM/PM_{10}	25	lb/ton zinc used
Kettle Sweating – Fugitives	PM/PM_{10}	0.56	lb/ton of product
Electrical Resistance Sweating	PM/PM_{10}	10	lb/ton zinc used
Electrical Resistance Sweating – Fugitives	PM/PM_{10}	0.50	lb/ton processed
Crushing/ Screening – Fugitives	PM/PM_{10}	4.25	lb/ton of scrap processed
Sodium Carbonate Leaching Calcining	PM/PM_{10}	89	lb/ton zinc used
Kettle Pot Melting Furnace – Fugitives	PM/PM_{10}	0.01	lb/ton of product
Crucible Melting Furnace – Fugitives	PM/PM_{10}	0.01	lb/ton of product
Reverberatory Melting Furnace – Fugitives	PM/PM_{10}	0.01	lb/ton of product
Electric Induction Melting – Fugitives	PM/PM_{10}	0.01	lb/ton of product
Retort – Pouring	PM/PM_{10}	0.8	lb/ton of product
Retort – Casting	PM/PM_{10}	0.4	lb/ton of product
Muffle Distillation	PM/PM_{10}	45	lb/ton of product
Retort and Muffle Distillation – Fugitives	PM/PM_{10}	2.36	lb/ton of product
Retort Distillation/Oxidation	PM/PM_{10}	40	lb/ton of ZnO produced
Muffle Distillation/Oxidation	PM/PM_{10}	40	lb/ton of ZnO produced
Retort Reduction	PM/PM_{10}	47	lb/ton zinc used
Galvanizing	PM/PM_{10}	5	lb/ton zinc used
Casting – Fugitives	PM/PM_{10}	0.015	lb/ton of product
Secondary Magnesium Processing			
Pot Furnace –Uncontrolled	PM/PM_{10}	4.00	lb/ton of metal processed
Pot Furnace –Controlled	PM/PM_{10}	0.4	lb/ton of metal processed
Brass and Bronze Ingot Making			
Cupola – Scrap Brass	PM PM_{10} PM/PM_{10} (w/ ESP)	70 64.4 2.4	lb/ton ore processed lb/ton ore processed lb/ton ore processed

Emissions device or activity	**Pollutant**	**Emission Factor (EF)**	**Emission factor units**
Cupola – Fugitive Emissions	PM/PM_{10}	2.2	lb/ton ore processed
Reverberatory – Brass and Bronze	PM PM_{10} PM/PM_{10} (w/ FF)	36 21.2 2.6	lb/ton ore processed lb/ton ore processed lb/ton ore processed
Reverberatory – Fugitive Emissions	PM/PM_{10}	3.1	lb/ton ore processed
Rotary – Brass and Bronze	PM PM_{10} PM/PM_{10} (w/ ESP)	300 177 13	lb/ton ore processed lb/ton ore processed lb/ton ore processed
Rotary – Fugitive Emissions	PM/PM_{10}	2.6	lb/ton ore processed
Crucible and Pot – Brass and Bronze	PM PM_{10} PM/PM_{10} (w/ ESP)	21 12.4 1	lb/ton ore processed lb/ton ore processed lb/ton ore processed
Crucible and Pot – Fugitive	PM/PM_{10}	0.29	lb/ton ore processed
EAF – Brass and Bronze	PM PM_{10} PM/PM_{10} (w/ FF)	11 6.5 6	lb/ton ore processed lb/ton ore processed lb/ton ore processed
EIF – Brass and Bronze	PM/PM_{10} PM/PM_{10} (w/ FF)	20 0.7	lb/ton ore processed lb/ton ore processed
EIF – Fugitive	PM/PM_{10}	0.04	lb/ton ore processed
Fuel Usage			
Natural Gas, Propane, and Butane	PM/PM_{10}	10	lb/million cubic feet of gas burned
	SO_2	0.6	lb/million cubic feet of gas burned
	NO_X	2840	lb/million cubic feet of gas burned
	CO	399	lb/million cubic feet of gas burned
	VOC	116	lb/million cubic feet of gas burned
Oil	PM/PM_{10}	42.5	lb/1000 gallon of fuel burned
	SO_2	39.7	lb/1000 gallon of fuel burned
	NO_X	604	lb/1000 gallon of fuel

Emissions device or activity	Pollutant	Emission Factor (EF)	Emission factor units
			burned
	CO	130	lb/1000 gallon of fuel burned
	VOC	49.3	lb/1000 gallon of fuel burned

*Sulfur content of raw materials in percent

GENERAL
AIR CONTAMINANT DISCHARGE PERMIT

Department of Environmental Quality
Air Quality Division
811 SW Sixth Avenue
Portland, OR 97204-1390
Telephone: (503) 229-5359

This permit is issued in accordance with the provisions of ORS 468A.040 and incorporated into OAR 340-216-0060 by the Environmental Quality Commission on December 12, 2008 for the following source category:

Gasoline dispensing facilities, as a primary or secondary operation, subject to the Emission Standards for Gasoline Dispensing Facilities in OAR 340-244-0232 through 0252. Primary or Secondary NAICS 447110, 447190.

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1.0 PERMIT ASSIGNMENT

1.1	**Qualifications**	All of the following conditions must be met in order to qualify for assignment to this General Air Contaminant Discharge Permit (ACDP): a. The permittee is performing gasoline dispensing activities listed on the cover page of this permit, including supporting activities. b. A Simple or Standard ACDP is not required for the source. c. The source is not having ongoing, reoccurring or serious compliance problems. d. The source is not subject to stage II vapor collection system requirements. e. The source is not an agricultural operation as defined in ORS 468A.020. f. The source, if having exclusively above ground tanks, has monthly throughput of 10,000 gallons of gasoline per month or more or sells gasoline for use in motor vehicles.
1.2	**Assignment**	The Department will assign qualifying permittees to this permit that have and maintain a good record of compliance with the Department's Air Quality regulations and that the Department determines would be appropriately regulated by a General ACDP. The Department may rescind assignment if the permittee no longer meets the requirements of this permit.
1.3	**Permitted Activities**	This permit allows the permittee to discharge air contaminants from processes and activities related to the air contaminant source(s) listed on the first page of this permit until this permit expires, is modified, revoked or rescinded. If there are other emissions activities occurring at the site besides those listed on the cover page of this permit, the permittee may be required to obtain a Simple or Standard ACDP or additional General ACDP(s), if applicable.
1.4	**Relation to local land use laws**	This permit is not valid in Lane County, or at any location where the operation of the permittee's processes, activities, and insignificant activities would be in violation of any local land use or zoning laws. It is the permittee's sole responsibility to obtain local land use approvals as, or where, applicable before operating this facility at any location. For operations within Lane County, contact the Lane Regional Air Protection Agency for obtaining

any necessary permits at (541) 736-1056.

2.0 GENERAL EMISSION STANDARDS AND LIMITS

2.1	**Visible Emissions**	The permittee must comply with the following visible emission limits, as applicable: a. In Clackamas, Columbia, Multnomah, or Washington Counties, emissions from any air contaminant source other than fuel burning equipment must not equal or exceed 20% opacity for a period aggregating more than 30 seconds in any one hour. b. In all other areas of the state, emissions from any air contaminant source must not equal or exceed 20% opacity for a period aggregating more than 3 minutes in any one hour.
2.2	**Fugitive Emissions**	The permittee must take reasonable precautions to prevent fugitive dust emissions, such as but not limited to: a. Treating vehicular traffic areas of the plant site under the control of the permittee. b. Operating all air contaminant-generating processes so that fugitive type dust associated with the operation will be adequately controlled at all times. c. Storing collected materials from air pollution control equipment in a covered container or other method equally effective in preventing the material from becoming airborne during storage and transfer.
2.3	**Particulate Matter Fallout**	The permittee must not cause or permit the emission of any particulate matter larger than 250 microns in size at sufficient duration or quantity as to create an observable deposition upon the real property of another person when notified by the Department that the deposition exists and must be controlled.
2.4	**Nuisance and Odors**	The permittee must not cause or allow air contaminants from any source to cause a nuisance. Nuisance conditions will be verified by Department personnel.

3.0 PLANT SITE EMISSION LIMITS

3.1 Plant Site Emission Limits (PSEL)

Plant site emissions must not exceed 39 tons of VOC per year.

3.2 Annual Period

The annual plant site emissions limits apply to any 12-consecutive calendar month period.

4.0 OPERATION AND MAINTENANCE REQUIREMENTS

4.1 Applicability of Operation and Maintenance Requirements

a. Work practice requirements and submerged fill requirements: If having a gasoline storage tank, the permittee must comply with the requirements in Condition 4.3. If having a gasoline storage tank with a rated capacity of more than 250 gallons, the permittee must comply with the requirements in Condition 4.4.

b. Stage I vapor balance requirements: The permittee must comply with requirements in Condition 4.5 for the following tanks, unless as provided in Condition 4.7. The permittee is not required to comply with Condition 4.5 for a tank(s) equipped with a floating roof, or the equivalent.

   i. All tanks with a capacity of 250 gallons or more located at a facility with an annual throughput of 480,000 gallons of gasoline or more;

   ii. All tanks with a capacity of 250 gallons or more located at a facility with an average monthly throughput of 100,000 gallons of gasoline or more;

   iii. All tanks with a capacity of 250 gallons or more located at a facility in Clackamas, Multnomah, or Washington County with an annual throughput of 120,000 gallons of gasoline or more; and

   iv. All tanks with a capacity of 1,500 gallons or more located in the Portland AQMA, Medford AQMA, or Salem SATS.

c. Dual-point vapor balance requirements: If the facility was constructed or reconstructed after November 9, 2006 or if a new tank is installed at a facility with a monthly throughput of 100,000 gallons of gasoline or more, the permittee must comply with the requirements in Condition

4.6, unless as provided in Condition 4.7.

d. Operation and maintenance of vapor balance system: The permittee must comply with the requirements of Condition 4.8 for any gasoline storage tank equipped with a vapor balance system.

4.2 Compliance Dates

a. New or reconstructed facility: For a facility for which construction or reconstruction commenced after November 9, 2006, the permittee must be in compliance with the operation and maintenance requirements in Conditions 4.3 through 4.8, as applicable, upon assignment to this permit or upon startup, whichever is later, except as follows. The permittee must comply with Conditions **Error! Reference source not found.** and **Error! Reference source not found.** no later than July 1, 2009 or upon startup, whichever is later.

b. Existing facility: For a facility for which construction or reconstruction commenced on or before November 9, 2006, the permittee must comply with the operation and maintenance requirements in Conditions 4.3 through 4.8, as applicable, no later than January 10, 2011, except as follows:

i. For a tank with a capacity between 1,500 and 40,000 gallons and located in the Portland AQMA, Medford AQMA, or Salem SATS, the permittee must be in compliance with the standards in Conditions 4.4 and 4.5 upon assignment to this permit.

ii. For a tank located at an affected source located in Clackamas, Multnomah, or Washington County, whose annual throughput exceeds 120,000 gallons, the permittee must comply with the standards in Conditions 4.4 and 4.5 upon assignment to this permit.

iii. The permittee must comply with Conditions 4.3b and 4.3c no later than July 1, 2009 or upon startup, whichever is later.

4.3 Work Practices

The permittee must not allow gasoline to be handled in a manner that would result in vapor releases to the atmosphere for extended periods of time. Measures to be taken include, but are not limited to, the following:

a. Minimize gasoline spills;

b. Do not top off vehicle tanks;

c. Post a sign instructing attendants not to top off vehicle tanks;

d. Clean up spills as expeditiously as practicable;

e. Cover all open gasoline containers and all gasoline storage tank fill-pipes with a gasketed seal when not in use;

f. Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators;

g. When loading gasoline storage tanks, ensure the connection of any existing operable vapor balance system;

h. Ensure the cargo tank unloading complies with Conditions 4.3a through 4.3g.

4.4 Submerged Filling

The permittee must only load or allow to be loaded gasoline into storage tanks at the facility using submerged filling.

a. Submerged fill pipes installed on or before November 9, 2006, must be no more than 12 inches from the bottom of the storage tank.

b. Submerged fill pipes installed after November 9, 2006, must be no more than 6 inches from the bottom of the storage tank.

4.5 Stage I Vapor Balance System

The permittee must install and operate a vapor balance system on gasoline storage tanks that meets the following criteria:

a. All vapor connections and lines on the storage tank must be equipped with closures that seal upon disconnect.

b. The vapor line from the gasoline storage tank to the gasoline cargo tank must be vapor-tight.

c. The vapor balance system must be designed such that the pressure in the tank truck does not exceed 18 inches water pressure or 5.9 inches water vacuum during product transfer.

d. The vapor recovery and product adaptors, and the method of connection with the delivery elbow, must be designed so as to prevent the over-tightening or loosening of fittings during normal delivery operations.

e. If a gauge well separate from the fill tube is used, it must be provided with a submerged drop tube that extends the same distance from the bottom of the storage tank as specified in Condition 4.4.

f. Liquid fill connections for all systems must be equipped with vapor-tight caps.

g. Pressure/vacuum vent valves must be installed on the storage tank vent pipes. The pressure specifications for PV vent valves must be: a positive pressure setting of 2.5 to 6.0 inches of water and a negative pressure setting of 6.0 to 10.0 inches of water. The total leak rate of all PV vent valves at an affected facility, including connections, must not exceed 0.17 cubic foot per hour at a pressure of 2.0 inches of water and 0.63 cubic foot per hour at a vacuum of 4 inches of water.

h. The vapor balance system must be capable of meeting the static pressure performance requirement of the following equation:

$$Pf = 2e^{-500.887/v}$$

Where:
Pf = Minimum allowable final pressure, inches of water.
v = Total ullage affected by the test, gallons.
e = Dimensionless constant equal to approximately 2.718.
2 = The initial pressure, inches water.

4.6 Dual-Point Vapor Balance System

The permittee must equip the following gasoline storage tanks, located at a facility with monthly throughput of 100,000 gallons of gasoline or more, with a dual-point vapor balance system and comply with the requirements of Condition 4.5.

a. Each gasoline storage tank installed after November 9, 2006; and

b. Each gasoline storage tank at a facility constructed or reconstructed after November 9, 2006.

4.7 Alternative Vapor Balance System

If, prior to January 10, 2008, the permittee operates a vapor balance system that meets the following requirements, the permittee will be deemed in compliance with Condition 4.5 and 4.6.

a. Achieves emissions reduction of at least 90 percent.

b. Operates using management practices at least as stringent as those in Condition 4.5.

4.8 Operation and Maintenance of Vapor Balance

When a gasoline storage tank is equipped with a vapor balance system, the permittee must:

a. Ensure the connection and proper operation of the vapor

System balance system whenever gasoline is being loaded.

b. In order to ensure that vapor balance equipment is maintained at its highest rate of efficiency, the permittee must establish an inspection and maintenance program to discover potential or actual equipment failures.

c. All equipment associated with the vapor balance system must be maintained to be vapor tight and in good working order.

d. Replace, repair or modify any worn or ineffective component or design element within 24 hours to ensure the vapor-tight integrity and efficiency of the vapor balance system. If repair parts must be ordered, either a written or verbal order for those parts must be initiated within 2 working days of detecting such a leak. Such repair parts must be installed within 5 working days after receipt.

5.0 COMPLIANCE DEMONSTRATION

5.1 Testing Requirements

If required to install a vapor balance system, the owner or operator must comply with the following requirements at the time of installation of a vapor balance system or a new gasoline storage tank. Each owner or operator of a facility with monthly throughput of 100,000 gallons of gasoline or more must also comply with the following requirements every 3 years following the time of installation of a vapor balance system or a new gasoline storage tank.

a. Demonstrate compliance with the leak rate and cracking pressure requirements in Condition 4.5g, for pressure-vacuum vent valves installed on gasoline storage tanks using one of the following test methods:

   i. California Air Resources Board Vapor Recovery Test Procedure TP–201.1E,—Leak Rate and Cracking Pressure of Pressure/Vacuum Vent Valves, adopted October 8, 2003; or

   ii. An alternative test methods and procedures in accordance with the alternative test method requirements in 40 CFR 63.7(f).

b. Demonstrate compliance with the static pressure performance requirement in Condition 4.5h, for the vapor balance system by conducting a static pressure test on gasoline storage tanks using one of the following test methods:

i. California Air Resources Board Vapor Recovery Test Procedure TP–201.3,—Determination of 2-Inch WC Static Pressure Performance of Vapor Recovery Systems of Dispensing Facilities, adopted April 12, 1996, and amended March 17, 1999; or

ii. An alternative test methods and procedures in accordance with the alternative test method requirements in 40 CFR 63.7(f).

5.2 Alternative Testing Requirements

If choosing, under the provisions of **40 CFR 63.6(g)**, to use a vapor balance system other than that described in Condition 4.5 or 4.6, the permittee must demonstrate to the Department, the equivalency of their vapor balance system to that described in Condition 4.5 or 4.6 using the following procedures:

a. The permittee must demonstrate initial compliance by conducting an initial performance test on the vapor balance system to demonstrate that the vapor balance system achieves 95 percent reduction using the California Air Resources Board Vapor Recovery Test Procedure TP–201.1,—Volumetric Efficiency for Phase I Vapor Recovery Systems, adopted April 12, 1996, and amended February 1, 2001, and October 8, 2003, (incorporated by reference, see **40 CFR 63.14**).

b. The permittee must, during the initial performance test required under Condition 5.2a, determine and document alternative acceptable values for the leak rate and cracking pressure requirements specified in Condition 4.5g and for the static pressure performance requirement in Condition 4.5h.

c. The permittee must comply with the testing requirements specified in Condition 5.1.

5.3 PSEL Compliance Monitoring

Compliance with the PSEL is determined for each 12-consecutive calendar month period based on the gasoline or other material throughput for the reporting period.

a. Facilities storing product exclusively in underground storage tanks will be presumed to be in compliance with the yearly VOC PSEL provided total product throughput does not exceed 35,000,000 gallons during any 12-consecutive calendar month period.

b. Facilities storing product in above-ground storage tanks or a mix of above and underground tanks will be presumed to be in compliance with the yearly VOC PSEL provided total product throughput does not exceed 8,500,000 gallons during any 12-consecutive calendar month period.

c. If the permittee exceeds the operational throughput thresholds stated above, the permittee must demonstrate compliance with the yearly PSEL on a monthly basis as follows:

$$E_{12\text{-month}} = \sum (T + L_L)/2000$$

Where:

$E_{12\text{-month}}$ = Total VOC emissions (in tons) for the 12-month period

T = monthly storage tank emissions of each product. T is to be calculated using EPA TANKS 4.0 emission calculation software. Contact DEQ to obtain a copy of this software if one is needed.

L_L = loading loss emissions from truck loading operations

$$L_L = 1.25 * \frac{PM}{T_P + 460}$$

Where:

P = product's true vapor pressure

M = molecular weight of product's vapors

T_P = temperature of product in degrees F

Values for P and M may be obtained from tables 7.1-2 and 7.1-3 of EPA's AP-42

6.0 RECORDKEEPING REQUIREMENTS

6.1 Operation and Maintenance The permittee must maintain the records related to the operation and maintenance of the facility and associated vapor balance equipment as specified in Condition 4.8. Any vapor balance component defect must be logged and tracked by station personnel on a monthly basis using forms provided by the Department or a reasonable facsimile. Completed inspection log sheets must be made readily available at the facility to Department personnel upon request.

6.2	**Annual and Monthly Throughput**	The annual and monthly throughput of gasoline, in gallons, for each calendar month.
6.3	**VOC Emissions**	Annual VOC emissions if required to perform a compliance demonstration calculation in accordance with Condition 5.3c.
6.4	**Facility Changes**	List of permanent changes made at the facility and vapor balance equipment which may affect air emissions;
6.5	**Retention of Records**	Unless otherwise specified, all records must be maintained on site for a period of five (5) years and made available to the Department upon request.

7.0 REPORTING REQUIREMENTS

7.1	**Notifications**	a. The permittee must submit a notification to the Department when the permittee becomes subject to the vapor balance requirements in Condition 4.1b. A form for this purpose is available from the Department. b. Notification of Compliance Status: The permittee must submit a Notification of Compliance Status to the Department by the compliance date specified in Condition 4.2. The Notification of Compliance Status must be signed by a responsible official who must certify its accuracy and must indicate whether the source has complied with the requirements of Conditions 4.3 through 4.7. c. Notification of Performance Test: The permittee must notify the Department in writing of his or her intention to conduct a performance test at least 60 calendar days prior to initiating testing required by Condition 5.1 and 5.2 to allow the Department to review and approve the site-specific test plan and to have an observer present during the test.
7.2	**Reporting of Test Results**	If subject to the management practices in Conditions 4.5 through 4.7, the permittee must report to the Department the results of all volumetric efficiency tests required under Conditions 5.1 and 5.2. Reports must be submitted within 30 days of the completion of the performance testing.
7.3	**Relocation Notice**	The permittee must not install or operate the facility or any portion of the facility at any new site without first providing written notice to the Permit Coordinator in the appropriate regional office. The written notice must include the date of the proposed move, approximate dates of operation, a detailed map

showing access to the new site, and a description of the air pollution controls and procedures to be installed, operated, and practiced at the new site. The permittee must not operate individual components of the facility at more than one site at a time without obtaining additional permits.

7.4	**Notice of Change of Ownership or Company Name**	The permittee must notify the Department in writing within 60 days after the following. A form for this purpose is available from the Department. a. Legal change of the name of the company as registered with the Corporations Division of the State of Oregon; or b. Sale or exchange of the activity or facility.
7.5	**Construction or Modification Notices**	The permittee must notify the Department in writing and obtain approval before the following. A form for this purpose is available from the Department. a. Constructing or installing any new source of air contaminant emissions, including air pollution control equipment; b. Modifying or altering an existing source that may significantly affect the emission of air contaminants; c. Making any physical change which increases emissions; or d. Changing the method of operation, the process, or the fuel use, or increasing the normal hours of operation that result in increased emissions.
7.6	**Where to Send Reports and Notices**	The reports, with the permit number and source identification number prominently displayed, must be sent to the appropriate regional office where the source is located as identified in Condition 8.2.

8.0 ADMINISTRATIVE REQUIREMENTS

8.1	**Reassignment to the General ACDP**	A complete application for reassignment to this permit is due within 60 days after the permit is reissued. The Department will notify the permittee when the permit is reissued. The application must be sent to the appropriate regional office. a. If the Department is delinquent in renewing the permit, the existing permit will remain in effect and the permittee must comply with the conditions of the permit until such time that the permit is reissued and the source is reassigned to the permit.

b. The permittee may submit an application for either a Simple or Standard ACDP at any time, but the permittee must continue to comply with the General ACDP until the Department takes final action on the Simple or Standard ACDP application.

c. If a complete application for reassignment to the General ACDP or Simple or Standard ACDP is filed with the Department in a timely manner, the permit will not be deemed to expire until final action has been taken on the application.

8.2 Permit Coordinator Addresses

All reports, notices, and applications should be directed to the air quality permit coordinator for the area where the source is located. The permit coordinator addresses are as follows:

Counties	Permit Coordinator Address and Telephone
Clackamas, Clatsop, Columbia, Multnomah, Tillamook, and Washington	Department of Environmental Quality Northwest Region 2020 SW 4th Avenue, Suite 400 Portland, OR 97201-4987 Telephone: (503) 229-5582
Benton, Coos, Curry, Douglas, Jackson, Josephine, Lincoln, Linn, Marion, Polk, and Yamhill	Department of Environmental Quality Western Region 750 Front Street NE, Suite 120 Salem, OR 97301-1039 Telephone: (503) 378-5305
Baker, Crook, Deschutes, Gilliam, Grant, Harney, Hood River, Jefferson, Klamath, Lake, Malheur, Morrow, Sherman, Umatilla, Union, Wallowa, Wasco, Wheeler	Department of Environmental Quality Eastern Region 300 SE Reed Market Road Bend, OR 97702-2237 Telephone: (541) 388-6146 ext. 223

8.3 Department Contacts

Information about air quality permits and the Department's regulations may be obtained from the DEQ web page at http://www.oregon.gov/DEQ/. All inquiries about this permit should be directed to the regional office for the area where the source is located. The Department's regional offices are as follows:

Counties	**Office Address and Telephone**
Clackamas, Clatsop, Columbia, Multnomah, Tillamook, and Washington	Department of Environmental Quality Portland Office 2020 SW 4th Avenue, Suite 400 Portland, OR 97201-4987 Telephone: (503) 229-5554
Benton, Lincoln, Linn, Marion, Polk, and Yamhill	Department of Environmental Quality Salem Office 750 Front Street NE, Suite 120 Salem, OR 97301-1039 Telephone: (503) 378-8240
Coos and Curry	Department of Environmental Quality Coos Bay Office 381 N Second Street Coos Bay, OR 97420-2270 Telephone: (541) 269-2721
Douglas, Jackson, and Josephine	Department of Environmental Quality Medford Office 221 W Stewart Avenue, Suite 201 Medford, OR 97501-3647 Telephone: (541) 776-6010
Crook, Deschutes, Gilliam, Harney, Hood River, Jefferson, Klamath, Lake, Malheur, Sherman, Wasco, and Wheeler	Department of Environmental Quality Bend Office 300 SE Reed Market Road Bend, OR 97702-2237 Telephone: (541) 388-6146
Baker, Grant, Morrow, Umatilla, Union, and Wallowa	Department of Environmental Quality Pendleton Office 700 SE Emigrant Avenue, Suite 330 Pendleton, OR 97801-2597 Telephone: (541) 276-4063

9.0 FEES

9.1 Annual Compliance Fee The Annual Fee specified in OAR 340-216-0090, Table 2, Part 2(c) for a Fee Class Five General ACDP is due on December 1 of each year this permit is in effect. An invoice indicating the amount, as determined by Department regulations, will be mailed prior to the above date.

9.2 Change of Ownership or Company Name Fee The non-technical permit modification fee specified in OAR 340-216-0090, Table 2, Part 3(a) is due with an application for changing the ownership or the name of the company of a source assigned to this permit.

9.3	**Where to Submit Fees**	Fees must be submitted to: Department of Environmental Quality Business Office 811 SW Sixth Avenue Portland, Oregon 97204-1390

10.0 GENERAL CONDITIONS AND DISCLAIMERS

10.1	**Other Regulations**	In addition to the specific requirements listed in this permit, the permittee must comply with all other legal requirements enforceable by the Department.
10.2	**Conflicting Conditions**	In any instance in which there is an apparent conflict relative to conditions in this permit, the most stringent conditions apply.
10.3	**Masking of Emissions**	The permittee must not cause or permit the installation of any device or use any means designed to mask the emissions of an air contaminant that causes or is likely to cause detriment to health, safety, or welfare of any person or otherwise violate any other regulation or requirement.
10.4	**Department Access**	The permittee must allow the Department's representatives access to the plant site and pertinent records at all reasonable times for the purposes of performing inspections, surveys, collecting samples, obtaining data, reviewing and copying air contaminant emissions discharge records and conducting all necessary functions related to this permit in accordance with ORS 468-095.
10.5	**Permit Availability**	The permittee must have a copy of the permit available at the facility at all times.
10.6	**Open Burning**	The permittee may not conduct any open burning except as allowed by OAR 340 Division 264.
10.7	**Asbestos**	The permittee must comply with the asbestos abatement requirements in OAR 340, Division 248 when conducting any demolition, renovation, repair, construction, and maintenance activities at the facility.
10.8	**Property Rights**	The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations.
10.9	**Termination, Revocation, or Modification**	The Commission may modify or revoke this permit pursuant to OAR 340-216-0060(3) and (4).

11.0 ABBREVIATIONS, ACRONYMS, AND DEFINITIONS

ACDP	Air Contaminant Discharge Permit
Annual throughput	Amount of gasoline transferred into a gasoline dispensing facility during 12 consecutive months
ASTM	American Society for Testing and Materials
AQMA	Air Quality Maintenance Area
Bbl	barrel (42 gal)
calendar year	The 12-month period beginning January 1st and ending December 31st
CFR	Code of Federal Regulations
CO	Carbon monoxide
Date	mm/dd/yy
DEQ	Oregon Department of Environmental Quality
Dscf	dry standard cubic foot
EPA	US Environmental Protection Agency
FCAA	Federal Clean Air Act
gal	gallon(s)
gr/dscf	grains per dry standard cubic foot
HAP	Hazardous Air Pollutant as defined by OAR 340-244-0040
ID	identification number
I&M	inspection and maintenance
lb	pound(s)
MMBtu	million British thermal units
NA	not applicable
NESHAP	National Emissions Standards for Hazardous Air Pollutants
NO_X	nitrogen oxides
NSPS	New Source Performance Standard
NSR	New Source Review
O_2	oxygen
OAR	Oregon Administrative Rules
ORS	Oregon Revised Statutes
O&M	operation and maintenance
PCD	pollution control device
PM	particulate matter
PM_{10}	particulate matter less than 10 microns in size
ppm	part per million
ppmv	part per million by volume
PSD	Prevention of Significant Deterioration
PSEL	Plant Site Emission Limit
PTE	Potential to Emit
RACT	Reasonably Available Control Technology
SKATS	Salem-Kaiser Area Transportation Study
scf	standard cubic foot
SER	Significant Emission Rate
SERP	Source Emission Reduction Plan
SIC	Standard Industrial Code
SIP	State Implementation Plan
SO_2	sulfur dioxide
Special Control Area	as defined in OAR 340-204-0070

VE	visible emissions	year	A period consisting of any 12-consecutive calendar months
VOC	volatile organic compound		

GENERAL
AIR CONTAMINANT DISCHARGE PERMIT

Department of Environmental Quality
Air Quality Division
811 SW Sixth Avenue
Portland, OR 97204-1390
Telephone: (503) 229-5359

This permit is issued in accordance with the provisions of ORS 468A.040 and incorporated into OAR 340-216-0060 by the Environmental Quality Commission on December 12, 2008 for the following source category:

Gasoline dispensing facilities, as a primary or secondary operation, subject to the stage II vapor collection system requirements in OAR 340-242-0520 and the Emission Standards for Gasoline Dispensing Facilities in OAR 340-244-0232 through 0252. Primary or Secondary NAICS 447110, 447190.

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1.0 PERMIT ASSIGNMENT

1.1 Qualifications

All of the following conditions must be met in order to qualify for assignment to this General Air Contaminant Discharge Permit (ACDP):

a. The permittee is performing gasoline dispensing activities listed on the cover page of this permit, including supporting activities.

b. A Simple or Standard ACDP is not required for the source.

c. The source is not having ongoing, reoccurring or serious compliance problems.

d. The source is subject to stage II vapor collection system requirements.

e. The source is not an agricultural operation as defined in ORS 468A.020

1.2 Assignment

The Department will assign qualifying permittees to this permit that have and maintain a good record of compliance with the Department's Air Quality regulations and that the Department determines would be appropriately regulated by a General ACDP. The Department may rescind assignment if the permittee no longer meets the requirements of this permit.

1.3 Permitted Activities

This permit allows the permittee to discharge air contaminants from processes and activities related to the air contaminant source(s) listed on the first page of this permit until this permit expires, is modified, revoked or rescinded. If there are other emissions activities occurring at the site besides those listed on the cover page of this permit, the permittee may be required to obtain a Simple or Standard ACDP or additional General ACDP(s), if applicable.

1.4 Relation to local land use laws

This permit is not valid in Lane County, or at any location where the operation of the permittee's processes, activities, and insignificant activities would be in violation of any local land use or zoning laws. It is the permittee's sole responsibility to obtain local land use approvals as, or where, applicable before operating this facility at any location. For operations within Lane County, contact the Lane Regional Air Protection Agency for obtaining any necessary permits at (541) 736-1056.

2.0 GENERAL EMISSION STANDARDS AND LIMITS

2.1	**Visible Emissions**	The permittee must comply with the following visible emission limits, as applicable: a. In Clackamas, Columbia, Multnomah, or Washington Counties, emissions from any air contaminant source other than fuel burning equipment must not equal or exceed 20% opacity for a period aggregating more than 30 seconds in any one hour. b. In all other areas of the state, emissions from any air contaminant source must not equal or exceed 20% opacity for a period aggregating more than 3 minutes in any one hour.
2.2	**Fugitive Emissions**	The permittee must take reasonable precautions to prevent fugitive dust emissions, such as but not limited to: a. Treating vehicular traffic areas of the plant site under the control of the permittee. b. Operating all air contaminant-generating processes so that fugitive type dust associated with the operation will be adequately controlled at all times. c. Storing collected materials from air pollution control equipment in a covered container or other method equally effective in preventing the material from becoming airborne during storage and transfer.
2.3	**Particulate Matter Fallout**	The permittee must not cause or permit the emission of any particulate matter larger than 250 microns in size at sufficient duration or quantity as to create an observable deposition upon the real property of another person when notified by the Department that the deposition exists and must be controlled.
2.4	**Nuisance and Odors**	The permittee must not cause or allow air contaminants from any source to cause a nuisance. Nuisance conditions will be verified by Department personnel.

3.0 PLANT SITE EMISSION LIMITS

3.1 Plant Site Emission Limits (PSEL)

Plant site emissions must not exceed 39 tons of VOC per year.

3.2 Annual Period

The annual plant site emissions limits apply to any 12-consecutive calendar month period.

4.0 OPERATION AND MAINTENANCE REQUIREMENTS

4.1 Applicability of Operation and Maintenance Requirements

a. Work practice requirements and submerged fill requirements: If having a gasoline storage tank, the permittee must comply with the requirements in Condition 4.3. If having a gasoline storage tank with a rated capacity of more than 250 gallons, the permittee must comply with the requirements in Condition and 4.4.

b. Stage I vapor balance requirements: The permittee must comply with requirements in Condition 4.5 for the following tanks, unless as provided in Condition 4.7. The permittee is not required to comply with Condition 4.5 for a tank(s) equipped with a floating roof, or the equivalent.

   i. All tanks with a capacity of 250 gallons or more located at a facility with an annual throughput of 480,000 gallons of gasoline or more;

   ii. All tanks with a capacity of 250 gallons or more located at a facility with an average monthly throughput of 100,000 gallons of gasoline or more;

   iii. All tanks with a capacity of 250 gallons or more located at a facility in Clackamas, Multnomah, or Washington County with an annual throughput of 120,000 gallons of gasoline or more; and

   iv. All tanks with a capacity of 1,500 gallons or more located in the Portland AQMA, Medford AQMA, or Salem SATS.

c. Dual-point vapor balance requirements: If the facility was constructed or reconstructed after November 9, 2006 or if new tank is installed at a facility with a monthly throughput of 100,000 gallons of gasoline or more, the permittee must comply with the requirements in Condition

4.6, unless as provided in Condition 4.7.

d. Operation and maintenance of vapor balance system: The permittee must comply with the requirements of Condition 4.8 for any gasoline storage tank equipped with a vapor balance system.

e. Stage II vapor collection requirements: If the facility is located in Clackamas, Multnomah, or Washington County and has an annual throughput of 600,000 gallons of gasoline or more, the permittee must comply with the requirements of Condition 4.9.

4.2 Compliance Dates

a. New or reconstructed facility: For a facility for which construction or reconstruction commenced after November 9, 2006, the permittee must be in compliance with the operation and maintenance requirements in Conditions 4.3 through 4.6, as applicable, upon assignment to this permit or upon startup, whichever is later, except as follows. The permittee must comply with Conditions 4.3b and 4.3c no later than July 1, 2009 or upon startup, whichever is later.

b. Existing facility: For a facility for which construction or reconstruction commenced on or before November 9, 2006, the permittee must comply with the operation and maintenance requirements in Conditions 4.3 through 4.6, as applicable, no later than January 10, 2011, except as follows:

i. For tanks with a capacity between 1,500 and 40,000 gallons and located in the Portland AQMA, Medford AQMA, or Salem SATS, the permittee must be in compliance with the standards in Condition 4.4 and 4.5 upon assignment to this permit.

ii. For tanks located at an affected source located in Clackamas, Multnomah, or Washington County, whose annual throughput exceeds 120,000 gallons, the permittee must be in compliance with the standards in Condition 4.4 and 4.5 upon assignment to this permit.

iii. The permittee must comply with Conditions 4.3b and 4.3c no later than July 1, 2009 or upon startup, whichever is later.

4.3 Work Practices

The permittee must not allow gasoline to be handled in a manner that would result in vapor releases to the atmosphere for extended periods of time. Measures to be taken include, but are not limited to, the following:

a. Minimize gasoline spills;

b. Do not top off vehicle tanks;

c. Post a sign instructing attendants not to top off vehicle tanks;

d. Clean up spills as expeditiously as practicable;

e. Cover all open gasoline containers and all gasoline storage tank fill-pipes with a gasketed seal when not in use;

f. Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators;

g. When loading gasoline storage tanks, connect existing operable vapor balance systems that meet the requirements of

h. Ensure the cargo tank unloading complies with Conditions 4.3a through 4.3g.

4.4 Submerged Filling

The permittee must only load or allow to be loaded gasoline into storage tanks at the facilities using submerged filling.

a. Submerged fill pipes installed on or before November 9, 2006, must be no more than 12 inches from the bottom of the storage tank.

b. Submerged fill pipes installed after November 9, 2006, must be no more than 6 inches from the bottom of the storage tank.

4.5 Stage I Vapor Balance System

The permittee must install and operate a vapor balance system on gasoline storage tanks that meets the following criteria:

a. All vapor connections and lines on the storage tank must be equipped with closures that seal upon disconnect.

b. The vapor line from the gasoline storage tank to the gasoline cargo tank must be vapor-tight.

c. The vapor balance system must be designed such that the pressure in the tank truck does not exceed 18 inches water pressure or 5.9 inches water vacuum during product transfer.

d. The vapor recovery and product adaptors, and the method of connection with the delivery elbow, must be designed so as to prevent the over-tightening or loosening of fittings during normal delivery operations.

e. If a gauge well separate from the fill tube is used, it must be provided with a submerged drop tube that extends the same distance from the bottom of the storage tank as specified in Condition 4.4.

f. Liquid fill connections for all systems must be equipped with vapor-tight caps.

g. Pressure/vacuum vent valves must be installed on the storage tank vent pipes. The pressure specifications for PV vent valves must be: a positive pressure setting of 2.5 to 6.0 inches of water and a negative pressure setting of 6.0 to 10.0 inches of water. The total leak rate of all PV vent valves at an affected facility, including connections, must not exceed 0.17 cubic foot per hour at a pressure of 2.0 inches of water and 0.63 cubic foot per hour at a vacuum of 4 inches of water.

h. The vapor balance system must be capable of meeting the static pressure performance requirement of the following equation:

$$Pf = 2e^{-500.887/v}$$

Where:
Pf = Minimum allowable final pressure, inches of water.
v = Total ullage affected by the test, gallons.
e = Dimensionless constant equal to approximately 2.718.
2 = The initial pressure, inches water.

4.6 Dual-Point Vapor Balance System

The permittee must equip the following gasoline storage tanks, located at a facility with monthly throughput of 100,000 gallons of gasoline or more, with a dual-point vapor balance system and comply with the requirements of Condition 4.5.

a. Each gasoline storage tank installed after November 9, 2006; and

b. Each gasoline storage tank constructed or reconstructed after November 9, 2006.

4.7 Alternative Vapor Balance System

If, prior to January 10, 2008, the permittee operates a vapor balance system that meets the following requirements, the permittee will be deemed in compliance with Condition 4.5 and 4.6.

a. Achieves emissions reduction of at least 90 percent.

b. Operates using management practices at least as stringent as those in Condition 4.5.

4.8 Operation and Maintenance of Vapor Balance System and Vapor Collection System

When a gasoline storage tank is equipped with a stage I vapor balance system and/or the facility is equipped with a stage II vapor collection system, the permittee must:

a. Ensure the connection and proper operation of the stage I vapor balance system and stage II vapor collection system whenever gasoline is being loaded, unloaded, and dispensed.

b. Provide adequate training and written instructions to the operator of the facility and the gasoline transport vehicle.

c. In order to ensure that the stage I vapor balance equipment and stage II vapor collection equipment is maintained at its highest rate of efficiency, establish an inspection and maintenance program to discover potential or actual equipment failures.

d. Maintain all equipment associated with the stage I vapor balance system and the stage II vapor collection system to be vapor tight and in good working order.

e. Replace, repair or modify any worn or ineffective component or design element within 24 hours to ensure the vapor-tight integrity and efficiency of the stage I vapor balance system and stage II vapor collection system. If repair parts must be ordered, either a written or verbal order for those parts must be initiated within 2 working days of detecting such a leak. Such repair parts must be installed within 5 working days after receipt.

4.9 Stage II Vapor Collection System

The permittee must not transfer or allow the transfer of gasoline into a motor vehicle fuel tank unless the facility is equipped with a stage II vapor collection system which must be approved by the Department before it is installed.

a. Underground piping requirements are described in OAR 340-150-0001 through 340-150-0003 and **40 CFR 280.20(d)**. Systems installed according to American Petroleum Institute Publication 1615, "Installation of Underground Petroleum Storage System" or Petroleum Equipment Institute Publication RP100, "Recommended Practices for Installation of Underground Liquid Storage Systems" or American National Standards Institute

Standard B31.4 "Liquid Petroleum Transportation Piping System" are considered approved systems.

b. Above-ground stage II equipment requirements are based on systems recently approved in other states with established stage II program. Contact DEQ’s Air Quality Division for the list of approved equipment. Any other proposed equivalent systems must be submitted to the DEQ’s Air Quality Division for approval before installation.

c. Approval of a stage II vapor collection system by the Department does not relieve the permittee of the responsibility to comply with other applicable codes and regulations pertaining to fire prevention, weights and measures and safety matters.

5.0 COMPLIANCE DEMONSTRATION

5.1 Vapor Balance System Testing Requirements

If required to install a vapor balance system, the owner or operator must comply with the following requirements at the time of installation of a vapor balance system or a new gasoline storage tank. Each owner or operator of a facility with monthly throughput of 100,000 gallons of gasoline or more must also comply with the following requirements every 3 years following the time of installation of a vapor balance system or a new gasoline storage tank.

a. Demonstrate compliance with the leak rate and cracking pressure requirements in Condition 4.5g, for pressure-vacuum vent valves installed on gasoline storage tanks using one of the following test methods:

   i. California Air Resources Board Vapor Recovery Test Procedure TP–201.1E,—Leak Rate and Cracking Pressure of Pressure/Vacuum Vent Valves, adopted October 8, 2003; or

   ii. An alternative test methods and procedures in accordance with the alternative test method requirements in 40 CFR 63.7(f).

b. Demonstrate compliance with the static pressure performance requirement in Condition 4.5h, for the vapor balance system by conducting a static pressure test on gasoline storage tanks using one of the following test methods:

i. California Air Resources Board Vapor Recovery Test Procedure TP–201.3,—Determination of 2-Inch WC Static Pressure Performance of Vapor Recovery Systems of Dispensing Facilities, adopted April 12, 1996, and amended March 17, 1999; or

ii. An alternative test methods and procedures in accordance with the alternative test method requirements in 40 CFR 63.7(f).

5.2 Vapor Collection System Installation and Testing

The permittee must comply with the following:

a. Install piping in accordance with standards in OAR 340 Division 150;

b. Piping must be installed by a licensed installation service provider pursuant to OAR 340 Division 160; and

c. Piping must be tested prior to being placed into operation by an installation or tank tightness testing provider licensed pursuant to OAR 340 Division 160.

d. Test methods are based on methods used in other states with established stage II programs. Contact DEQ's Air Quality Division for copies of approved test methods.

5.3 Alternative Testing Requirements

If choosing, under the provisions of **40 CFR 63.6(g)**, to use a vapor balance system other than that described in Condition 4.5 or 4.6, the permittee must demonstrate to the Department, the equivalency of their vapor balance system to that described in Condition 4.5 or 4.6 using the following procedures:

a. The permittee must demonstrate initial compliance by conducting an initial performance test on the vapor balance system to demonstrate that the vapor balance system achieves 95 percent reduction using the California Air Resources Board Vapor Recovery Test Procedure TP–201.1,—Volumetric Efficiency for Phase I Vapor Recovery Systems, adopted April 12, 1996, and amended February 1, 2001, and October 8, 2003, (incorporated by reference, see **40 CFR 63.14**).

b. The permittee must, during the initial performance test required under Condition 5.3a, determine and document alternative acceptable values for the leak rate and cracking pressure requirements specified in Condition 4.5g and for the static pressure performance requirement in Condition 4.5h.

c. The permittee must comply with the testing requirements specified in Condition 5.1.

5.4 PSEL Compliance Monitoring

Compliance with the PSEL is determined for each 12-consecutive calendar month period based on the gasoline or other material throughput for the reporting period.

a. Facilities storing product exclusively in underground storage tanks will be presumed to be in compliance with the yearly VOC PSEL provided total product throughput does not exceed 35,000,000 gallons during any 12-consecutive calendar month period.

b. Facilities storing product in above-ground storage tanks or a mix of above and underground tanks will be presumed to be in compliance with the yearly VOC PSEL provided total product throughput does not exceed 8,500,000 gallons during any 12-consecutive calendar month period.

c. If the permittee exceeds the operational throughput thresholds stated above, the permittee must demonstrate compliance with the yearly PSEL on a monthly basis as follows:

$$E_{12\text{-month}} = \sum (T + L_L)/2000$$

Where:

$E_{12\text{-month}}$ = Total VOC emissions (in tons) for the 12-month period

T = monthly storage tank emissions of each product. T is to be calculated using EPA TANKS 4.0 emission calculation software. Contact DEQ to obtain a copy of this software if one is needed.

L_L = loading loss emissions from truck loading operations

$$L_L = 1.25 * \frac{PM}{T_P + 460}$$

Where:

P = product's true vapor pressure

M = molecular weight of product's vapors

T_P = temperature of product in degrees F

Values for P and M may be obtained from tables 7.1-2 and 7.1-3 of EPA's AP-42

6.0 RECORDKEEPING REQUIREMENTS

6.1	**Operation and Maintenance**	The permittee must maintain the records related to the operation and maintenance of the facility and associated vapor balance and vapor collection equipment as specified in Condition 4.8. Any vapor balance or vapor collection component defect must be logged and tracked by station personnel on a monthly basis using forms provided by the Department or a reasonable facsimile. Completed inspection log sheets must be made readily available at the facility to Department personnel upon request.
6.2	**Annual and Monthly Throughput**	The annual and monthly throughput of gasoline, in gallons, for each calendar month.
6.3	**VOC Emissions**	Annual VOC emissions if required to perform a compliance demonstration calculation in accordance with Condition 5.4c.
6.4	**Facility Changes**	List of permanent changes made at the facility and vapor balance equipment which may affect air emissions;
6.5	**Retention of Records**	Unless otherwise specified, all records must be maintained on site for a period of five (5) years and made available to the Department upon request.

7.0 REPORTING REQUIREMENTS

7.1 **Notifications**

The permittee must submit the following notifications, as applicable:

a. The permittee must submit a notification to the Department when the permittee becomes subject to vapor balance requirements (see Condition 4.1b). A form for this purpose is available from the Department.

b. Notification of Compliance Status: The permittee must submit a Notification of Compliance Status to the Department by the compliance date specified in Condition 4.2. The Notification of Compliance Status must be signed by a responsible official who must certify its accuracy and must indicate whether the source has complied with the requirements of Conditions 4.3 through 4.7.

c. Notification of Performance Test: The permittee must notify the Department in writing of his or her intention to conduct a performance test at least 60 calendar days prior to initiating testing required by Condition 5.1 and 5.3 to allow the Department to review and approve the site-specific test plan and to have an observer present during the test.

7.2	**Reporting of Test Results**	If subject to the management practices in Conditions 4.5 through 4.9, the permittee must report to the Department the results of all tests required under Conditions 5.1 through 5.3. Reports must be submitted within 30 days of the completion of the performance testing.
7.3	**Relocation Notice**	The permittee must not install or operate the facility or any portion of the facility at any new site without first providing written notice to the Permit Coordinator in the appropriate regional office. The written notice must include the date of the proposed move, approximate dates of operation, a detailed map showing access to the new site, and a description of the air pollution controls and procedures to be installed, operated, and practiced at the new site. The permittee must not operate individual components of the facility at more than one site at a time without obtaining additional permits.
7.4	**Notice of Change of Ownership or Company Name**	The permittee must notify the Department in writing using a Departmental "Permit Application Form" within 60 days after the following: a. Legal change of the name of the company as registered with the Corporations Division of the State of Oregon; or b. Sale or exchange of the activity or facility.
7.5	**Construction or Modification Notices**	The permittee must notify the Department in writing using a Departmental "Notice of Construction Form," or "Permit Application Form," and obtain approval before: a. Constructing or installing any new source of air contaminant emissions, including air pollution control equipment; b. Modifying or altering an existing source that may significantly affect the emission of air contaminants; c. Making any physical change which increases emissions; or d. Changing the method of operation, the process, or the fuel use, or increasing the normal hours of operation that result in increased emissions.
7.6	**Where to Send Reports and**	The reports, with the permit number and source identification number prominently displayed, must be sent to the Permit

Notices Coordinator for the region where the source is located as identified in Condition 8.2. The mailing address for the EPA Regional Office is as follows:

Air Operating Permits
EPA Region X
Mail Stop OAQ-108
1200 Sixth Ave
Seattle WA 98101-3188

8.0 ADMINISTRATIVE REQUIREMENTS

8.1 Reassignment to the General ACDP A complete application for reassignment to this permit is due within 60 days after the permit is reissued. The Department will notify the permittee when the permit is reissued. The application must be sent to the appropriate regional office.

a. If the Department is delinquent in renewing the permit, the existing permit will remain in effect and the permittee must comply with the conditions of the permit until such time that the permit is reissued and the source is reassigned to the permit.

b. The permittee may submit an application for either a Simple or Standard ACDP at any time, but the permittee must continue to comply with the General ACDP until the Department takes final action on the Simple or Standard ACDP application.

c. If a complete application for reassignment to the General ACDP or Simple or Standard ACDP is filed with the Department in a timely manner, the permit will not be deemed to expire until final action has been taken on the application.

8.2 Permit Coordinator Addresses All reports, notices, and applications should be directed to the air quality permit coordinator for the area where the source is located. The permit coordinator addresses are as follows:

Counties	Permit Coordinator Address and Telephone
Clackamas, Clatsop, Columbia, Multnomah, Tillamook, and Washington	Department of Environmental Quality Northwest Region 2020 SW 4th Avenue, Suite 400 Portland, OR 97201-4987 Telephone: (503) 229-5582

Benton, Coos, Curry, Douglas, Jackson, Josephine, Lincoln, Linn, Marion, Polk, and Yamhill	Department of Environmental Quality Western Region 750 Front Street NE, Suite 120 Salem, OR 97301-1039 Telephone: (503) 378-5305
Baker, Crook, Deschutes, Gilliam, Grant, Harney, Hood River, Jefferson, Klamath, Lake, Malheur, Morrow, Sherman, Umatilla, Union, Wallowa, Wasco, Wheeler	Department of Environmental Quality Eastern Region 300 SE Reed Market Road Bend, OR 97702-2237 Telephone: (541) 388-6146 ext. 223

8.3 Department Contacts

Information about air quality permits and the Department's regulations may be obtained from the DEQ web page at http://www.oregon.gov/DEQ/. All inquiries about this permit should be directed to the regional office for the area where the source is located. The Department's regional offices are as follows:

Counties	Office Address and Telephone
Clackamas, Clatsop, Columbia, Multnomah, Tillamook, and Washington	Department of Environmental Quality Portland Office 2020 SW 4th Avenue, Suite 400 Portland, OR 97201-4987 Telephone: (503) 229-5554
Benton, Lincoln, Linn, Marion, Polk, and Yamhill	Department of Environmental Quality Salem Office 750 Front Street NE, Suite 120 Salem, OR 97301-1039 Telephone: (503) 378-8240
Coos and Curry	Department of Environmental Quality Coos Bay Office 381 N Second Street Coos Bay, OR 97420-2270 Telephone: (541) 269-2721
Douglas, Jackson, and Josephine	Department of Environmental Quality Medford Office 221 W Stewart Avenue, Suite 201 Medford, OR 97501-3647 Telephone: (541) 776-6010

Counties	Office Address and Telephone
Crook, Deschutes, Harney, Hood River, Jefferson, Klamath, Lake, Sherman, Wasco, and Wheeler	Department of Environmental Quality Bend Office 300 SE Reed Market Road Bend, OR 97702-2237 Telephone: (541) 388-6146
Baker, Gilliam, Grant, Malheur, Morrow, Umatilla, Union, and Wallowa	Department of Environmental Quality Pendleton Office 700 SE Emigrant Avenue, Suite 330 Pendleton, OR 97801-2597 Telephone: (541) 276-4063

9.0 FEES

9.1 Annual Compliance Fee The Annual Fee specified in OAR 340-216-0090, Table 2, Part 2(c) for a Fee Class Four General ACDP is due on **December 1** of each year this permit is in effect. An invoice indicating the amount, as determined by Department regulations, will be mailed prior to the above date.

9.2 Change of Ownership or Company Name Fee The non-technical permit modification fee specified in OAR 340-216-0090, Table 2, Part 3(a) is due with an application for changing the ownership or the name of the company of a source assigned to this permit.

9.3 Where to Submit Fees Fees must be submitted to:

Department of Environmental Quality
Business Office
811 SW Sixth Avenue
Portland, Oregon 97204-1390

10.0 GENERAL CONDITIONS AND DISCLAIMERS

10.1 Other Regulations In addition to the specific requirements listed in this permit, the permittee must comply with all other legal requirements enforceable by the Department.

10.2 Conflicting Conditions In any instance in which there is an apparent conflict relative to conditions in this permit, the most stringent conditions apply.

10.3 Masking of Emissions The permittee must not cause or permit the installation of any device or use any means designed to mask the emissions of an air contaminant that causes or is likely to cause detriment to health, safety, or welfare of any person or otherwise violate any other regulation or requirement.

10.4	**Department Access**	The permittee must allow the Department's representatives access to the plant site and pertinent records at all reasonable times for the purposes of performing inspections, surveys, collecting samples, obtaining data, reviewing and copying air contaminant emissions discharge records and conducting all necessary functions related to this permit in accordance with ORS 468-095.
10.5	**Permit Availability**	The permittee must have a copy of the permit available at the facility at all times.
10.6	**Open Burning**	The permittee may not conduct any open burning except as allowed by OAR 340 Division 264.
10.7	**Asbestos**	The permittee must comply with the asbestos abatement requirements in OAR 340, Division 248 when conducting any demolition, renovation, repair, construction, and maintenance activities at the facility.
10.8	**Property Rights**	The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations.
10.9	**Termination, Revocation, or Modification**	The Commission may modify or revoke this permit pursuant to OAR 340-216-0060(3) and (4).

11.0 ABBREVIATIONS, ACRONYMS, AND DEFINITIONS

ACDP	Air Contaminant Discharge Permit
Annual throughput	Amount of gasoline transferred into a gasoline dispensing facility during 12 consecutive months
ASTM	American Society for Testing and Materials
AQMA	Air Quality Maintenance Area
bbl	barrel (42 gal)
calendar year	The 12-month period beginning January 1st and ending December 31st
CFR	Code of Federal Regulations
CO	carbon monoxide
date	mm/dd/yy
DEQ	Oregon Department of Environmental Quality
dscf	dry standard cubic foot
EPA	US Environmental Protection Agency
FCAA	Federal Clean Air Act
gal	gallon(s)
gr/dscf	grains per dry standard cubic foot
HAP	Hazardous Air Pollutant as defined by OAR 340-244-0040
ID	identification number

I&M	inspection and maintenance
lb	pound(s)
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NO_X	nitrogen oxides
NSPS	New Source Performance Standard
NSR	New Source Review
O_2	Oxygen
OAR	Oregon Administrative Rules
ORS	Oregon Revised Statutes
O&M	operation and maintenance
PCD	pollution control device
PM	particulate matter
PM_{10}	particulate matter less than 10 microns in size
ppm	part per million
ppmv	part per million by volume
PSD	Prevention of Significant Deterioration
PSEL	Plant Site Emission Limit
PTE	Potential to Emit
RACT	Reasonably Available Control Technology
scf	standard cubic foot
SER	Significant Emission Rate
SERP	Source Emission Reduction Plan
SIC	Standard Industrial Code
SIP	State Implementation Plan
SO_2	sulfur dioxide
Special Control Area	as defined in OAR 340-204-0070
VE	visible emissions
VOC	volatile organic compound
year	A period consisting of any 12-consecutive calendar months

GENERAL
AIR CONTAMINANT DISCHARGE PERMIT

Department of Environmental Quality
Air Quality Division
811 SW Sixth Avenue
Portland, OR 97204-1390
Telephone: (503) 229-5359

This permit is issued in accordance with the provisions of ORS 468A.040 and incorporated into OAR 340-216-0060 by the Environmental Quality Commission on December 12, 2008 for the following source category:

Wood preserving facilities subject to Part 63, Title 40 of Code of Federal Regulations, Subpart QQQQQQ, as adopted under OAR 340-244-0220. NAICS 321114.

TABLE OF CONTENTS

1.0 PERMIT ASSIGNMENT

1.1. Qualifications

All of the following conditions must be met in order to qualify for assignment to this General Air Contaminant Discharge Permit (ACDP):

a. The permittee is performing wood preserving activities using any wood preservative containing chromium, arsenic, dioxins, or methylene chloride.

b. A Simple or Standard ACDP is not required for the source.

c. The source is not having ongoing, recurring or serious compliance problems.

1.2. Assignment

The Department will assign qualifying permittees to this permit that have and maintain a good record of compliance with the Department's Air Quality regulations and that the Department determines would be appropriately regulated by a General ACDP. The Department may rescind assignment of the permittee no longer meets the requirements of the permit.

1.3. Permitted Activities

The permittee is allowed to discharge air contaminants from processes and activities related to the air contaminant source(s) listed on the first page of this permit until this permit expires, is modified, revoked or rescinded as long as conditions of this permit are complied with. If there are other emissions activities occurring at the site besides those listed on the cover page of this permit, the permittee may be required to obtain a Simple or Standard ACDP or additional General ACDP(s), if applicable.

1.4. Relation to local land use laws

This permit is not valid in Lane County, or at any location where the operation of the permittee's processes, activities, and insignificant activities would be in violation of any local land use or zoning laws. For operation in Lane County, contact Lane Regional Air Protection Agency for any necessary permits at (541) 736-1056. It is the permittee's sole responsibility to obtain local land use approvals as, or where, applicable before operating this facility at any location.

2.0 GENERAL EMISSION STANDARDS AND LIMITS

2.1. Visible Emissions The permittee must comply with the following visible emission limits, as applicable:

a. In Clackamas, Columbia, Multnomah, or Washington Counties, emissions from any air contaminant source must not equal or exceed 20% opacity for a period aggregating more than 30 seconds in any one hour.

b. In all other areas of the state, emissions from any air contaminant source must not equal or exceed 20% opacity for a period aggregating more than 3 minutes in any one hour.

2.2. Fugitive Emissions The permittee must take reasonable precautions to prevent fugitive dust emissions, such as but not limited to:

a. Treating vehicular traffic areas of the plant site under the control of the permittee.

b. Operating all air contaminant-generating processes so that fugitive type dust associated with the operation will be adequately controlled at all times.

c. Storing collected materials from air pollution control equipment in a covered container or other method equally effective in preventing the material from becoming airborne during storage and transfer.

2.3. Particulate Matter Fallout The permittee must not cause or permit the emission of any particulate matter larger than 250 microns in size at sufficient duration or quantity, as to create an observable deposition upon the real property of another person. The Department will verify that the deposition exists and will notify the permittee that the deposition must be controlled.

2.4. Nuisance and Odors The permittee must not cause or allow air contaminants from any source to cause a nuisance. Nuisance conditions will be verified by Department personnel.

2.5. Fuels and Fuel Sulfur Content The permittee must not use any fuel other than natural gas, propane, butane, ASTM grade fuel oils, or on-specification used oil.

a. Fuel oils must not contain more than:

i. 0.3% sulfur by weight for ASTM Grade 1 distillate oil;

ii. 0.5% sulfur by weight for ASTM Grade 2 distillate oil or on-specification used oil;

b. The permittee is allowed to use on-specification used oil that contains no more than 0.5% sulfur by weight. The permittee must obtain analyses from the marketer or, if generated on site, have the used oil analyzed, so that it can be demonstrated that the used oil does not exceed the used oil specifications contained in 40 CFR Part 279.11, Table 1.

3.0 SPECIFIC PERFORMANCE AND EMISSION STANDARDS

3.1. Work Practice Standards

The permittee must prepare and operate according to a management practice plan to minimize air emissions from the preservative treatment of wood. The permittee may use standard operating procedures to meet the requirements for a management practice plan if it includes the minimum activities required for a management practice plan. The management practice plan must include, but is not limited to, the following activities:

a. Minimize preservative usage;

b. Store treated wood product on drip pads or in a primary containment area to convey preservative drippage to a collection system until drippage has ceased;

c. For the pressure treatment process, fully drain the retort to the extent practicable, prior to opening the retort door;

d. Promptly collect any spills; and

e. Perform relevant corrective actions or preventative measures in the event of a malfunction before resuming operations.

3.2. Pressure Treatment Standards

The preservative must be applied to the wood product inside a retort or similarly enclosed vessel.

3.3. Thermal Treatment Standards

The preservative must be applied using process treatment tanks equipped with an air scavenging system to control emissions.

4.0 OPERATION AND MAINTENANCE REQUIREMENTS

4.1. Startup, Shutdown, and Malfunction Provisions

At all times, including periods of startup, shutdown, and malfunction, the permittee must operate and maintain any affected source, including associated air pollution control devices and monitoring equipment, in a manner consistent with good air pollution control practices for minimizing emissions. During a period of startup, shutdown, or malfunction, this general duty to minimize emissions requires that the permittee reduce emissions from the source to the greatest extent which is consistent with safety and good air pollution control practices. The general duty to minimize emissions during a period of startup, shutdown, or malfunction does not require the permittee to achieve emission levels that would be required by the applicable standard at other times if this is not consistent with safety and good air pollution control practices, nor does it require the permittee to make any further efforts to reduce emissions if levels required by the applicable standard have been achieved. Malfunctions must be corrected as soon as practicable after their occurrence. To the extent that an unexpected event arises during a startup, shutdown, or malfunction, the permittee must comply by minimizing emissions during such a startup, shutdown, and malfunction event consistent with safety and good air pollution control practices.

5.0 PLANT SITE EMISSION LIMITS

5.1. Plant Site Emission Limits (PSEL)

Plant site emissions must not exceed the following:

Pollutant	Limit	Units
PM	24	tons per year
PM_{10}	14	tons per year
SO_2	39	tons per year
NO_X	39	tons per year
CO	99	tons per year
VOC	39	tons per year
Single HAP	9	tons per year
Combined HAPs	24	tons per year

5.2. PM_{10} PSEL for Medford-Ashland

For sources operating in the Medford-Ashland AQMA, plant site emissions of PM_{10} must not exceed the following:

AQMA	Pollutant	Limit	Units
	PM_{10}	4.5	tons per year
		49	pounds per day

5.3. Annual Period The annual plant site emissions limits apply to any 12-consecutive calendar month period.

6.0 COMPLIANCE DEMONSTRATION

6.1. Fuel Sulfur Monitoring If fuel oil is burned, the permittee must either obtain a certificate from the vendor stating that the fuel sulfur content complies with the limits in Condition 2.5 or have a sample of the fuel analyzed in accordance with the appropriate ASTM analytical procedures. If the permittee has samples analyzed for sulfur, a sample must be collected from the holding tank just after each shipment of oil is added to the tank.

6.2. PSEL Compliance Monitoring Compliance with the PSEL is determined for each 12-consecutive calendar month period based on the following calculation for each pollutant:

$$E = \Sigma(EF \times P)/2000$$

where,

E = pollutant emissions (tons/yr);

EF = pollutant emission factor (see Condition 6.3);

P = process production

6.3. Emission Factors The permittee must use the default emission factors provided IN Condition 12.0 for calculating pollutant emissions, unless alternative emission factors are approved by the Department. The permittee may request or the Department may require using alternative emission factors provided they are based on actual test data or other documentation (e.g., AP-42 compilation of emission factors) that has been reviewed and approved by the Department.

7.0 RECORDKEEPING REQUIREMENTS

7.1. Notifications The permittee must keep a copy of each Initial Notification and each Notification of Compliance Status, including all documentation supporting any Initial Notification or Notification of Compliance Status.

7.2. Operation and The permittee must maintain the following records related to the

Maintenance operation and maintenance of the plant:

a. Sulfur content from vendor certification of each shipment of fuel oil, if used at the plant.

b. Daily (Medford/Ashland AQMA only), monthly and annual operating parameters as shown in the table below:

Emissions Unit	**Process Parameter**	**Units**
Natural gas-fired boilers or heaters	fuel combusted	cubic feet (ft^3)
Propane, butane, or oil-fired boilers or heaters	fuel combusted	gallons
Wood-fired boilers	steam production	pounds of steam
Cyclones	material throughput by type of material	bone dry ton (BDT)
Kiln	material throughput	thousand board feet (MBF)
Surface coating VOCs	material usage	gallons or pounds
	VOC content	pounds per gallon or weight %
	HAP content (single and combined)	pounds per gallon or weight %
Wood preserving	wood preserved	thousand cubic feet (Mft3)

7.3. Work Practices The permittee must maintain records related to the following activities.

a. Maintain records on the type of treatment process and types and amounts of wood preservatives used at the facility;

b. For the pressure treatment process, maintain charge records identifying pressure reading(s) inside the retorts (or similarly enclosed vessel); and

c. For the thermal treatment process, maintain records that the air scavenging system is in place and operated properly during the treatment process.

7.4. Complaint Log The permittee must maintain a log of all written complaints and complaints received via telephone that specifically refer to air pollution concerns associated to the permitted facility. The log must include a record of the permittee's actions to investigate the validity of each complaint and a record of actions taken for complaint resolution.

7.5. Retention of Records

All records must be maintained for a period of 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. The permittee must hold the records on site for a period of two (2) years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, and make them available to the Department upon request.

8.0 REPORTING REQUIREMENTS

8.1. Annual Report

The permittee must submit to the Department by February 15 of each year this permit is in effect, two (2) copies of the following information for the preceding calendar year:

a. Annual emissions as calculated according to Conditions 6.2 and 6.3, including the supporting process parameter and emission factor information.

b. Summary of complaints relating to air quality received by permittee during the year.

c. List permanent changes made in plant process, production levels, and pollution control equipment which affected air contaminant emissions.

8.2. Deviation Report

The permittee must report any deviation from the requirements of this permit within 30 days of the deviation.

8.3. Notice of Change of Ownership or Company Name

The permittee must notify the Department in writing using a Departmental "Permit Application Form" within 60 days after the following:

a. Legal change of the name of the company as registered with the Corporations Division of the State of Oregon; or

b. Sale or exchange of the activity or facility.

8.4. Construction or Modification Notices

The permittee must notify the Department in writing using a Departmental "Notice of Construction Form," or "Permit Application Form," and obtain approval before:

a. Constructing, installing, or establishing a new stationary source that will cause an increase in any regulated pollutant emissions;

b. Making any physical change or change in operation of an existing stationary source that will cause an increase, on an hourly basis at full production, in any regulated pollutant emissions; or

c. Constructing or modifying any air pollution control equipment.

8.5. Where to Send Reports and Notices The reports, with the permit number prominently displayed, must be sent to the Permit Coordinator for the region where the source is located as identified in Condition 9.2.

9.0 ADMINISTRATIVE REQUIREMENTS

9.1. Permit Renewal Application A complete application for reassignment to this permit is due within 60 days after the permit is reissued. The Department will notify the permittee when the permit is reissued. The application must be sent to the appropriate regional office.

a. The permittee may submit an application for either a Simple or Standard ACDP at any time, but the permittee must continue to comply with the General ACDP until DEQ takes final action on the application.

b. If a complete application for reassignment to the General permit, or application made for a Simple or Standard permit in a timely manner, the permit will not be deemed to expire until final action has been taken on the application.

9.2. Permit Coordinator Addresses All reports, notices, and applications should be directed to the Permit Coordinator for the area where the source is located. The Permit Coordinator addresses are as follows:

Counties	Permit Coordinator Address and Telephone
Clackamas, Clatsop, Columbia, Multnomah, Tillamook, and Washington	Department of Environmental Quality Northwest Region 2020 SW 4th Avenue, Suite 400 Portland, OR 97201-4987 Telephone: (503) 229-5582
Benton, Coos, Curry, Douglas, Jackson, Josephine, Lincoln, Linn, Marion, Polk, and Yamhill	Department of Environmental Quality Western Region 750 Front Street NE, Suite 120 Salem, OR 97301-1039 Telephone: (503) 378-5305

Baker, Crook, Deschutes, Gilliam, Grant, Harney, Hood River, Jefferson, Klamath, Lake, Malheur, Morrow, Sherman, Umatilla, Union, Wallowa, Wasco, Wheeler	Department of Environmental Quality Eastern Region 300 SE Reed Market Road Bend, OR 97702-2237 Telephone: (541) 388-6146 ext. 223

9.3. Department Contacts

Information about air quality permits and the Department's regulations may be obtained from the DEQ web page at http://www.oregon.gov/DEQ/. All inquiries about this permit should be directed to the regional office for the area where the source is located. The Department's regional offices are as follows:

Counties	**Office Address and Telephone**
Clackamas, Clatsop, Columbia, Multnomah, Tillamook, and Washington	Department of Environmental Quality Portland Office 2020 SW 4th Avenue, Suite 400 Portland, OR 97201-4987 Telephone: (503) 229-5554
Benton, Lincoln, Linn, Marion, Polk, and Yamhill	Department of Environmental Quality Salem Office 750 Front Street NE, Suite 120 Salem, OR 97301-1039 Telephone: (503) 378-8240
Coos and Curry	Department of Environmental Quality Coos Bay Office 381 N Second Street Coos Bay, OR 97420-2270 Telephone: (541) 269-2721
Douglas, Jackson, and Josephine	Department of Environmental Quality Medford Office 221 W Stewart Avenue, Suite 201 Medford, OR 97501-3647 Telephone: (541) 776-6010
Crook, Deschutes, Harney, Hood River, Jefferson, Klamath, Lake, Sherman, Wasco, and Wheeler	Department of Environmental Quality Bend Office 300 SE Reed Market Road Bend, OR 97702-2237 Telephone: (541) 388-6146

Counties	Office Address and Telephone
Baker, Gilliam, Grant, Malheur, Morrow, Umatilla, Union, and Wallowa	Department of Environmental Quality Pendleton Office 700 SE Emigrant Avenue, Suite 330 Pendleton, OR 97801-2597 Telephone: (541) 276-4063

10.0 FEES

10.1. Annual Compliance Fee The Annual Fee specified in OAR 340-216-0020, Table 2, Part 2 for a Fee Class Four General ACDP is due on December 1 of each year this permit is in effect. An invoice indicating the amount, as determined by Department regulations, will be mailed prior to the above date.

10.2. Change of Ownership or Company Name Fee The non-technical permit modification fee specified in OAR 340-216-0020, Table 2, Part 3(a) is due with an application for changing the ownership or the name of the company.

10.3. Special Activity Fees The special activity fees specified in OAR 340-216-0020, Table 2, Part 3 (b through i) are due with an application to modify the permit.

10.4. Where to Submit Fees Fees must be submitted to:

Department of Environmental Quality
Business Office
811 SW Sixth Avenue
Portland, Oregon 97204-1390

11.0 GENERAL CONDITIONS AND DISCLAIMERS

11.1. Other Regulations In addition to the specific requirements listed in this permit, the permittee must comply with all other legal requirements enforceable by the Department.

11.2. Conflicting Conditions In any instance in which there is an apparent conflict relative to conditions in this permit, the most stringent conditions apply.

11.3. Masking of Emissions The permittee must not cause or permit the installation of any device or use any means designed to mask the emissions of an air contaminant that causes or is likely to cause detriment to health, safety, or welfare of any person or otherwise violate any other regulation or requirement.

11.4. Department The permittee must allow the Department's representatives access

	Access	to the plant site and pertinent records at all reasonable times for the purposes of performing inspections, surveys, collecting samples, obtaining data, reviewing and copying air contaminant emissions discharge records and conducting all necessary functions related to this permit in accordance with ORS 468-095.
11.5.	**Permit Availability**	The permittee must have a copy of the permit available at the facility at all times.
11.6.	**Open Burning**	The permittee may not conduct any open burning except as allowed by OAR 340 Division 264.
11.7.	**Asbestos**	The permittee must comply with the asbestos abatement requirements in OAR 340, Division 248 for all activities involving asbestos-containing materials, including, but not limit to, demolition, renovation, repair, construction, and maintenance.
11.8.	**Property Rights**	The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations.
11.9.	**Termination, Revocation, or Modification**	The Department may modify or revoke this permit pursuant to OAR 340-216-0082 and 340-216-0084.

12.0 EMISSION FACTORS

This section contains emission factors for both criteria pollutants and hazardous air pollutants (HAPs). Because many HAP emission factors remain under development, the emission factors provided in Condition 12 represent the best available data at the time of permit renewal. The use of HAP emission factors in Condition 12 do not guarantee that facilities will be in compliance with federal requirements for major sources of HAPs. Facilities should use the most reliable emission factors as they become available in the future, or provide emission source test results that demonstrate actual emissions for their specific emission unit.

12.1. Emission Factors (EF) for fuel usage

a. PM, PM10, SO2, NOX, CO and VOC

Fuel type	**EF units**	**PM**	**PM_{10}**	**SO_2**	**NO_X**	**CO**	**VOC**
Natural Gas	lb/million cubic feet	2.5	2.5	1.7	100	84	5.5
Propane	lb/1000 gallons	0.6	0.6	0.10S[(1)]	19	3.2	0.5

Fuel type	EF units	PM	PM_{10}	SO_2	NO_X	CO	VOC
Butane	lb/1000 gallons	0.6	0.6	0.09S(1)	21	3.6	0.6
#1 distillate oil	lb/1000 gallons	3.3	1.7(2)	142S(1)	18	5	0.2(3)
#2 distillate oil	lb/1000 gallons	3.3	1.7(2)	142S(1)	20	5	0.2(3)
#4 residual oil	lb/1000 gallons	8.5	7.3(4)	150S(1)	20	5	0.2(3)
#5 & #6 residual oil	lb/1000 gallons	11.5	9.9(4)	157S(1)	55	5	0.28(3)
Wood	lb/1000 lb of steam	0.4(5)	0.2(5)	0.014	0.31	3.0	0.13
	lb/1000 lb of steam	0.4(5)	0.2(5)	0.014	0.31	2.0	0.13
	lb/1000 lb of steam	0.4(5)	0.2(5)	0.014	0.31	1.0	0.13

(1) The sulfur dioxide emission factor is based on the sulfur content of the fuel expressed as a percent by weight. For example, if the sulfur content of #1 distillate oil is 0.3%, the emission factor is 142 x 0.3 = 42.6 lb/1000 gallons of oil burned.
(2) PM_{10} is 50% of total PM. Total PM is the sum of filterable PM and condensible PM. [AP-42 tables 1.3-1, 1.3-2, and 1.3-6]
(3) VOC reported as non-methane total organic carbon (NMTOC).
(4) PM_{10} is 86% of total PM. Total PM is the sum of filterable PM and condensible PM. [AP-42 tables 1.3-1, 1.3-2, and 1.3-5]
(5) Emission factors for units with PM control devices can be determined using the procedures in Condition 12.2.

b. HAPS

Pollutant	Emission Factor lb/MMlbSteam(1)	Reference
Acrolein (single HAP)	4.40	AP-42; 9/03
Acetaldehyde (single HAP)	0.91	AP-42; 9/03
Methanol (single HAP)	0.91	NCASI TB 858; 2/03
Combined HAP	14.38	

(1) Assumes 1100 Btu per pound of steam

12.2. Wood fired units PM control efficiencies and PM_{10} fractions:

Use the following information to make adjustments to the PM emission factors given in Condition 12.1 for wood-fired units. For example, the PM and PM_{10} emission factors for a Dutch Oven boiler with a high pressure multiclone would be:

EF_{PM} = 0.40 x (1- 70%/100) = 0.12 lb/1000 lb of steam
EF_{PM10} = 0.12 x 95%/100 = 0.11 lb/1000 lb of steam

Control Device	Estimated Efficiency (%)	PM_{10} Fraction (%)
Uncontrolled	NA	50
Multiclone (low pressure)	50	50
Multiclone (high pressure)	70	95
Wet scrubber (low pressure)	70	80
Wet scrubber (medium to high pressure)	80	95
Electrostatic precipitator (wet or dry)	95	100

12.3. Emission Factors for Cyclones and Target Boxes

Process Equipment	Type	Description	Units	PM (lb/BDT)	PM_{10} (lb/BDT)
Cyclone	Medium Efficiency	Dry & green chips, shavings, hogged fuel/bark, green sawdust	Bone Dry Tons (BDT)	0.5	0.25
	High Efficiency			0.2	0.16
	Baghouse Control			0.001	0.001
	Medium Efficiency	Sander dust	Bone Dry Tons (BDT)	NA	NA
	High Efficiency			2.0	1.6
	Baghouse Control			0.04	0.04
Target Box	Medium Efficiency	Sander dust	Bone Dry Tons (BDT)	0.1	0.05

12.4. Emission Factors for Steam and Electric Heated Kilns (lb/1000 board feet)[1]

Wood species	PM/PM_{10}	VOC[(2)]	Methanol (Single HAP)	Acetaldehyde (Single HAP)	Combined HAP
Ponderosa Pine	0.02[(3)]	1.7[(4)]	0.07[(4)]	0.113[(9)]	0.186
Lodgepole Pine	0.02[(3)]	1.3[(4)]	0.06[(4)]	0.113[(9)]	0.177

Douglas Fir	0.02(5)	0.6(6)	0.02(4)	0.057	0.078
White Fir	0.05(7)	0.33(4)	0.12(4)	0.113(9)	0.236
Hemlock	0.05(5)	0.39(8)	0.128(8)	0.113(10)	0.244

(1) Use source specific data, if available
(2) VOC emissions factors are based on propane, using the carbon based results from the cited studies and multiplying by 44/36.
(3) No data, use Douglas Fir
(4) Oregon State University (OSU) kiln study, 2000 (NCASI)
(5) OSU kiln study, 1998 (WI)
(6) University of Idaho kiln study, 1996 (NCASI), average of heart and sap results
(7) No data, use Hemlock
(8) Emissions from Western Hemlock lumber during drying, Milota & Mosher (2006)
(9) No data, use Hemlock
(10) Average of Rosboro and Hampton tests at OSU

12.5. Emission Factors for Surface Coating Operations

Consult manufacturer or Material Safety Data Sheet for required information needed to calculate emissions.

12.6. Emission Factor for Wood Preserving

Emissions device or activity	Pollutant	Emission Factor (EF)	Emission factor units
Treatment cycle without conditioning, uncontrolled	VOC	0.74	lb/1000ft^3 of wood treated
	Naphthalene (Single HAP)	0.0046	lb/1000ft^3 of wood treated
	Combined HAPs	0.0097	lb/1000ft^3 of wood treated
Treatment cycle with conditioning by Boulton process, uncontrolled	VOC	5.80	lb/1000ft^3 of wood treated
	Naphthalene (Single HAP)	0.079	lb/1000ft^3 of wood treated
	Combined HAPs	0.16	lb/1000ft^3 of wood treated

13.0 ABBREVIATIONS, ACRONYMS, AND DEFINITIONS

ACDP	Air Contaminant Discharge Permit
ASTM	American Society for Testing and Materials
AQMA	Air Quality Maintenance Area
calendar year	The 12-month period beginning January 1st and ending December 31st
CFR	Code of Federal Regulations
CO	carbon monoxide

DEQ	Oregon Department of Environmental Quality
dscf	dry standard cubic foot
EPA	US Environmental Protection Agency
FCAA	Federal Clean Air Act
gal	gallon(s)
gr/dscf	grains per dry standard cubic foot
HAP	Hazardous Air Pollutant as defined by OAR 340-244-0040
I&M	inspection and maintenance
lb	pound(s)
Metal HAP	chromium, manganese, lead, nickel
MMBtu	million British thermal units
NA	not applicable
NESHAP	National Emissions Standards for Hazardous Air Pollutants
NO_X	nitrogen oxides
NSPS	New Source Performance Standard
NSR	New Source Review
O_2	oxygen
OAR	Oregon Administrative Rules
ORS	Oregon Revised Statutes
O&M	operation and maintenance
Pb	lead
PCD	pollution control device
PM	particulate matter
PM_{10}	particulate matter less than 10 microns in size
ppm	part per million
PSD	Prevention of Significant Deterioration
PSEL	Plant Site Emission Limit
PTE	Potential to Emit
RACT	Reasonably Available Control Technology
scf	standard cubic foot
SER	Significant Emission Rate
SIC	Standard Industrial Code
SIP	State Implementation Plan
SO_2	sulfur dioxide
Special Control Area	as defined in OAR 340-204-0070
VE	visible emissions
VOC	volatile organic compound
year	A period consisting of any 12-consecutive calendar months

Oregon Department of Environmental Quality

Proposal to adopt Federal Air Quality Regulations, including Stage I Vapor Recovery Requirements

Fiscal Rulemaking Advisory Committee Meeting Notes and Committee Recommendations

July 7, 2008

1. Overview and purpose

The Oregon Department of Environmental Quality (DEQ) established an advisory committee to review the fiscal and economic impacts of DEQ's proposed rulemaking to adopt numerous federal air quality regulations, including Stage I Vapor Recovery requirements. DEQ requested that each of the committee members provide comments and recommendations on the DEQ's draft Statement of Need and Fiscal and Economic Impact and answer questions derived from Administrative Procedures Act requirements for fiscal impact analysis (OAR 183.333).

2. Committee members

Bob Moore, Harris Transportation
Sara Leverette, Oregon Environmental Council
Paul Romain, Oregon Petroleum Association
Michaeleen Mason, Western States Petroleum Association
Brian Dougherty, Western States Petroleum Association
Merlyn Hough, Lane Regional Air Protection Agency
Sandra Lopez, Lane Regional Air Protection Agency
Dona Hippert, Oregon Toxics Alliance and Northwest Environmental Defense Center
David Monk, Oregon Toxics Alliance
Jason Powell, Powell Distributing
John Phimister, Western States Petroleum Company

Others in attendance included DEQ staff Uri Papish, Jerry Ebersole, Cory Wind, Johnny Baumgartner, and Sarah Armitage.

3. Proposed rule background

The Oregon Department of Environmental Quality (DEQ) is proposing that the Environmental Quality Commission (EQC) adopt standards that implement and in some cases go beyond new and amended federal air quality regulations. The objective of this rulemaking is to ensure that the emissions reductions required under the new and amended federal air quality regulations are made in Oregon, and to go beyond the federal regulations where further reductions are needed to protect Oregonians. The expected result of this rule is the maintenance of Oregon's delegation of the federal standards, the use of low mercury coal and/or mercury controls and the reduction of benzene emissions in Oregon.

For gasoline distribution facilities, the proposed rule would:

- Adopt NESHAP requirements for gasoline dispensing facilities and add additional provisions for the state of Oregon. Require facilities with stage I vapor control capable tanks to use

those vapor controls and tanks at moderate and high volume facilities have stage I vapor controls. Prohibit the topping off of motor vehicle fuel tanks.
- Merge separate rules covering gasoline dispensing facilities (submerged fill and stage I vapor control requirements) into one set of rules.
- Defer the requirement that gasoline dispensing facilities get an air quality permit until January 2010.

4. Discussion summary

This meeting took place July 7, 2008, from 9 to 11:15 am at DEQ Headquarters. The committee was provided DEQ's draft Statement of Need and Fiscal and Economic Impact statement for the proposed rules, Excerpts of the Administrative Procedures Act Fiscal Requirements, Draft Public Notice and related background materials. These materials are available upon request.

DEQ staff explained the status of the proposed rules, the need for the Fiscal Advisory Committee and gave an overview of the proposed rules and draft Statement of Need and Fiscal and Economic Impact.

In reviewing the draft fiscal statement, the committee questioned whether the financial benefit of saving fuel through Stage I Vapor Recovery equipment could be returned to the facilities paying for equipment and permits. The fuel savings accrues to the terminals or bulk plant and is not in reality expected to be passed on in the form of cost reduction to gas distribution facilities. DEQ plans to revise language in the fiscal statement to indicate that fuel conserved through Stage I equipment is not likely to directly benefit gas distribution facilities.

Related to the discussion about benefits of saving fuel was the suggestion that DEQ consider charging a fee to terminals or bulk plants and using it to help offset gas distribution facility compliance and/or equipment costs.

The committee also pointed out that in the draft rules, the estimated $525/year for testing and reporting would apply only to larger facilities of 100,000 gallons per month throughput.

Several committee members requested a breakdown of past, current and proposed fees for facilities required to operate both Stage I and Stage II vapor control equipment. The committee asked DEQ to justify the need to increase facilities' fees. DEQ staff will provide more information.

The committee discussed several technical issues as they relate to cost. There was a concern about the availability of the less expensive single point vapor recovery equipment in the future. All of the facilities above 100,000 gallons per month are required to use dual point vapor recovery, but those below that threshold would have the option of either method. Committee members also questioned the relationship between pressure testing and fuel savings. If a system degrades, more fuel will be lost.

The committee noted that DEQ should understand that there will be a broad range of costs to retrofit with Stage I. Some installations on older, loose equipment could crack surrounding concrete and require digging and additional costly work. DEQ should also include overfill protection in its estimates. DEQ staff noted that the fiscal statement contains worst case assumptions that all facilities outside of Medford, Portland and Salem must install Stage I equipment, and is therefore conservative enough to accommodate a range of retrofit costs. Initial surveys of these facilities indicate that 60 percent to 70 percent already have Stage I equipment in place.

Fourth, members requested that DEQ develop more information on the cost of retrofitting aboveground tanks with Stage I equipment. DEQ staff thought costs were similar or lower, and plan to further research this question. It is not likely that many facilities with aboveground tanks would have throughput at a level that would require installation of Stage I; however, there may be several in Lane County.

Several committee members pointed out that the fiscal statement would be more complete if DEQ included an estimate of health cost savings from decreased benzene exposures. Decreased benzene would benefit service station workers and the public. While this is likely difficult to quantify, DEQ plans to review EPA's health risk information for the Gasoline Distribution NESHAP. Other members cautioned that DEQ check that any EPA exposure assumptions are accurate for Oregon.

The committee discussed whether or not the rule will have a significant adverse impact on small businesses and made suggestions for mitigation. Results of this discussion are found in committee recommendations, below.

5. Committee recommendations
The Fiscal Advisory Committee was tasked with answering three main questions derived from ORS 183.333. The questions as well as the committee's answers are summarized below:

a. What is the extent of the fiscal impact of the proposed rules?
The committee generally agreed that the extent of the impact is outlined adequately in the DEQ Statement of Need and Fiscal and Economic Impact, although one member wanted to do additional research. To further improve the accuracy of the fiscal statement, the committee recommends adding the following information:

1. A statement describing the unlikelihood that savings will benefit gas distribution facilities.
2. A revision removing the cost of testing for facilities below 100,000 gallons per month throughput.
3. A statement about the positive economic benefits which may come from improvements in public health resulting from a reduction of exposure to benzene.

b. Will the rule have a significant adverse impact on small businesses?
Several members of the fiscal advisory committee concluded that the proposed vapor recovery rule would have a significant adverse effect on small business. Because many gas distribution facilities are marginally profitable and subject to multiple government fees and regulatory programs, even small cost increases could cause significant adverse impacts. Current high gas

prices have caused credit difficulties for many businesses in the gas distribution chain. Like tank regulations, the Stage I proposal could affect rural facilities the most. The committee was not able to quantify the extent of significant adverse impacts.

c. If there is a significant adverse impact on small business, do you have any recommendations to reduce the impact?

The committee provided various suggestions to mitigate fiscal impacts on small businesses. These suggestions included:

- Increase the draft rule's regulatory Stage I threshold to a level above 10,000 gallons per month.
- Adopt only the federal Gasoline Dispensing NESHAP
- Establish an emergency, hardship or small business exemption for facilities that would be forced out of business or heavily burdened by the regulations. Criteria could also include number of employees, throughput, revenue, location, population density and nature of the business.
- Provide financial assistance to facilities with significant fiscal impacts.
- Research whether the Business Energy Tax Credit could apply.
- Shift costs to terminals and bulk plants by altering DEQ's fee structure to recoup benefit from fuel savings.

6. Committee Conclusion

The committee reviewed DEQ's draft Statement of Need and Fiscal and Economic Impact and provided comments and recommendations. DEQ modified the fiscal impact statement as recommended by the committee and will revise the rule to incorporate selected mitigation measures for small business while still considering the public health and safety purpose of the rule.

The following document is for informational purposes only and shows changes made to the proposed rules since the close of the public comment period. Rule language un-modified subsequent to the close of the public comment period is omitted. These changes are one portion of the overall changes reflected in Attachments A-1 through A-5. The official versions of the rules proposed for adoption are contained in Attachments A-1 through A-5.

DEPARTMENT OF ENVIRONMENTAL QUALITY

DIVISION 216

AIR CONTAMINANT DISCHARGE PERMITS

340-216-0060
General Air Contaminant Discharge Permits
(1) Applicability.
(a) The Commission may issue a General ACDP under the following circumstances:
(A) There are several sources that involve the same or substantially similar types of operations;
(B) All requirements applicable to the sources can be contained in a General ACDP;
(C) The emission limitations, monitoring, recordkeeping, reporting and other enforceable conditions are the same for all sources covered by the General ACDP; and
(D) The pollutants emitted are of the same type for all covered sources.
(b) Permit content. Each General ACDP must include the following:
(A) All relevant requirements;
(B) Generic PSELs for all pollutants emitted at more than the deminimis level in accordance with OAR 340, division 222;
(C) Testing, monitoring, recordkeeping, and reporting requirements necessary to ensure compliance with the PSEL and other applicable emissions limits and standards; and
(D) A permit duration not to exceed 10 years.
(c) Permit issuance procedures: A General ACDP requires public notice and opportunity for comment in accordance with ORS 183.325 to 183.410. All General ACDPs are on file and available for review at the Department's headquarters.
(2) Source assignment:
(a) Application requirements. Any person requesting that a source be assigned to a General ACDP must submit a written application in accordance with OAR 340-216-0040 that includes the information in OAR 340-216-0040(1), specifies the General ACDP source category, and shows that the source qualifies for the General ACDP.
(b) Fees. Applicants must pay the fees set forth in Table 2 of OAR 340-216-0020.
(c) Source assignment procedures:
(A) Assignment of a source to a General ACDP is a Category I permit action and is subject to the Category I public notice requirements in accordance with OAR 340, division 209.
(B) A person is not a permittee under the General ACDP until the Department assigns the General ACDP to the person.
(C) Assignments to General ACDPs terminate when the General ACDP expires or is modified, terminated or revoked.

(3) Commission Initiated Modification. If the Commission determines that the conditions have changed such that a General ACDP for a category needs to be modified, the Commission may issue a new General ACDP for that category and the Department may assign all existing General ACDP permit holders to the new General ACDP.
(4) Rescission. In addition to OAR 340-216-0082 (Termination or Revocation of an ACDP), the Department may rescind an individual source's assignment to a General ACDP if the source no longer meets the requirements of this rule or the conditions of the permit, including, but not limited to the source having an ongoing, reoccurring or serious compliance problem. Upon rescinding a source's assignment to a General ACDP the Department will place the source on a Simple or Standard ACDP. The Commission may also revoke a General ACDP if conditions, standards or rules have changed so the permit no longer meets the requirements of this rule.
(5) General ACDPs adopted by reference. The following General ACDPs are adopted by this reference and incorporated herein:
(a) AQGP-001, Hard chrome platers (February 3, 2006)[3];
(b) AQGP-002, Decorative chrome platers (February 3, 2006)[2];
(c) AQGP-003, Halogenated solvent degreasers -- batch cold (December 12, 2008)[2];
(d) AQGP-004, Halogenated solvent degreasers -- batch vapor and in-line (December 12, 2008)[2];
(e) AQGP-005, Halogenated solvent degreasers -- batch cold, batch vapor, and in-line (December 12, 2008)[2];
(f) AQGP-006, Dry cleaners (August 10, 2001)[1];
(g) AQGP-007, Asphalt plants (October 17, 2007)[3];
(h) AQGP-008, Rock crushers (October 17, 2007)[2];
(i) AQGP-009, Ready-mix concrete (October 17, 2007)[1];
(j) AQGP-010, Sawmills, planing mills, millwork, plywood manufacturing and veneer drying (October 17, 2007)[3];
(k) AQGP-011, Boilers (October 17, 2007)[2];
(l) AQGP-012, Crematories (October 17, 2007)[2];
(m) AQGP-013, Grain elevators (August 10, 2001)[1];
(n) AQGP-014, Prepared feeds, flour, and cereal (August 10, 2001)[1];
(o) AQGP-015, Seed cleaning (August 10, 2001)[1];
(p) AQGP-016, Coffee roasters (August 10, 2001)[1];
(q) AQGP-017, Bulk gasoline plants (December 12, 2008~~August 10, 2001~~)[1];
(r) AQGP-018, Electric power generators (August 10, 2001)[2];
(s) AQGP-019, Clay ceramics (December 12, 2008)[1];
(t) AQGP-020, Hospital sterilization (December 12, 2008)[4];
(u) AQGP-021, Secondary nonferrous metals (December 12, 2008)[1];
(v) AQGP-022, Gasoline dispensing facilities – stage I (December 12, 2008)[5];
(w) AQGP-023, Gasoline dispensing facilities – stage II (December 12, 2008)[4];
(z) AQGP-024, Wood preserving – (December 12, 2008)[4].
NOTES: [1] The referenced General ACDPs specify that they are Fee Class One under OAR 340-216-0020, Table 2. [2] The referenced General ACDPs specify that they are Fee Class Two under OAR 340-216-0020, Table 2. [3] The referenced General ACDPs specify that they are Fee Class Three under OAR 340-216-0020, Table 2. [4] The referenced General ACDPs specify that they are Fee Class Four under

OAR 340-216-0020, Table 2. [5] The referenced General ACDPs specify that they are Fee Class Five under OAR 340-216-0020, Table 2.
NOTE: Except for OAR 340-216-0060(5), this rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the EQC under OAR 340-200-0040.
[ED. NOTE: Tables referenced in this rule are available from the agency.]
Stat. Auth.: ORS 468 & 468A
Stats. Implemented: ORS 468.020 & 468A.025
Hist.: DEQ 14-1998, f. & cert. ef. 9-14-98; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-028-1725; DEQ 6-2001, f. 6-18-01, cert. ef. 7-1-01; DEQ 10-2001, f. & cert. ef. 8-30-01; DEQ 4-2002, f. & cert. ef. 3-14-02; DEQ 2-2006, f. & cert. ef. 3-14-06; DEQ 8-2007, f. & cert. ef. 11-8-07

DIVISION 228

Mercury Rules for Coal-Fired Power Plants

Utility Mercury Rule

General Provisions

340-228-0602
Definitions
(1) "Acid rain emissions limitation" means a limitation on emissions of sulfur dioxide or nitrogen oxides under the Acid Rain Program.
(2) "Acid Rain Program" means a multi-state sulfur dioxide and nitrogen oxides air pollution control and emission reduction program established by the Administrator under title IV of the CAA and 40 CFR parts 72 through 78.
(3) "Automated data acquisition and handling system or DAHS" means that component of the continuous emission monitoring system (CEMS), or other emissions monitoring system approved for use under OAR 340-228-0609~~58~~ though 0637~~70~~, designed to interpret and convert individual output signals from pollutant concentration monitors, flow monitors, diluent gas monitors, and other component parts of the monitoring system to produce a continuous record of the measured parameters in the measurement units required OAR 340-228-0609~~58~~ through 0637~~70~~.
(4) "Biomass" means:
(a) Any organic material grown for the purpose of being converted to energy;
(b) Any organic byproduct of agriculture that can be converted into energy; or
(c) Any material that can be converted into energy and is nonmerchantable for other purposes, that is segregated from other nonmerchantable material, and that is;
(A) A forest-related organic resource, including mill residues, precommercial thinnings, slash, brush, or byproduct from conversion of trees to merchantable material; or
(B) A wood material, including pallets, crates, dunnage, manufacturing and construction materials (other than pressure-treated, chemically-treated, or painted wood products), and landscape or right-of-way tree trimmings.
(5) "Boiler" means an enclosed fossil-or other fuel-fired combustion device used to produce heat and to transfer heat to recirculating water, steam, or other medium.

(6) "Bottoming-cycle cogeneration unit" means a cogeneration unit in which the energy input to the unit is first used to produce useful thermal energy and at least some of the reject heat from the useful thermal energy application or process is then used for electricity production.
(7) "Coal" means any solid fuel classified as anthracite, bituminous, subbituminous, or lignite by the American Society of Testing and Materials (ASTM) Standard Specification for Classification of Coals by Rank D388-77, 90, 91, 95, 98a, or 99 (Reapproved 2004) & epsiv; (incorporated by reference, see 40 CFR 60.17).
(8) "Coal-derived fuel" means any fuel (whether in a solid, liquid, or gaseous state) produced by the mechanical, thermal, or chemical processing of coal.
(9) "Coal-fired" means combusting any amount of coal or coal-derived fuel, alone or in combination with any amount of any other fuel, during any year.
(10) "Cogeneration unit" means a stationary, coal-fired boiler or stationary, coal-fired combustion turbine:
(a) Having equipment used to produce electricity and useful thermal energy for industrial, commercial, heating, or cooling purposes through the sequential use of energy; and
(b) Producing during the 12-month period starting on the date the unit first produces electricity and during any calendar year after which the unit first produces electricity:
(A) For a topping-cycle cogeneration unit,
(i) Useful thermal energy not less than 5 percent of total energy output; and
(ii) Useful power that, when added to one-half of useful thermal energy produced, is not less then 42.5 percent of total energy input, if useful thermal energy produced is 15 percent or more of total energy output, or not less than 45 percent of total energy input, if useful thermal energy produced is less than 15 percent of total energy output.
(B) For a bottoming-cycle cogeneration unit, useful power not less than 45 percent of total energy input.
(c) Provided that the total energy input under paragraphs (b)(A)(ii) and (b)(B) of this definition equals the unit's total energy input from all fuel except biomass if the unit is a boiler.
(11) "Combustion turbine" means:
(a) An enclosed device comprising a compressor, a combustor, and a turbine and in which the flue gas resulting from the combustion of fuel in the combustor passes through the turbine, rotating the turbine; and
(b) If the enclosed device under paragraph (a) of this definition is combined cycle, any associated heat recovery steam generator and steam turbine.
(12) "Commence commercial operation" means, with regard to a unit serving a generator:
(a) To have begun to produce steam, gas, or other heated medium used to generate electricity for sale or use, including test generation.
(A) For a unit that is a coal-fired electric generating unit under OAR 340-228-0601 on the date the unit commences commercial operation as defined in paragraph (a) of this definition and that subsequently undergoes a physical change (other than replacement of the unit by a unit at the same source), such date shall remain the unit's date of commencement of commercial operation.
(B) For a unit that is a coal-fired electric generating unit under OAR 340-228-0601 on the date the unit commences commercial operation as defined in paragraph (a) of this definition and that is subsequently replaced by a unit at the same source (e.g., repowered), the replacement unit shall be treated as a separate unit with a separate date for commencement of commercial operation as defined in paragraph (a) or (b) of this definition as appropriate.

(b) Notwithstanding paragraph (a) of this definition, for a unit that is not a coal-fired electric generating unit under OAR 340-228-0601 on the date the unit commences commercial operation as defined in paragraph (a) of this definition, the unit's date for commencement of commercial operation shall be the date on which the unit becomes a coal-fired electric generating unit under OAR 340-228-0601.
(A) For a unit with a date for commencement of commercial operation as defined in paragraph (b) of this definition and that subsequently undergoes a physical change (other than replacement of the unit by a unit at the same source), such date remains the unit's date of commencement of commercial operation.
(B) For a unit with a date for commencement of commercial operation as defined in paragraph (b) of this definition and that is subsequently replaced by a unit at the same source (e.g., repowered), the replacement unit shall be treated as a separate unit with a separate date for commencement of commercial operation as defined in paragraph (a) or (b) of this definition as appropriate.
(13) "Commence operation" means:
(a) To have begun any mechanical, chemical, or electronic process, including, with regard to a unit, start-up of a unit's combustion chamber.
(A) For a unit that is a coal-fired electric generating unit under OAR 340-228-0601 on the date the unit commences operation as defined in paragraph (a) of this definition and that subsequently undergoes a physical change (other than replacement of the unit by a unit at the same source), such date shall remain the unit's date of commencement of operation.
(B) For a unit that is a coal-fired electric generating unit under OAR 340-228-0601 on the date the unit commences operation as defined in paragraph (a) of this definition and that is subsequently replaced by a unit at the same source (e.g., repowered), the replacement unit shall be treated as a separate unit with a separate date for commencement of operation as defined in paragraph (a) or (b) of this definition as appropriate.
(b) Notwithstanding paragraph (a) of this definition, for a unit that is not a coal-fired electric generating unit under OAR 340-228-0601 on the date the unit commences operation as defined in paragraph (a) of this definition, the unit's date for commencement of operation shall be the date on which the unit becomes a coal-fired electric generating unit under OAR 340-228-0601.
(A) For a unit with a date for commencement of operation as defined in paragraph (b) of this definition and that subsequently undergoes a physical change (other than replacement of the unit by a unit at the same source), such date shall remain the unit's date of commencement of operation.
(B) For a unit with a date for commencement of operation as defined in paragraph (b) of this definition and that is subsequently replaced by a unit at the same source (e.g., repowered), the replacement unit shall be treated as a separate unit with a separate date for commencement of operation as defined in paragraph (a) or (b) of this definition as appropriate.
(14) "Common stack" means a single flue through which emissions from 2 or more units are exhausted.
(15) "Continuous emission monitoring system" or "CEMS" means the equipment required under OAR 340-228-0609~~58~~ through 0637~~70~~ to sample, analyze, measure, and provide, by means of readings recorded at least once every 15 minutes (using an automated data acquisition and handling system (DAHS)), a permanent record of Hg emissions, stack gas volumetric flow rate, stack gas moisture content, and oxygen or carbon dioxide concentration (as applicable), in a manner consistent with **40 CFR part 75 and OAR 340-228-0609 through 0637**. The following systems are the principal types of CEMS required under OAR 340-228-0609~~58~~ through 0637~~70~~:

(a) A flow monitoring system, consisting of a stack flow rate monitor and an automated data acquisition and handling system and providing a permanent, continuous record of stack gas volumetric flow rate, in units of standard cubic feet per hour (scfh);
(b) A Hg concentration monitoring system, consisting of a Hg pollutant concentration monitor and an automated data acquisition and handling system and providing a permanent, continuous record of Hg emissions in units of micrograms per dry standard cubic meter (µg/dscm);
(c) A moisture monitoring system, as defined in **40 CFR 75.11(b)(2)** and providing a permanent, continuous record of the stack gas moisture content, in percent H2O.
(d) A carbon dioxide monitoring system, consisting of a CO_2 concentration monitor (or an oxygen monitor plus suitable mathematical equations from which the CO_2 concentration is derived) and an automated data acquisition and handling system and providing a permanent, continuous record of CO_2 emissions, in percent CO_2; and
(e) An oxygen monitoring system, consisting of an O_2 concentration monitor and an automated data acquisition and handling system and providing a permanent, continuous record of O_2, in percent O_2.
(16) "Emissions" means air pollutants exhausted from a unit or source into the atmosphere, as measured, recorded, and reported to the Department by the owner or operator and as determined by the Department in accordance with OAR 340-228-06009~~58~~ through 06337~~70~~.
(17) "Generator" means a device that produces electricity.
(18) "Heat input" means, with regard to a specified period of time, the product (in MMBtu/time) of the gross calorific value of the fuel (in Btu/lb) divided by 1,000,000 Btu/MMBtu and multiplied by the fuel feed rate into a combustion device (in lb of fuel/time), as measured, recorded, and reported to the Department by the owner or operator and determined by the Department in accordance with OAR 340-228-06009~~58~~ through 06337~~70~~ and excluding the heat derived from preheated combustion air, recirculated flue gases, or exhaust from other sources.
(19) "Heat input rate" means the amount of heat input (in MMBtu) divided by unit operating time (in hr) or, with regard to a specific fuel, the amount of heat input attributed to the fuel (in MMBtu) divided by the unit operating time (in hr) during which the unit combusts the fuel.
(20) “Hg CEMS” means a Hg pollutant concentration monitor and an automated DAHS. A Hg CEMS provides a permanent, continuous record of Hg emissions in units of micrograms per standard cubic meter (µg/m3).
(21) "Life-of-the-unit, firm power contractual arrangement" means a unit participation power sales agreement under which a utility or industrial customer reserves, or is entitled to receive, a specified amount or percentage of nameplate capacity and associated energy generated by any specified unit and pays its proportional amount of such unit's total costs, pursuant to a contract:
(a) For the life of the unit;
(b) For a cumulative term of no less than 30 years, including contracts that permit an election for early termination; or
(c) For a period no less than 25 years or 70 percent of the economic useful life of the unit determined as of the time the unit is built, with option rights to purchase or release some portion of the nameplate capacity and associated energy generated by the unit at the end of the period.
(22) "Lignite" means coal that is classified as lignite A or B according to the American Society of Testing and Materials (ASTM) Standard Specification for Classification of Coals by Rank D338-77, 90, 91, 95, 98a, or 99 (Reapproved 2004) & epsiv; (incorporated by reference, see 40 CFR 60.17).

(23) "Maximum design heat input" means, starting from the initial installation of a unit, the maximum amount of fuel per hour (in Btu/hr) that a unit is capable of combusting on a steady-state basis as specified by the manufacturer of the unit, or, starting from the completion of any subsequent physical change in the unit resulting in a decrease in the maximum amount of fuel per hour (in Btu/hr) that a unit is capable of combusting on a steady-state basis, such decreased maximum amount as specified by the person conducting the physical change.
(24) "Maximum expected Hg concentration (MEC)" means, ~~for units with FGD systems that significantly reduce Hg emissions (including fluidized bed units that use limestone injection) and for units equipped with add on Hg emission controls (*e.g.*, carbon injection),~~ the maximum expected Hg concentration (MEC) during normal, stable operation of the unit and emission controls. To calculate the MEC, substitute the MPC value from section (25) of this rule into Equation A–2 in section 2.1.1.2 of **appendix A to 40 CFR part 75**. ~~For units with add-on Hg emission controls, b~~Base the percent removal efficiency on design engineering calculations. ~~For units with FGD systems, use the best available estimate of the Hg removal efficiency of the FGD system.~~
(25) "Maximum potential Hg concentration (MPC)" means the following:
(a) The maximum potential concentration depends upon the type of coal combusted. For the initial MPC determination, the MPC is one of the following:
(A) The MPC is one of the following default values: 9 µg/m3 for bituminous coal; 10 µg/m3 for sub-bituminous coal; 16 µg/m3 for lignite, and 1 µg/m3 for waste coal. If different coals are blended, the MPC is the highest MPC for any fuel in the blend; or
(B) The MPC may be based on the results of site-specific emission testing using one of the Hg reference methods in section (33)~~2~~ of this rule or in **40 CFR 75.22**, if the unit does not have add-on Hg emission controls~~ or a flue gas desulfurization system~~, or if testing upstream of these control devices. A minimum of 3 test runs are required, at the normal operating load. The highest total Hg concentration obtained in any of the tests may be used as the MPC; or
(C) The MPC is based on the maximum potential Hg concentration on 720 or more hours of historical CEMS data or data from a sorbent trap monitoring system, if the unit does not have add-on Hg emission controls~~ or a flue gas desulfurization system~~ (or if the CEMS or sorbent trap system is located upstream of the~~se~~ control device~~s~~) and if the Hg CEMS or sorbent trap system has been tested for relative accuracy against one of the Hg reference methods in section (33~~2~~) of this rule or in **40 CFR 75.22** and has met a relative accuracy specification of 20.0% or less.
(b) For the purposes of missing data substitution, the fuel-specific or site-specific MPC values defined in subsection (25)(a) of this rule apply to units using sorbent trap monitoring systems.
(26) "Monitoring system" means any monitoring system that meets the requirements of OAR 340-228-06009~~58~~ through 0637~~0~~, including a continuous emissions monitoring system~~,~~ or an alternative monitoring system~~, or an expected monitoring system~~ under **40 CFR part 75**.
(27) "Nameplate capacity" means, starting from the initial installation of a generator, the maximum electrical generating output (in MWe) that the generator is capable of producing on a steady-state basis and during continuous operation (when not restricted by seasonal or other deratings) as specified by the manufacturer of the generator or, starting from the completion of any subsequent physical change in the generator resulting in an increase in the maximum electrical generating output (in MWe) that the generator is capable of producing on a steady-state basis and during continuous operation (when not restricted by seasonal or other deratings), such increased maximum amount as specified by the person conducting the physical change.

(28) "NIST traceable elemental Hg standards" means either:
(a) Compressed gas cylinders having known concentrations of elemental Hg, which have been prepared according to the "EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards"; or
(b) Calibration gases having known concentrations of elemental Hg, produced by a generator that fully meets the performance requirements of the "EPA Traceability Protocol for Qualification and Certification of Elemental Mercury Gas Generators".
(29) "NIST traceable source of oxidized Hg" means a generator that: Is capable of providing known concentrations of vapor phase mercuric chloride (HgCl2), and that fully meets the performance requirements of the "EPA Traceability Protocol for Qualification and Certification of Oxidized Mercury Gas Generators".
(30) "Operator" means any person who operates, controls, or supervises a coal-fired electric generating unit and shall include, but not be limited to, any holding company, utility system, or plant manager of such a unit or source.
(31) "Owner" means any of the following persons:
(a) Any holder of any portion of the legal or equitable title in a coal-fired electric generating unit;
(b) Any holder of a leasehold interest in a coal-fired electric generating unit; or
(c) Any purchaser of power from a coal-fired electric generating unit under a life-of-the-unit, firm power contractual arrangement; provided that, unless expressly provided for in a leasehold agreement, owner shall not include a passive lessor, or a person who has an equitable interest through such lessor, whose rental payments are not based (either directly or indirectly) on the revenues or income from such coal-fired electric generating unit.
(32) "Potential electrical output capacity" means 33 percent of a unit's maximum design heat input, divided by 3,413 Btu/kWh, divided by 1,000 kWh/MWh, and multiplied by 8,760 hr/yr.
(33) "Reference method" means any direct test method of sampling and analyzing for an air pollutant as follows or as specified in **40 CFR 75.22**.
(a) ASTM D6784–02, "Standard Test Method for Elemental, Oxidized, Particle-Bound, and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources" (Ontario Hydro Method) is the reference method for determining Hg concentration.
(b) Method 29 (40 CFR Part 60, Appendix A-8) for determining Hg concentration.
(c) Method 30A (40 CFR Part 60, Appendix A), "Determination of Total Vapor Phase Mercury Emissions from Stationary Sources (Instrumental Analyzer Procedure)" for determining Hg concentration.
(d) Method 30B (40 CFR Part 60, Appendix A), "Determination of Total Vapor Phase Mercury Emissions from Coal-Fired Combustion Sources Using Carbon Sorbent Traps" for determining Hg concentration.
(e) Method 29 (40 CFR Part 60, Appendix A-8) may be used with these caveats: The procedures for preparation of Hg standards and sample analysis in sections 13.4.1.1 through 13.4.1.3 ASTM D6784–02 must be followed instead of the procedures in sections 7.5.33 and 11.1.3 of Method 29, and the QA/QC procedures in section 13.4.2 of ASTM D6784–02 must be performed instead of the procedures in section 9.2.3 of Method 29. The tester may also opt to use the sample recovery and preparation procedures in ASTM D6784–02 instead of the Method 29 procedures, as follows: sections 8.2.8 and 8.2.9.1 of Method 29 may be replaced with sections 13.2.9.1 through 13.2.9.3 of ASTM D6784–02; sections 8.2.9.2 and 8.2.9.3 of Method 29 may be replaced with sections 13.2.10.1 through 13.2.10.4 of

ASTM D6784–02; section 8.3.4 of Method 29 may be replaced with section 13.3.4 or 13.3.6 of ASTM D6784–02 (as appropriate); and section 8.3.5 of Method 29 may be replaced with section 13.3.5 or 13.3.6 of ASTM D6784–02 (as appropriate).
(f) Whenever ASTM D6784–02 or Method 29 is used, paired sampling trains are required. To validate a RATA run or an emission test run, the relative deviation (RD), calculated according to OAR 340-228-0627(12)(g), must not exceed 10 percent, when the average concentration is greater than 1.0 µg/m3. If the average concentration is ≤1.0 µg/m3, the RD must not exceed 20 percent. The RD results are also acceptable if the absolute difference between the Hg concentrations measured by the paired trains does not exceed 0.03 µg/m3. If the RD criterion is met, the run is valid. For each valid run, average the Hg concentrations measured by the two trains (vapor phase, only).
(g) When Method 29 or ASTM D6784–02 is used for the Hg emission testing required under OAR 340-228-0613(3) and (4), locate the reference method test points according to section 8.1 of Method 30A, and if Hg stratification testing is part of the test protocol, follow the procedures in sections 8.1.3 through 8.1.3.5 of Method 30A.
(34) "Repowered" means, with regard to a unit, replacement of a coal-fired boiler with one of the following coal-fired technologies at the same source as the coal-fired boiler:
(a) Atmospheric or pressurized fluidized bed combustion;
(b) Integrated gasification combined cycle;
(c) Magnetohydrodynamics;
(d) Direct and indirect coal-fired turbines;
(e) Integrated gasification fuel cells; or
(f) As determined by the Department in consultation with the Secretary of Energy, a derivative of one or more of the technologies under paragraphs (a) through (e) of this definition and any other coal-fired technology capable of controlling multiple combustion emissions simultaneously with improved boiler or generation efficiency and with significantly greater waste reduction relative to the performance of technology in widespread commercial use as of January 1, 2005.
(35) "Sequential use of energy" means:
(a) For a topping-cycle cogeneration unit, the use of reject heat from electricity production in a useful thermal energy application or process; or
(b) For a bottoming-cycle cogeneration unit, the use of reject heat from useful thermal energy application or process in electricity production.
(36) “Sorbent trap monitoring system” means the equipment required for the continuous monitoring of Hg emissions, using paired sorbent traps containing iodinized charcoal (IC) or other suitable reagent(s). This excepted monitoring system consists of a probe, the paired sorbent traps, a heated umbilical line, moisture removal components, an airtight sample pump, a dry gas meter, and an automated data acquisition and handling system. The monitoring system samples the stack gas at a rate proportional to the stack gas volumetric flow rate. The sampling is a batch process. Using the sample volume measured by the dry gas meter and the results of the analyses of the sorbent traps, the average Hg concentration in the stack gas for the sampling period is determined, in units of micrograms per dry standard cubic meter (µg/dscm). Mercury mass emissions for each hour in the sampling period are calculated using the average Hg concentration for that period, in conjunction with contemporaneous hourly measurements of the stack gas flow rate, corrected for the stack gas moisture content.
(37) "Subbituminous" means coal that is classified as subbituminous A, B, or C, according to the American Society of Testing and Materials (ASTM) Standard Specification for Classification of Coals

by Rank D388-77, 90, 91, 95, 98a, or 99 (Reapproved 2004) (incorporated by reference, see 40 CFR 60.17).
(38) "Submit or serve" means to send or transmit a document, information, or correspondence to the person specified in accordance with the applicable regulation:
(a) In person;
(b) By United States Postal Service; or
(c) By other means of dispatch or transmission and delivery. Compliance with any "submission" or "service" deadline shall be determined by the date of dispatch, transmission, or mailing and not the date of receipt.
(39) "Title V operating permit" means a permit issued under title V of the CAA and 40 CFR part 70 or 71.
(40) "Title V operating permit regulations" means the regulations that the Administrator has approved or issued as meeting the requirements of title V of the CAA and 40 CFR part 70 or 71.
(41) "Topping-cycle cogeneration unit" means a cogeneration unit in which the energy input to the unit is first used to produce useful power, including electricity, and at least some of the reject heat from the electricity production is then used to provide useful thermal energy.
(42) "Total energy input" means, with regard to a cogeneration unit, total energy of all forms supplied to the cogeneration unit, excluding energy produced by the cogeneration unit itself. Each form of energy supplied shall be measured by the lower heating value of that form of energy calculated as follows:

$$LHV = HHV - 10.55(W + 9H)$$

Where:
LHV = lower heating value of fuel in Btu/lb,
HHV = higher heating value of fuel in Btu/lb,
W = Weight % of moisture in fuel, and
H = Weight % of hydrogen in fuel.
(43) "Total energy output" means, with regard to a cogeneration unit, the sum of useful power and useful thermal energy produced by the cogeneration unit.
(44) "Unit" means a stationary coal-fired boiler or a stationary coal-fired combustion turbine.
(45) "Unit operating day" means a calendar day in which a unit combusts any fuel.
(46) "Unit operating hour" or "hour of unit operation" means an hour in which a unit combusts any fuel.
(47) "Useful power" means, with regard to a cogeneration unit, electricity or mechanical energy made available for use, excluding any such energy used in the power production process (which process includes, but is not limited to, any on-site processing or treatment of fuel combusted at the unit and any on-site emission controls).
(48) "Useful thermal energy" means, with regard to a cogeneration unit, thermal energy that is:
(a) Made available to an industrial or commercial process (not a power production process), excluding any heat contained in condensate return or makeup water;
(b) Used in a heat application (e.g., space heating or domestic hot water heating); or
(c) Used in a space cooling application (i.e., thermal energy used by an absorption chiller).
(49) "Utility power distribution system" means the portion of an electricity grid owned or operated by a utility and dedicated to delivering electricity to customers.

Stat. Auth.: ORS 468.020 & 468A.310
Stats. Implemented: ORS 468A.025
Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06

340-228-0603
Measurements, Abbreviations, and Acronyms
Measurements, abbreviations, and acronyms used in this part are defined as follows:
(1) Btu-British thermal unit.
(2) CO_2-carbon dioxide.
(3) dscm-dry standard cubic meter.
(4) H_2O-water.
(5) Hg-mercury.
(6) hr-hour.
(7) kW-kilowatt electrical.
(8) kWh-kilowatt hour.
(9) lb-pound.
(10) m3-standard cubic meter
(11~~9~~) MMBtu-million Btu.
(12~~0~~) MWe-megawatt electrical.
(13~~1~~) MWh-megawatt hour.
(14~~2~~) NO_X-nitrogen oxides.
(15~~3~~) O_2-oxygen.
(16~~4~~) ppm-parts per million.
(17~~5~~) scf-standard cubic foot.
(18~~6~~) scfh-standard cubic feet per hour.
~~(17) scm-standard cubic meter.~~
(19~~7~~) SO_2-sulfur dioxide.
(20) µg-micrograms.
(21) wscm-wet standard cubic meter
(22) yr-year.
Stat. Auth.: ORS 468.020 & 468A.310
Stats. Implemented: ORS 468A.025
Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06

Monitoring Requirements

340-228-0613
Monitoring of Hg Mass Emissions and Heat Input at the Unit Level
The owner or operator of the affected coal-fired electric generating unit must meet the general operating requirements in **40 CFR 75.10** for the following continuous emission monitors (except as provided in accordance with **40 CFR part 75 subpart E**):
(1) A Hg concentration monitoring system (as defined in OAR 340-228-0602) or a sorbent trap monitoring system (as defined in OAR 340-228-0602) to measure Hg concentration; and
(2) A flow monitoring system; and

(3) A continuous moisture monitoring system (if correction of Hg concentration for moisture is required), as described in **40 CFR 75.11(b)** ~~**or 75.12(b)**~~. Alternatively, the owner or operator may use the appropriate fuel-specific default moisture value provided in **40 CFR 75.11 or 75.12**, or a site-specific moisture value approved by the Department; and
(4) If heat input is required to be reported, the owner or operator also must meet the general operating requirements for a flow monitoring system and an O2 or CO2 monitoring system to measure heat input rate.

340-228-0615
Monitoring of Hg Mass Emissions and Heat Input at Common and Multiple Stacks
(1) Unit utilizing common stack with other coal-fired electric generating unit(s). When a coal-fired electric generating unit utilizes a common stack with one or more coal-fired electric generating units, but no non coal-fired electric generating units, the owner or operator must either:
(a) Install, certify, operate, and maintain the monitoring systems described in OAR 340-228-0613 at the common stack and record the combined Hg mass emissions for the units exhausting to the common stack. If reporting of the unit heat input rate is required, determine the hourly unit heat input rates either by:
(A) Apportioning the common stack heat input rate to the individual units according to the procedures in **40 CFR 75.16(e)(3)**; or
(B) Installing, certifying, operating, and maintaining a flow monitoring system and diluent monitor in the duct to the common stack from each unit; or
(b) Install, certify, operate, and maintain the monitoring systems and (if applicable) perform the Hg emission testing described in OAR 340-228-0613 in the duct to the common stack from each unit.
(2) Unit utilizing common stack with non coal-fired electric generating unit(s). When one or more coal-fired electric generating units utilize a common stack with one or more non coal-fired electric generating units, the owner or operator must either:
(a) Install, certify, operate, and maintain the monitoring systems and (if applicable) perform the Hg emission testing described in OAR 340-228-0613 in the duct to the common stack from each coal-fired electric generating unit; or
(b) Install, certify, operate, and maintain the monitoring systems described in OAR 340-228-0613 in the common stack; and
(A) Install, certify, operate, and maintain the monitoring systems and (if applicable) perform the Hg emission testing described in OAR 340-228-0613 in the duct to the common stack from each non coal-fired electric generating unit. The owner or operator must submit a petition to the Department to allow a method of calculating and reporting the Hg mass emissions from the coal-fired electric generating units as the difference between Hg mass emissions measured in the common stack and Hg mass emissions measured in the ducts of the non coal-fired electric generating units, not to be reported as an hourly value less than zero. The Department may approve such a method whenever the owner or operator demonstrates, to the satisfaction of the Department, that the method ensures that the Hg mass emissions from the coal-fired electric generating units are not underestimated; or
(B) Count the combined emissions measured at the common stack as the Hg mass emissions for the coal-fired electric generating units, for recordkeeping and compliance purposes, in accordance with section (1) of this rule; or

(C) Submit a petition to the Department to allow use of a method for apportioning Hg mass emissions measured in the common stack to each of the units using the common stack and for reporting the Hg mass emissions. The Department may approve such a method whenever the owner or operator demonstrates, to the satisfaction of the Department, that the method ensures that the Hg mass emissions from the coal-fired electric generating units are not underestimated.
(c) If the monitoring option in subsection (2)(b) of this rule is selected, and if heat input is required to be reported, the owner or operator must either:
(A) Apportion the common stack heat input rate to the individual units according to the procedures in **40 CFR 75.16(e)(3)**; or
(B) Install a flow monitoring system and a diluent gas (O2 or CO2) monitoring system in the duct leading from each affected unit to the common stack, and measure the heat input rate in each duct, according to section 5.2 of **appendix F to 40 CFR part 75**.
(3) Unit with a main stack and a bypass stack. Whenever any portion of the flue gases from a coal-fired electric generating unit can be routed through a bypass stack to avoid the Hg monitoring system(s) installed on the main stack, the owner and operator must either:
(a) Install, certify, operate, and maintain the monitoring systems described in OAR 340-228-0613 on both the main stack and the bypass stack and calculate Hg mass emissions for the unit as the sum of the Hg mass emissions measured at the two stacks;
(b) Install, certify, operate, and maintain the monitoring systems described in OAR 340-228-0613 at the main stack and measure Hg mass emissions at the bypass stack using the appropriate reference methods in OAR 340-228-0602(33) or in **40 CFR 75.22**. Calculate Hg mass emissions for the unit as the sum of the emissions recorded by the installed monitoring systems on the main stack and the emissions measured by the reference method monitoring systems; ~~or~~
(c) Install, certify, operate, and maintain the monitoring systems and (if applicable) perform the Hg emission testing described in OAR 340-228-0613 only on the main stack. If this option is chosen, it is not necessary to designate the exhaust configuration as a multiple stack configuration in the monitoring plan required under **40 CFR 75.53** and OAR 340-228-0637(2), since only the main stack is monitored. For each unit operating hour in which the bypass stack is used, report, as applicable, the maximum potential Hg concentration (as defined in OAR 340-228-0602(25)), and the appropriate substitute data values for flow rate, CO2 concentration, O2 concentration, and moisture (as applicable), in accordance with the missing data procedures of OAR 340-228-0631 and 0633, as applicable; or~~.~~
(d) If the monitoring option in subsection (3)(a) or (b) of this rule is selected, and if heat input is required to be reported, the owner or operator must:
(A) Use the installed flow and diluent monitors to determine the hourly heat input rate at each stack (MMBtu/hr), according to section 5.2 of **appendix F to 40 CFR part 75**; and
(B) Calculate the hourly heat input at each stack (in MMBtu) by multiplying the measured stack heat input rate by the corresponding stack operating time; and
(C) Determine the hourly unit heat input by summing the hourly stack heat input values.
(4) Unit with multiple stack or duct configuration. When the flue gases from a coal-fired electric generating unit discharge to the atmosphere through more than one stack, or when the flue gases from a coal-fired electric generating unit utilize two or more ducts feeding into a single stack and the owner or operator chooses to monitor in the ducts rather than in the stack, the owner or operator must either:
(a) Install, certify, operate, and maintain the monitoring systems and (if applicable) perform the Hg emission testing described in OAR 340-228-0613 in each of the multiple stacks and determine Hg mass

emissions from the coal-fired electric generating unit as the sum of the Hg mass emissions recorded for each stack. If another unit also exhausts flue gases into one of the monitored stacks, the owner or operator must comply with the applicable requirements of sections (1) and (2) of this rule, in order to properly determine the Hg mass emissions from the units using that stack; ~~or~~
(b) Install, certify, operate, and maintain the monitoring systems and (if applicable) perform the Hg emission testing described in OAR 340-228-0613 in each of the ducts that feed into the stack, and determine Hg mass emissions from the coal-fired electric generating unit using the sum of the Hg mass emissions measured at each duct, except that where another unit also exhausts flue gases to one or more of the stacks, the owner or operator must also comply with the applicable requirements of sections (1) and (2) of this rule to determine and record Hg mass emissions from the units using that stack. The owner or operator must calculate Hg mass emissions and heat input rate in accordance with approved procedures~~.~~; or
(c) If the monitoring option in subsection (4)(a) or (b) of this rule is selected, and if heat input is required to be reported, the owner or operator must:
(A) Use the installed flow and diluent monitors to determine the hourly heat input rate at each stack or duct (MMBtu/ hr), according to section 5.2 of **appendix F to 40 CFR part 75**; and
(B) Calculate the hourly heat input at each stack or duct (in MMBtu) by multiplying the measured stack (or duct) heat input rate by the corresponding stack (or duct) operating time; and
(C) Determine the hourly unit heat input by summing the hourly stack (or duct) heat input values.

340-228-0617
Special Provisions for Measuring Hg Mass Emissions using the Sorbent Trap Monitoring Methodology
For an affected coal-fired electric generating unit, if the owner or operator elects to use sorbent trap monitoring systems to quantify Hg mass emissions, the guidelines in sections (1) through (11~~0~~) of this rule must be followed for this monitoring methodology:
(1) For each sorbent trap monitoring system (whether primary or redundant backup), the use of paired sorbent traps, as described in OAR 340-228-0627, is required.
(2) Each sorbent trap must have both a main section, a backup section, and a third section to allow spiking with a calibration gas of known Hg concentration, as described in OAR 340-228-0627.
(3) A certified flow monitoring system is required.
(4) Correction for stack gas moisture content is required, and in some cases, a certified O_2 or CO_2 monitoring system is required.
(5) Each sorbent trap monitoring system must be installed and operated in accordance with OAR 340-228-0627. The automated data acquisition and handling system must ensure that the sampling rate is proportional to the stack gas volumetric flow rate.
(6) At the beginning and end of each sample collection period, and at least once in each unit operating hour during the collection period, the dry gas meter reading must be recorded.
(7) After each sample collection period, the mass of Hg adsorbed in each sorbent trap (in all three sections) must be determined according to the applicable procedures in OAR 340-228-0627.
(8) The hourly Hg mass emissions for each collection period are determined using the results of the analyses in conjunction with contemporaneous hourly data recorded by a certified stack flow monitor, corrected for the stack gas moisture content. For each pair of sorbent traps analyzed, the average of the two Hg concentrations must be used for reporting purposes under OAR 340-228-0637(4).

Notwithstanding this requirement, if, due to circumstances beyond the control of the owner or operator, one of the paired traps is accidentally lost, damaged, or broken and cannot be analyzed, the results of the analysis of the other trap~~, if valid,~~ may be used for reporting purposes~~.~~, provided that:
(a) The other trap has met all of the applicable quality-assurance requirements; and
(b) The Hg concentration measured by the other trap is multiplied by a factor of 1.111.
(9) All unit operating hours for which valid Hg concentration data are obtained with the primary sorbent trap monitoring system (as verified using the quality assurance procedures in OAR 340-228-0627) must be reported in the ~~electronic~~ quarterly report under OAR 340-228-0637(4). For hours in which data from the primary monitoring system are invalid, the owner or operator may report valid Hg concentration data from a certified redundant backup CEMS or sorbent trap monitoring system or from an applicable reference method under OAR 340-228-0602(33) or **40 CFR 75.22**. If no quality-assured Hg concentration is available for a particular hour, the owner or operator must report the appropriate substitute data value in accordance with OAR 340-228-0633.
(10) Initial certification requirements and additional quality-assurance requirements for the sorbent trap monitoring systems are found in OAR 340-228-0627.
(11) Whenever the type of sorbent material used by the traps is changed, the owner or operator must conduct a diagnostic RATA of the modified sorbent trap monitoring system within 720 unit or stack operating hours after the date and hour when the new sorbent material is first used. If the diagnostic RATA is passed, data from the modified system may be reported as quality-assured, back to the date and hour when the new sorbent material was first used. If the RATA is failed, all data from the modified system shall be invalidated, back to the date and hour when the new sorbent material was first used, and data from the system shall remain invalid until a subsequent RATA is passed. If the required RATA is not completed within 720 unit or stack operating hours, but is passed on the first attempt, data from the modified system shall be invalidated beginning with the first operating hour after the 720 unit or stack operating hour window expires and data from the system shall remain invalid until the date and hour of completion of the successful RATA.

Monitoring Certification

340-228-0621
Initial Certification and Recertification Procedures

(1) The owner or operator of a coal-fired electric generating unit shall be exempt from the initial certification requirements of this rule for a monitoring system under OAR 340-228-0609(1)(a) if the following conditions are met:
(a) The monitoring system has been previously certified; and
(b) The applicable quality-assurance and quality-control requirements are fully met for the certified monitoring system described in subsection (1)(a) of this rule.
(2) The recertification provisions of this rule shall apply to a monitoring system under OAR 340-228-0609(1)(a) exempt from initial certification requirements under section (1) of this rule.
(3) Initial certification and recertification procedures. Except as provided in section (1) of this rule, the owner or operator of a coal-fired electric generating unit must comply with the following initial certification and recertification procedures for a continuous monitoring system (e.g., a continuous emission monitoring system or sorbent trap monitoring system). The owner or operator must meet any additional requirements for Hg concentration monitoring systems, sorbent trap monitoring systems (as

defined in OAR 340-228-0602(36)), flow monitors, CO2 monitors, O2 monitors, or moisture monitors, as set forth under OAR 340-228-0613, under the common stack provisions in OAR 340-228-0615. The owner or operator of a unit that qualifies to use an alternative monitoring system must comply with the procedures in section (4) of this rule.

(a) Requirements for initial certification. The owner or operator must ensure that each monitoring system under OAR 340-228-0609(1)(a) (including the automated data acquisition and handling system) successfully completes all of the initial certification testing by the applicable deadline in OAR 340-228-0609(2). In addition, whenever the owner or operator installs a monitoring system to meet the requirements of this rule in a location where no such monitoring system was previously installed, initial certification is required.

(b) Requirements for recertification. Whenever the owner or operator makes a replacement, modification, or change in any certified continuous emission monitoring system or sorbent trap monitoring system that may significantly affect the ability of the system to accurately measure or record the CO2 concentration, stack gas volumetric flow rate, Hg concentration, Hg mass emissions, percent moisture, or heat input rate or to meet the quality-assurance and quality-control requirements of **40 CFR 75.21,** OAR 340-228-0623, or **appendix B to 40 CFR part 75**, the owner or operator must recertify the monitoring system in accordance with **40 CFR 75.20(b)**. Furthermore, whenever the owner or operator makes a replacement, modification, or change to the flue gas handling system or the unit's operation that may significantly change the stack flow or concentration profile, the owner or operator must recertify each continuous emission monitoring system or sorbent trap monitoring system, whose accuracy is potentially affected by the change, in accordance with **40 CFR 75.20(b)**. Examples of changes to a continuous emission monitoring system that require recertification include replacement of the analyzer, complete replacement of an existing continuous emission monitoring system, or change in location or orientation of the sampling probe or site.

(c) Approval process for initial certification and recertification. Paragraphs (3)(c)(A) through (D) of this rule apply to both initial certification and recertification of a continuous monitoring system under OAR 340-228-0609(1)(a). For recertifications, apply the word "recertification" instead of the words "certification" and "initial certification" and apply the word "recertified" instead of the word "certified," and follow the procedures in **40 CFR 75.20(b)(5)** in lieu of the procedures in paragraph (3)(c)(E) of this rule.

(A) Notification of certification. The owner or operator must submit to the Department written notice of the dates of certification testing, in accordance with **40 CFR 75.61**.

(B) Certification application. The owner or operator must submit to the Department a certification application for each monitoring system. A complete certification application must include the information specified in **40 CFR 75.63**.

(C) Provisional certification date. The provisional certification date for a monitoring system must be determined in accordance with **40 CFR 75.20(a)(3)**. A provisionally certified monitoring system may be used for a period not to exceed 120 days after receipt by the Department of the complete certification application for the monitoring system under paragraph (3)(c)(B) of this rule. Data measured and recorded by the provisionally certified monitoring system will be considered valid quality-assured data (retroactive to the date and time of provisional certification), provided that the Department does not invalidate the provisional certification by issuing a notice of disapproval within 120 days of the date of receipt of the complete certification application by the Department.

(D) Certification application approval process. The Department will issue a written notice of approval or disapproval of the certification application to the owner or operator within 120 days of receipt of the complete certification application under paragraph (3)(c)(B) of this rule. In the event the Department does not issue such a notice within such 120-day period, each monitoring system that meets the applicable performance requirements and is included in the certification application will be deemed certified for use.
(i) Approval notice. If the certification application is complete and shows that each monitoring system meets the applicable performance requirements, then the Department will issue a written notice of approval of the certification application within 120 days of receipt.
(ii) Incomplete application notice. If the certification application is not complete, then the Department will issue a written notice of incompleteness that sets a reasonable date by which the owner or operator must submit the additional information required to complete the certification application. If the owner or operator does not comply with the notice of incompleteness by the specified date, then the Department may issue a notice of disapproval under subparagraph (3)(c)(D)(iii) of this rule. The 120-day review period must not begin before receipt of a complete certification application.
(iii) Disapproval notice. If the certification application shows that any monitoring system does not meet the performance requirements or if the certification application is incomplete and the requirement for disapproval under subparagraph (3)(c)(D)(ii) of this rule is met, then the Department will issue a written notice of disapproval of the certification application. Upon issuance of such notice of disapproval, the provisional certification is invalidated by the Department and the data measured and recorded by each uncertified monitoring system must not be considered valid quality-assured data beginning with the date and hour of provisional certification (as defined under **40 CFR 75.20(a)(3)**). The owner or operator must follow the procedures for loss of certification in paragraph (3)(c)(E) of this rule for each monitoring system that is disapproved for initial certification.
(iv) Audit decertification. The Department may issue a notice of disapproval of the certification status of a monitor in accordance with OAR 340-228-0629(2).
(E) Procedures for loss of certification. If the Department issues a notice of disapproval of a certification application under subparagraph (3)(c)(D)(iii) of this rule or a notice of disapproval of certification status under subparagraph (3)(c)(D)(iv) of this rule, then:
(i) The owner or operator must substitute the following values, as applicable, for each disapproved monitoring system, for each hour of unit operation during the period of invalid data specified under **40 CFR 75.20(a)(4)(iii)**, **40 CFR 75.21(e)** and continuing until such time, date, and hour as the continuous emission monitoring system can be adjusted, repaired, or replaced and certification tests successfully completed (or, if the conditional data validation procedures in **40 CFR 75.20(b)(3)(ii) through (ix)** are used, until a probationary calibration error test is passed following corrective actions in accordance with **40 CFR 75.20(b)(3)(ii)**):
(I) For a disapproved Hg pollutant concentration monitor and disapproved flow monitor, respectively, the maximum potential Hg concentration, as defined in OAR 340-228-0602(25), and the maximum potential flow rate, as defined in section 2.1.4.1 of **appendix A to 40 CFR part 75**; and
(II) For a disapproved moisture monitoring system and disapproved diluent gas monitoring system, respectively, the minimum potential moisture percentage and either the maximum potential CO_2 concentration or the minimum potential O_2 concentration (as applicable), as defined in sections 2.1.5, 2.1.3.1, and 2.1.3.2 of **appendix A to 40 CFR part 75**.

(III) For a disapproved sorbent trap monitoring system and disapproved flow monitor, respectively, the maximum potential Hg concentration, as defined in OAR 340-228-0602(25), and maximum potential flow rate, as defined in section 2.1.4.1 of **appendix A to 40 CFR part 75**.
(ii) The owner or operator must submit a notification of certification retest dates as specified in **40 CFR 75.61(a)(1)(ii)** and a new certification application in accordance with paragraphs (3)(c)(A) and (B) of this rule.
(iii) The owner or operator must repeat all certification tests or other requirements that were failed by the monitoring system, as indicated in the Department's notice of disapproval, no later than 30 unit operating days after the date of issuance of the notice of disapproval.
(d) For each Hg concentration monitoring system, the owner or operator must perform the following tests for initial certification or recertification of a Hg continuous emission system:
(A) A 7-day calibration error test in accordance with section 6.3 of **appendix A to 40 CFR part 75.** The owner or operator may perform this test using either NIST-traceable elemental Hg standards, a NIST-traceable source of oxidized Hg, or other NIST-traceable standards subject to the approval of the Department. The calibration error of a Hg concentration monitor must not deviate from the reference value of either the zero or upscale calibration gas by more than 5.0 percent of the span value, as calculated using Equation A–5 of **appendix A to 40 CFR part 75**. Alternatively, if the span value is 10 μg/m3, the calibration error test results are also acceptable if the absolute value of the difference between the monitor response value and the reference value, |R–A| in Equation A–5 of **appendix A to 40 CFR part 75**, is ≤ 1.0 μg/m3. If moisture is added to the calibration gas, the added moisture must be accounted for and the dry-basis concentration of the calibration gas must be used to calculate the calibration error.
(B) A linearity check in accordance with section 6.2 of **appendix A to 40 CFR part 75**. Design and equip each mercury monitor to permit the introduction of known concentrations of elemental Hg and $HgCl_2$ separately, at a point immediately preceding the sample extraction filtration system, such that the entire measurement system can be checked. If the Hg monitor does not have a converter, the $HgCl_2$ injection capability is not required. Follow the applicable procedures in section 6.2 of **appendix A to 40 CFR part 75** when performing the 3-level system integrity checks described in paragraph (3)(d)(F) of this rule. Perform the linearity check using NIST-traceable elemental Hg standards and the 3-level system integrity checks using NIST-traceable source of oxidized Hg or other NIST-traceable standards subject to the approval of the Department. If moisture is added to the calibration gas during the required linearity checks or system integrity checks, the moisture content of the calibration gas must be accounted for. Under these circumstances, the dry basis concentration of the calibration gas must be used to calculate the linearity error or measurement error (as applicable).
(C) A relative accuracy test audit (RATA) in accordance with section 6.5 of **appendix A to 40 CFR part 75** and as follows:
(i) The RATA must be performed on a μg/m3 basis and while the unit is combusting coal.
(ii) Calculate the relative accuracy, in accordance with section 7.3 or 7.4 of **appendix A to 40 CFR part 75**, as applicable.
(iii) The relative accuracy shall not exceed 20.0 percent. Alternatively, for affected units where the average of the reference method measurements of Hg concentration during the relative accuracy test audit is less than 5.0 μg/m3, the test results are acceptable if the difference between the mean value of the monitor measurements and the reference method mean value does not exceed 1.0 μg/m3, in cases where the relative accuracy specification of 20.0 percent is not achieved.

(iv) For the RATA of a Hg CEMS using the Ontario Hydro Method, or for the RATA of a sorbent trap system (irrespective of the reference method used), the time per run must be long enough to collect a sufficient mass of Hg to analyze. For the RATA of a sorbent trap monitoring system, use the same-size trap that is used for daily operation of the monitoring system. Spike the third section of each sorbent trap with elemental Hg, as described in OAR 340-228-0627(7)(a)(B). Install a new pair of sorbent traps prior to each test run. For each run, the sorbent trap data must be validated according to the quality assurance criteria in OAR 340-228-0627(8).
(v) Use the same basic approach for traverse point selection that is used for other gas monitoring system RATAs, except that the stratification test provisions in sections 8.1.3 through 8.1.3.5 of Method 30A shall apply, rather than the provisions of section 6.5.6.1 through 6.5.6.3 of **appendix A to 40 CFR part 75**.
(vi) Up to 336 consecutive unit or stack operating hours may be taken to complete the RATA of a Hg monitoring system, when the Ontario Hydro Method or Method 29 is used as the reference method.
(D) A bias test in accordance with section 7.6 of **appendix A to 40 CFR part 75** and as follows:
(i) To calculate bias for a Hg monitoring system when using the Ontario Hydro Method or Method 29, "d" is, for each data point, the difference between the average Hg concentration value (in µg/m3) from the paired Ontario Hydro or Method 29 sampling trains and the concentration measured by the monitoring system. For sorbent trap systems, use the average Hg concentration measured by the paired traps in calculation of "d".
(ii) For single-load RATAs of Hg concentration monitoring systems, and sorbent trap monitoring systems, the appropriate BAF is determined directly from the RATA results at normal load, using Equation A–12.
(iii) For multiple-load flow RATAs, perform a bias test at each load level designated as normal under section 6.5.2.1 of **appendix A to 40 CFR part 75**.
(iv~~i~~) Mercury concentration monitoring systems and sorbent trap monitoring systems shall not be biased low.
(v~~iii~~) For Hg concentration and sorbent trap monitoring systems, where the average Hg concentration during the RATA is < 5.0 µg/dscm, if the monitoring system meets the normal or the alternative relative accuracy specification in subparagraph (3)(d)(C)(iii) of this rule but fails the bias test, the owner or operator may either use the bias adjustment factor (BAF) calculated from Equation A–12 **appendix A to 40 CFR part 75** and in accordance with sections 7.6.4 and 7.6.5 of **appendix A to 40 CFR part 75,** using the data from the relative accuracy test audits, or may use a default BAF of 1.250 for reporting purposes.
(vi) Use the bias-adjusted values in computing substitution values in the missing data procedure and in reporting the concentration of Hg during the quarter and calendar year. In addition, when using a Hg concentration or sorbent trap monitoring system and a flow monitor to calculate Hg mass emissions, use bias-adjusted values for Hg concentration and flow rate in the mass emission calculations and use bias-adjusted Hg concentrations to compute the appropriate substitution values for Hg concentration in the missing data routines.
(E) A cycle time test in accordance to section 6.4 of **appendix A to 40 CFR part 75.** For Hg monitors, the calibration gas used for this test may either be the elemental or oxidized form of Hg. As an alternative, the reading is considered stable if it changes by no more than 0.5 µg/m3 for two minutes.
(F) A 3-level system integrity check, using a NIST-traceable source of oxidized Hg, or other NIST-traceable standards subject to the approval of the Department. This test is not required for an Hg monitor

that does not have a converter. The system measurement error ~~shall not exceed 5.0 percent of the span value at any of the three gas levels.~~ must not exceed 10.0 percent of the reference value at any of the three gas levels. To calibrate the measurement error at each level, take the absolute value of the difference between the reference value and mean CEM response, divide the result by the reference value, and then multiply by 100. Alternatively, the results at any gas level are acceptable if the absolute value of the difference between the average monitor response and the average reference value, i.e., |R–A| in equation A–4 of **appendix A to 40 CFR part 75**, does not exceed 0.8 μg/m3.
(4) Certification/recertification procedures for alternative monitoring systems. The owner or operator of each unit for which the owner or operator intends to use an alternative monitoring system approved by the Department must comply with the applicable notification and application procedures of **40 CFR 75.20(f)**.

Monitoring Quality Assurance/Quality Control

340-228-0623
Quality Assurance and Quality Control Requirements
(1) For units that use continuous emission monitoring systems to account for Hg mass emissions, the owner or operator must meet the applicable quality assurance and quality control requirements in **40 CFR 75.21, appendix B to 40 CFR part 75**, and as follows, for the flow monitoring systems, Hg concentration monitoring systems, moisture monitoring systems, and diluent monitors required under OAR 340-228-0613. Units using sorbent trap monitoring systems must meet the applicable quality assurance requirements in OAR 340-228-0617, 340-228-0627, and as follows.
(a) Calibration Error Test. Except as provided in section 2.1.1.2 of **appendix B to 40 CFR part 75**, perform the daily calibration error test of each Hg monitoring system according to the procedures in OAR 340-228-0621(3)(d)(A). For Hg monitors, the daily assessments may be made using either NIST-traceable elemental Hg standards, a NIST-traceable source of oxidized Hg, or other NIST-traceable standards subject to the approval of the Department.
(b) Data Validation. For a Hg monitor, an out-of-control period occurs when the calibration error exceeds 5.0% of the span value. Notwithstanding, the Hg monitor shall not be considered out-of-control if |R–A| in Equation A–6 of **appendix A to 40 CFR part 75** does not exceed 1.0 μg/m3.
(c) Linearity Check. Unless a particular monitor (or monitoring range) is exempted under this subsection or under section 6.2 of **appendix A to 40 CFR part 75**, perform a linearity check, in accordance with the procedures in section 6.2 of **appendix A to 40 CFR part 75**, for each primary and redundant backup Hg at least once during each QA operating quarter, as defined in **40 CFR 72.2**. For Hg monitors, perform the linearity checks using NIST-traceable elemental Hg standards, or other NIST-traceable standards subject to the approval of the Department. Alternatively, the owner or operator may perform 3-level system integrity checks at the same three calibration gas levels (*i.e.*, low, mid, and high), using a NIST-traceable source of oxidized Hg, or other NIST-traceable standards subject to the approval of the Department. If choosing this option, the performance specification in paragraph (1)(i)(B) of this rule must be met at each gas level. For units using both a low and high span value, a linearity check is required only on the range(s) used to record and report emission data during the QA operating quarter. Conduct the linearity checks no less than 30 days apart, to the extent practicable.

(d) Standard RATA Frequencies. For each primary and redundant backup Hg concentration monitoring system and each sorbent trap monitoring system, RATAs must be performed annually, i.e., once every four successive QA operating quarters (as defined in **40 CFR 72.2**).
(e) RATA Load (or Operating) Levels and Additional RATA Requirements. For Hg concentration monitoring systems and sorbent trap monitoring systems, the required semiannual or annual RATA tests must be done at the load level (or operating level) designated as normal under section 6.5.2.1(d) of **appendix A to 40 CFR part 75**. If two load levels (or operating levels) are designated as normal, the required RATA(s) may be done at either load level (or operating level).
(f) Data Validation. Each time that a hands-off RATA of a Hg concentration monitoring system or a sorbent trap monitoring system is passed, perform a bias test in accordance with section 7.6.4 of **appendix A to 40 CFR part 75**. Apply the appropriate bias adjustment factor to the reported Hg data, in accordance with subsection (1)(g) of this rule.
(g) Bias Adjustment Factor. Except as otherwise specified in section 7.6.5 of **appendix A to 40 CFR part 75**, if an Hg concentration monitoring system or sorbent trap monitoring system fails the bias test, use the bias adjustment factor given in Equations A–11 and A–12 of **appendix A to 40 CFR part 75,** or a default bias adjustment factor of 1.250, to adjust the monitored data.
(h) Bias Adjusted Values. Use the bias-adjusted values in computing substitution values in the missing data procedure and in reporting the concentration of Hg during the quarter and calendar year. In addition, when using a Hg concentration or sorbent trap monitoring system and a flow monitor to calculate Hg mass emissions, use bias-adjusted values for Hg concentration and flow rate in the mass emission calculations and use bias-adjusted Hg concentrations to compute the appropriate substitution values for Hg concentration in the missing data routines.
(i) System Integrity Checks for Hg Monitors. For each Hg concentration monitoring system (except for a Hg monitor that does not have a converter), perform a single-point system integrity check weekly, i.e., at least once every 168 unit or stack operating hours, using a NIST-traceable source of oxidized Hg, or other NIST-traceable standards subject to the approval of the Department. Perform this check as follows using a mid- or high-level gas concentration, as defined in section 5.2 of **appendix A to 40 CFR part 75**.
(A) The performance specification in paragraph (1)(i)(B) must be met, otherwise the monitoring system is considered out-of-control, from the hour of the failed check until a subsequent system integrity check is passed. If a required system integrity check is not performed and passed within 168 unit or stack operating hours of last successful check, the monitoring system shall also be considered out of control, beginning with the 169th unit of stack operating hour after the last successful check, and continuing until a subsequent system integrity check is passed. This weekly check is not required if the daily calibration assessments in subsection (1)(a) of this rule are performed using a NIST-traceable source of oxidized Hg, or other NIST-traceable standards subject to the approval of the Department.
(B) The measurement error for the ~~in~~ linearity check ~~for each calibration gas concentration (low-, mid-, and high-levels)~~ must not exceed 10.0 percent ~~or deviate from~~ of the reference value at any of the three gas levels. ~~by more than 10.0 percent as calculated using equation A–4 of **appendix A to 40 CFR part 75**; or,~~ To calibrate the measurement error at each level, take the absolute value of the difference between the ~~average of the monitor response values and the average of the~~ reference values and mean CEM response, divide the result by the reference value, and then multiply by 100. Alternatively, the results at any gas level are acceptable if the absolute value of the difference between the average monitor response and the average reference values, i.e., |R–A| in equation A–4 of **appendix A to 40**

CFR part 75, does not exceed ~~must be less than or equal to 1.0~~0.8 μg/~~sc~~m3~~, whichever is less restrictive~~.
(2) Missing data procedures. Except as provided in OAR 340-228-0617(11) and 340-228-0631(2), the owner or operator must provide substitute data from monitoring systems required under OAR 340-228-0613 for each affected unit as follows:
(a) For an owner or operator using an Hg concentration monitoring system, substitute for missing data in accordance with the applicable missing data procedures in **40 CFR 75.31 through 75.37** and OAR 340-228-0631 and 0633 whenever the unit combusts fuel and:
(A) A valid, quality-assured hour of Hg concentration data (in μg/m3) has not been measured and recorded, either by a certified Hg concentration monitoring system, by an appropriate reference method under OAR 340-228-0602(33) or **40 CFR 75.22**, or by an approved alternative monitoring method under **40 CFR part 75 subpart E**; or
(B) A valid, quality-assured hour of flow rate data (in scfh) has not been measured and recorded for a unit either by a certified flow monitor, by an appropriate EPA reference method under **40 CFR 75.22**, or by an approved alternative monitoring system under **40 CFR part 75 subpart E**; or
(C) A valid, quality-assured hour of moisture data (in percent H2O) has not been measured or recorded for an affected unit, either by a certified moisture monitoring system, by an appropriate EPA reference method under **40 CFR 75.22**, or an approved alternative monitoring method under **40 CFR part 75 subpart E**. This requirement does not apply when a default percent moisture value, as provided in **40 CFR 75.11(b)**, is used to account for the hourly moisture content of the stack gas, or when correction of the Hg concentration for moisture is not necessary; or
(D) A valid, quality-assured hour of heat input rate data (in MMBtu/hr) has not been measured and recorded for a unit, either by certified flow rate and diluent (CO_2 or O_2) monitors, by appropriate EPA reference methods under **40 CFR 75.22**, or by approved alternative monitoring systems under **40 CFR part 75 subpart E**.
(b) For an owner or operator using a sorbent trap monitoring system to quantify Hg mass emissions, substitute for missing data in accordance with the missing data procedures in OAR 340-228-0633.

CEMS Performance Specifications

340-228-0625
Specifications and Test Procedures for Total Vapor Phase Mercury CEMS
(1) Analyte. Mercury (Hg), CAS No. 7439-97-6.
(2) Applicability.
(a) This specification is for evaluating the acceptability of total vapor phase Hg CEMS installed on the exit gases from fossil fuel fired boilers at the time of or soon after installation and whenever specified in the regulations. The Hg CEMS must be capable of measuring the total concentration in μg/m3 (regardless of speciation) of vapor phase Hg, and recording that concentration on a wet or dry basis.
(b) Particle bound Hg is not included in the measurements.
(c) This specification is not designed to evaluate an installed CEMS's performance over an extended period of time nor does it identify specific calibration techniques and auxiliary procedures to assess the CEMS's performance. The source owner or operator, however, is responsible to calibrate, maintain, and operate the CEMS properly.

(d) The Department may require the operator to conduct CEMS performance evaluations at other times besides the initial test to evaluate the CEMS performance.
(e) The owner or operator must conduct the performance evaluation of the Hg CEMS according to OAR 340-228-0621(3)(d) and the following procedures:
(3) Summary of Performance Specification. Procedures for measuring CEMS relative accuracy, measurement error and drift are outlined. CEMS installation and measurement location specifications, and data reduction procedures are included. Conformance of the CEMS with the Performance Specification is determined.
(4) Definitions.
(a) "Continuous Emission Monitoring System (CEMS)" means the total equipment required for the determination of a pollutant concentration. The system consists of the following major subsystems:
(A) "Sample Interface" means that portion of the CEMS used for one or more of the following: sample acquisition, sample transport, sample conditioning, and protection of the monitor from the effects of the stack effluent.
(B) "Hg Analyzer" means that portion of the Hg CEMS that measures the total vapor phase Hg mass concentration and generates a proportional output.
(C) "Data Recorder" means that portion of the CEMS that provides a permanent electronic record of the analyzer output. The data recorder may provide automatic data reduction and CEMS control capabilities.
(b) "Span Value" means the upper limit of the intended Hg concentration measurement range. The span value is a value equal to two times the emission standard. Alternatively, the Hg span value(s) may be determined as follows:
(A) For each Hg monitor, determine a high span value, by rounding the maximum potential Hg concentration value from OAR 340-228-0602(25) upward to the next highest multiple of 10 μg/m3.
(B) For an affected unit equipped with an FGD system or a unit with add-on Hg emission controls, if the maximum expected Hg concentration value from OAR 340-228-0602(24~~5~~) is less than 20 percent of the high span value from paragraph (4)(b)(A) of this rule, and if the high span value is 20 μg/m3 or greater, define a second, low span value of 10 μg/m3.
(C) If only a high span value is required, set the full-scale range of the Hg analyzer to be greater than or equal to the span value.
(D) If two span values are required, the owner or operator may either:
(i) Use two separate (high and low) measurement scales, setting the range of each scale to be greater than or equal to the high or low span value, as appropriate; or
(ii) Quality-assure two segments of a single measurement scale.
(c) "Measurement Error (ME)" means the absolute value of the difference between the concentration indicated by the Hg analyzer and the known concentration generated by a reference gas, expressed as a percentage of the span value, when the entire CEMS, including the sampling interface, is challenged. An ME test procedure is performed to document the accuracy and linearity of the Hg CEMS at several points over the measurement range.
(d) "Upscale Drift (UD)" means the absolute value of the difference between the CEMS output response and an upscale Hg reference gas, expressed as a percentage of the span value, when the entire CEMS, including the sampling interface, is challenged after a stated period of operation during which no unscheduled maintenance, repair, or adjustment took place.
(e) "Zero Drift (ZD)" means the absolute value of the difference between the CEMS output response and a zero-level Hg reference gas, expressed as a percentage of the span value, when the entire CEMS,

including the sampling interface, is challenged after a stated period of operation during which no unscheduled maintenance, repair, or adjustment took place.
(f) "Relative Accuracy (RA)" means the absolute mean difference between the pollutant concentration(s) determined by the CEMS and the value determined by the reference method (RM) plus the 2.5 percent error confidence coefficient of a series of tests divided by the mean of the RM tests. Alternatively, for low concentration sources, the RA may be expressed as the absolute value of the difference between the mean CEMS and RM values.
(5) Safety. The procedures required under this performance specification may involve hazardous materials, operations, and equipment. This performance specification may not address all of the safety problems associated with these procedures. It is the responsibility of the user to establish appropriate safety and health practices and determine the applicable regulatory limitations prior to performing these procedures. The CEMS user's manual and materials recommended by the RM should be consulted for specific precautions to be taken.
(6) Equipment and Supplies.
(a) CEMS Equipment Specifications.
(A) Data Recorder Scale. The Hg CEMS data recorder output range must include zero and a high level value. The high level value must be approximately two times the Hg concentration corresponding to the emission standard level for the stack gas under the circumstances existing as the stack gas is sampled. A lower high level value may be used, provided that the measured values do not exceed 95 percent of the high level value. Alternatively, the owner or operator may set the full-scale range(s) of the Hg analyzer according to subsection (4)(b) of this rule.
(B) The CEMS design should also provide for the determination of calibration drift at a zero value (zero to 20 percent of the span value) and at an upscale value (between 50 and 100 percent of the high-level value).
(b) Reference Gas Delivery System. The reference gas delivery system must be designed so that the flowrate of reference gas introduced to the CEMS is the same at all three challenge levels specified in subsection (7)(a) of this rule and at all times exceeds the flow requirements of the CEMS.
(c) Other equipment and supplies, as needed by the applicable reference method used. See paragraph (8)(f)(B) of this rule.
(7) Reagents and Standards.
(a) Reference Gases. Reference gas standards are required for both elemental and oxidized Hg (Hg and mercuric chloride, HgCl2). The use of National Institute of Standards and Technology (NIST)-certified or NIST-traceable standards and reagents is required. The following gas concentrations are required.
(A) Zero-level. 0 to 20 percent of the span value.
(B) Mid-level. 50 to 60 percent of the span value.
(C) High-level. 80 to 100 percent of the span value.
(b) Reference gas standards may also be required for the reference methods. See paragraph (8)(f)(B) of this rule.
(8) Performance Specification (PS) Test Procedure.
(a) Installation and Measurement Location Specifications.
(A) CEMS Installation. Install the CEMS at an accessible location downstream of all pollution control equipment. Since the Hg CEMS sample system normally extracts gas from a single point in the stack, use a location that has been shown to be free of stratification for SO_2 and NO_X through concentration measurement traverses for those gases. If the cause of failure to meet the RA test requirement is

determined to be the measurement location and a satisfactory correction technique cannot be established, the Administrator may require the CEMS to be relocated. Measurement locations and points or paths that are most likely to provide data that will meet the RA requirements are listed below.
(B) Measurement Location. The measurement location should be (1) at least two equivalent diameters downstream of the nearest control device, point of pollutant generation or other point at which a change of pollutant concentration may occur, and (2) at least half an equivalent diameter upstream from the effluent exhaust. The equivalent duct diameter is calculated as per **appendix A to 40 CFR part 60**, Method 1.
(C) Hg CEMS Sample Extraction Point. Use a sample extraction point (1) no less than 1.0 meter from the stack or duct wall, or (2) within the centroidal velocity traverse area of the stack or duct cross section.
(b) RM Measurement Location and Traverse Points. Refer to PS 2 of **appendix B to 40 CFR part 60**. The RM and CEMS locations need not be immediately adjacent.
(c) ME Test Procedure. The Hg CEMS must be constructed to permit the introduction of known concentrations of Hg and HgCl2 separately into the sampling system of the CEMS immediately preceding the sample extraction filtration system such that the entire CEMS can be challenged. Sequentially inject each of the three reference gases (zero, mid-level, and high level) for each Hg species. Record the CEMS response and subtract the reference value from the CEMS value, and express the absolute value of the difference as a percentage of the span value. For each reference gas, the absolute value of the difference between the CEMS response and the reference value must not exceed 5 percent of the span value. If this specification is not met, identify and correct the problem before proceeding.
(d) UD Test Procedure.
(A) UD Test Period. While the affected facility is operating at more than 50 percent of normal load, or as specified in an applicable subpart, determine the magnitude of the UD once each day (at 24-hour intervals, to the extent practicable) for 7 consecutive unit operating days according to the procedure given in paragraphs (8)(d)(B) through (C) of this rule. The 7 consecutive unit operating days need not be 7 consecutive calendar days. Use either Hg^0 or HgCl2 standards for this test.
(B) The purpose of the UD measurement is to verify the ability of the CEMS to conform to the established CEMS response used for determining emission concentrations or emission rates. Therefore, if periodic automatic or manual adjustments are made to the CEMS zero and response settings, conduct the UD test immediately before these adjustments, or conduct it in such a way that the UD can be determined.
(C) Conduct the UD test at either the mid-level or high-level point specified in subsection (7)(a) of this rule. Introduce the reference gas to the CEMS. Record the CEMS response and subtract the reference value from the CEMS value, and express the absolute value of the difference as a percentage of the span value. For the reference gas, the absolute value of the difference between the CEMS response and the reference value must not exceed 5 percent of the span value. If this specification is not met, identify and correct the problem before proceeding.
(e) ZD Test Procedure.
(A) ZD Test Period. While the affected facility is operating at more than 50 percent of normal load, or as specified in an applicable subpart, determine the magnitude of the ZD once each day (at 24-hour intervals, to the extent practicable) for 7 consecutive unit operating days according to the procedure

given in paragraphs (8)(e)(B) through (C) of this rule. The 7 consecutive unit operating days need not be 7 consecutive calendar days. Use either nitrogen, air, Hg^0, or HgCl2 standards for this test.
(B) The purpose of the ZD measurement is to verify the ability of the CEMS to conform to the established CEMS response used for determining emission concentrations or emission rates. Therefore, if periodic automatic or manual adjustments are made to the CEMS zero and response settings, conduct the ZD test immediately before these adjustments, or conduct it in such a way that the ZD can be determined.
(C) Conduct the ZD test at the zero level specified in subsection (7)(a) of this rule. Introduce the zero gas to the CEMS. Record the CEMS response and subtract the zero value from the CEMS value and express the absolute value of the difference as a percentage of the span value. For the zero gas, the absolute value of the difference between the CEMS response and the reference value must not exceed 5 percent of the span value. If this specification is not met, identify and correct the problem before proceeding.
(f) RA Test Procedure.
(A) RA Test Period. Conduct the RA test according to the procedure given in paragraphs (8)(f)(B) through (F) of this rule while the affected facility is operating at normal full load, or as specified in an applicable subpart. The RA test may be conducted during the ZD and UD test period.
(B) RM. Use one of the reference methods specified in OAR 340-228-0602(33). Do not include the filterable portion of the sample when making comparisons to the CEMS results. When Method 29 or ASTM D6784–02 is used, conduct the RM test runs with paired or duplicate sampling systems. When an approved instrumental method is used, paired sampling systems are not required. If the RM and CEMS measure on a different moisture basis, data derived with Method 4 in **appendix A to 40 CFR part 60** must also be obtained during the RA test.
(C) Sampling Strategy for RM Tests. Conduct the RM tests in such a way that they will yield results representative of the emissions from the source and can be compared to the CEMS data. It is preferable to conduct moisture measurements (if needed) and Hg measurements simultaneously, although moisture measurements that are taken within an hour of the Hg measurements may be used to adjust the Hg concentrations to a consistent moisture basis. In order to correlate the CEMS and RM data properly, note the beginning and end of each RM test period for each paired RM run (including the exact time of day) on the CEMS chart recordings or other permanent record of output.
(D) Number and length of RM Tests. Conduct a minimum of nine RM test runs. When Method 29 or ASTM D6784–02 is used, only test runs for which the data from the paired RM trains meet the relative deviation (RD) criteria of this PS must be used in the RA calculations. In addition, for Method 29 and ASTM D 6784–02, use a minimum sample run time of 2 hours. **Note:** More than nine sets of RM tests may be performed. If this option is chosen, paired RM test results may be excluded so long as the total number of paired RM test results used to determine the CEMS RA is greater than or equal to nine. However, all data must be reported, including the excluded data.
(E) Correlation of RM and CEMS Data. Correlate the CEMS and the RM test data as to the time and duration by first determining from the CEMS final output (the one used for reporting) the integrated average pollutant concentration for each RM test period. Consider system response time, if important, and confirm that the results are on a consistent moisture basis with the RM test. Then, compare each integrated CEMS value against the corresponding RM value. When Method 29 or ASTM D6784–02 is used, compare each CEMS value against the corresponding average of the paired RM values.
(F) Paired RM Outliers.

(i) When Method 29 or ASTM D6784–02 is used, outliers are identified through the determination of relative deviation (RD) of the paired RM tests. Data that do not meet this criteria should be flagged as a data quality problem. The primary reason for performing paired RM sampling is to ensure the quality of the RM data. The percent RD of paired data is the parameter used to quantify data quality. Determine RD for two paired data points as follows:

$$RD = 100 \times |(Ca - Cb)|/(Ca + Cb)$$

where Ca and Cb are concentration values determined from each of the two samples respectively.
(ii) A minimum performance criteria for RM Hg data is that RD for any data pair must be ≤10 percent as long as the mean Hg concentration is greater than 1.0 μg/m3. If the mean Hg concentration is less than or equal to 1.0 μg/m3, the RD must be ≤20 percent. Pairs of RM data exceeding these RD criteria should be eliminated from the data set used to develop a Hg CEMS correlation or to assess CEMS RA.
(G) Calculate the mean difference between the RM and CEMS values in the units of micrograms per cubic meter (μg/m3), the standard deviation, the confidence coefficient, and the RA according to the procedures in section (10) of this rule.
(g) Reporting. At a minimum (check with the Department for additional requirements, if any), summarize in tabular form the results of the RD tests and the RA tests or alternative RA procedure, as appropriate. Include all data sheets, calculations, charts (records of CEMS responses), reference gas concentration certifications, and any other information necessary to confirm that the performance of the CEMS meets the performance criteria.
(9) Analytical Procedure. Sample collection and analysis are concurrent for this PS (see section (8) of this rule). Refer to the RM employed for specific analytical procedures.
(10) Calculations and Data Analysis. Summarize the results on a data sheet similar to that shown in Figure 2–2 for PS 2.
(a) Consistent Basis. All data from the RM and CEMS must be compared in units of μg/m3, on a consistent and identified moisture and volumetric basis (STP = 20^{o}C, 760 millimeters (mm) Hg).
(b) Moisture Correction (as applicable). If the RM and CEMS measure Hg on a different moisture basis, using the following equation to make the appropriate corrections to the Hg concentrations.

$$\text{Concentration(dry)} = \text{Concentration(wet)}/(1 - B_{ws})$$

In the above equation, Bws is the moisture content of the flue gas from Method 4, expressed as a decimal fraction (*e.g.*, for 8.0 percent H2O, Bws = 0.08).
(c) Arithmetic Mean. Calculate the arithmetic mean of the difference, d, of a data set using equation 2 to this division.
(d) Standard Deviation. Calculate the standard deviation, Sd, using equation 3 to this division.
(e) Confidence Coefficient (CC). Calculate the 2.5 percent error confidence coefficient (one-tailed), CC, using equation 4 to this division.
(f) RA. Calculate the RA of a set of data using equation 5 to this division.
(11) Performance Specifications.
(a) ME. ME is assessed at zero-level, mid-level and high-level values as given below using standards for both Hg^0 and HgCl2. The mean difference between the indicated CEMS concentration and the reference concentration value for each standard must be no greater than 5 percent of the span value.

(b) UD. The UD must not exceed 5 percent of the span value on any of the 7 days of the UD test.
(c)ZD. The ZD must not exceed 5 percent of the span value on any of the 7 days of the ZD test.
(d) RA. The RA of the CEMS must be no greater than 20 percent of the mean value of the RM test data in terms of units of µg/m3. Alternatively, if the mean RM is less than 5.0 µg/m3, the results are acceptable if the absolute value of the difference between the mean RM and CEMS values does not exceed 1.0 µg/m3.
(12) Bibliography.
(a) 40 CFR part 60, appendix B, ''Performance Specification 2—Specifications and Test Procedures for SO_2 and NO_X Continuous Emission Monitoring Systems in Stationary Sources.''
(b) 40 CFR part 60, appendix A, ''Method 29—Determination of Metals Emissions from Stationary Sources.''
(c) ASTM Method D6784–02, ''Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method).''
(13) The following values are already corrected for n–1 degrees of freedom. Use n equal to the number of individual values.
(a) For n = 2, $t_{0.975}$ = 12.706.
(b) For n = 3, $t_{0.975}$ = 4.303.
(c) For n = 4, $t_{0.975}$ = 3.182.
(d) For n = 5, $t_{0.975}$ = 2.776.
(e) For n = 6, $t_{0.975}$ = 2.571.
(f) For n = 7, $t_{0.975}$ = 2.447.
(g) For n = 8, $t_{0.975}$ = 2.365.
(h) For n = 9, $t_{0.975}$ = 2.306.
(i) For n = 10, $t_{0.975}$ = 2.262.
(j) For n = 11, $t_{0.975}$ = 2.228.
(k) For n = 12, $t_{0.975}$ = 2.201.
(l) For n = 13, $t_{0.975}$ = 2.179.
(m) For n = 14, $t_{0.975}$ = 2.160.
(n) For n = 15, $t_{0.975}$ = 2.145.
(o) For n = 16, $t_{0.975}$ = 2.131.

Sorbent Trap Sampling Procedures

340-228-0627
Quality Assurance and Operating Procedures for Sorbent Trap Monitoring Systems
(1) Scope and Application. This rule specifies sampling, and analytical, and quality-assurance criteria and procedures for the performance-based monitoring of vapor-phase mercury (Hg) emissions in combustion flue gas streams, using a sorbent trap monitoring system (as defined in OAR 340-228-0602). The principle employed is continuous sampling using in-stack sorbent media coupled with analysis of the integrated samples. The performance-based approach of this rule allows for use of various suitable sampling and analytical technologies while maintaining a specified and documented level of data quality through performance criteria. Persons using this rule should have a thorough working knowledge of Methods 1, 2, 3, 4 and 5 in **appendices A–1 through A–3 to 40 CFR part 60**, as well as the determinative technique selected for analysis.

(a) Analytes. The analyte measured by these procedures and specifications is total vapor-phase Hg in the flue gas, which represents the sum of elemental Hg (Hg^0, CAS Number 7439–97–6) and oxidized forms of Hg, in mass concentration units of micrograms per dry standard cubic meter (μg/dscm).
(b) Applicability. These performance criteria and procedures are applicable to monitoring of vapor-phase Hg emissions under relatively low-dust conditions (*i.e.*, sampling in the stack after all pollution control devices), from coal-fired electric utility steam generators. Individual sample collection times can range from 30 minutes to several days in duration, depending on the Hg concentration in the stack. The monitoring system must achieve the performance criteria specified in section (8) of this rule and the sorbent media capture ability must not be exceeded. The sampling rate must be maintained at a constant proportion to the total stack flowrate to ensure representativeness of the sample collected. Failure to achieve certain performance criteria will result in invalid Hg emissions monitoring data.
(2) Principle. Known volumes of flue gas are extracted from a stack or duct through paired, in-stack, pre-spiked sorbent media traps at an appropriate nominal flow rate. Collection of Hg on the sorbent media in the stack mitigates potential loss of Hg during transport through a probe/sample line. Paired train sampling is required to determine measurement precision and verify acceptability of the measured emissions data. The sorbent traps are recovered from the sampling system, prepared for analysis, as needed, and analyzed by any suitable determinative technique that can meet the performance criteria. A section of each sorbent trap is spiked with Hg^0 prior to sampling. This section is analyzed separately and the recovery value is used to correct the individual Hg sample for measurement bias.
(3) Clean Handling and Contamination. To avoid Hg contamination of the samples, special attention should be paid to cleanliness during transport, field handling, sampling, recovery, and laboratory analysis, as well as during preparation of the sorbent cartridges. Collection and analysis of blank samples (field, trip, lab) is useful in verifying the absence of contaminant Hg.
(4) Safety.
(a) Site hazards. Site hazards must be thoroughly considered in advance of applying these procedures/specifications in the field; advance coordination with the site is critical to understand the conditions and applicable safety policies. At a minimum, portions of the sampling system will be hot, requiring appropriate gloves, long sleeves, and caution in handling this equipment.
(b) Laboratory safety policies. Laboratory safety policies should be in place to minimize risk of chemical exposure and to properly handle waste disposal. Personnel must wear appropriate laboratory attire according to a Chemical Hygiene Plan established by the laboratory.
(c) Toxicity or carcinogenicity. The toxicity or carcinogenicity of any reagents used must be considered. Depending upon the sampling and analytical technologies selected, this measurement may involve hazardous materials, operations, and equipment and this rule does not address all of the safety problems associated with implementing this approach. It is the responsibility of the user to establish appropriate safety and health practices and determine the applicable regulatory limitations prior to performance. Any chemical should be regarded as a potential health hazard and exposure to these compounds should be minimized. Chemists should refer to the Material Safety Data Sheet (MSDS) for each chemical used.
(d) Wastes. Any wastes generated by this procedure must be disposed of according to a hazardous materials management plan that details and tracks various waste streams and disposal procedures.
(5) Equipment and Supplies. The following list is presented as an example of key equipment and supplies likely required to perform vapor-phase Hg monitoring using a sorbent trap monitoring system. It is recognized that additional equipment and supplies may be needed. Collection of paired samples is required. Also required are a certified stack gas volumetric flow monitor that meets the requirements of

40 CFR 75.10 and an acceptable means of correcting for the stack gas moisture content, *i.e.*, either by using data from a certified continuous moisture monitoring system or by using an approved default moisture value (see **40 CFR 75.11(b)~~ and 75.12(b)~~**).
(a) Sorbent Trap Monitoring System. The monitoring system must include the following components:
(A) Sorbent Traps. The sorbent media used to collect Hg must be configured in a trap with three distinct and identical segments or sections, connected in series, that are amenable to separate analyses. Section 1 is designated for primary capture of gaseous Hg. Section 2 is designated as a backup section for determination of vapor-phase Hg breakthrough. Section 3 is designated for QA/QC purposes where this section must be spiked with a known amount of gaseous Hg^0 prior to sampling and later analyzed to determine recovery efficiency. The sorbent media may be any collection material (*e.g.*, carbon, chemically-treated filter, etc.) capable of quantitatively capturing and recovering for subsequent analysis, all gaseous forms of Hg for the intended application. Selection of the sorbent media must be based on the material's ability to achieve the performance criteria contained in section (8) of this rule as well as the sorbent's vapor phase Hg capture efficiency for the emissions matrix and the expected sampling duration at the test site. The sorbent media must be obtained from a source that can demonstrate the quality assurance and control necessary to ensure consistent reliability. The paired sorbent traps are supported on a probe (or probes) and inserted directly into the flue gas stream.
(B) Sampling Probe Assembly. Each probe assembly must have a leak-free attachment to the sorbent trap(s). Each sorbent trap must be mounted at the entrance of or within the probe such that the gas sampled enters the trap directly. Each probe/sorbent trap assembly must be heated to a temperature sufficient to prevent liquid condensation in the sorbent trap(s). Auxiliary heating is required only where the stack temperature is too low to prevent condensation. Use a calibrated thermocouple to monitor the stack temperature. A single probe capable of operating the paired sorbent traps may be used. Alternatively, individual probe/sorbent trap assemblies may be used, provided that the individual sorbent traps are co-located to ensure representative Hg monitoring and are sufficiently separated to prevent aerodynamic interference.
(C) Moisture Removal Device. A robust moisture removal device or system, suitable for continuous duty (such as a Peltier cooler), must be used to remove water vapor from the gas stream prior to entering the dry gas meter.
(D) Vacuum Pump. Use a leak-tight, vacuum pump capable of operating within the candidate system's flow range.
(E) Dry Gas Meter. A dry gas meter must be used to determine total sample volume. The meter must be sufficiently accurate to measure the total sample volume within 2 percent, must be calibrated at the selected flow rate and conditions actually encountered during sampling, and must be equipped with a temperature sensor capable of measuring typical meter temperatures accurately to within 3^oC for correcting final sample volume.
(F) Sample Flow Rate Meter and Controller. Use a flow rate indicator and controller for maintaining necessary sampling flow rates.
(G) Temperature Sensor. Same as Section 6.1.1.7 of Method 5 in **appendix A–3 to 40 CFR part 60**.
(H) Barometer. Same as Section 6.1.2 of Method 5 in **appendix A–3 to 40 CFR part 60**.
(I) Data Logger (Optional). Device for recording associated and necessary ancillary information (e.g., temperatures, pressures, flow, time, etc.).
(b) Gaseous Hg^0 Sorbent Trap Spiking System. A known mass of gaseous Hg^0 must be spiked onto section 3 of each sorbent trap prior to sampling. Any approach capable of quantitatively delivering

known masses of Hg^0 onto sorbent traps is acceptable. Several technologies or devices are available to meet this objective. Their practicality is a function of Hg mass spike levels. For low levels, NIST-certified or NIST-traceable gas generators or tanks may be suitable, but will likely require long preparation times. A more practical, alternative system, capable of delivering almost any mass required, makes use of NIST-certified or NIST-traceable Hg salt solutions (*e.g.*, Hg(NO3)2). With this system, an aliquot of known volume and concentration is added to a reaction vessel containing a reducing agent (*e.g.*, stannous chloride); the Hg salt solution is reduced to Hg^0 and purged onto section 3 of the sorbent trap using an impinger sparging system.
(c) Sample Analysis Equipment. Any analytical system capable of quantitatively recovering and quantifying total gaseous Hg from sorbent media is acceptable provided that the analysis can meet the performance criteria in section (8) of this rule. Candidate recovery techniques include leaching, digestion, and thermal desorption. Candidate analytical techniques include ultraviolet atomic fluorescence (UV AF); ultraviolet atomic absorption (UV AA), with and without gold trapping; and in situ X-ray fluorescence (XRF) analysis.
(6) Reagents and Standards. Only NIST-certified or NIST-traceable calibration gas standards and reagents must be used for the tests and procedures required under this rule.
(7) Sample Collection and Transport.
(a) Pre-Test Procedures.
(A) Selection of Sampling Site. Sampling site information should be obtained in accordance with Method 1 in **appendix A–1 to 40 CFR part 60**. Identify a monitoring location representative of source Hg emissions. Locations shown to be free of stratification through measurement traverses for gases such as SO_2 and NO_X may be one such approach. An estimation of the expected stack Hg concentration is required to establish a target sample flow rate, total gas sample volume, and the mass of Hg^0 to be spiked onto section 3 of each sorbent trap.
(B) Pre-Sampling Spiking of Sorbent Traps. Based on the estimated Hg concentration in the stack, the target sample rate and the target sampling duration, calculate the expected mass loading for section 1 of each sorbent trap (for an example calculation, see subsection (12)(a) of this rule). The pre-sampling spike to be added to section 3 of each sorbent trap must be within $\pm$ 50 percent of the expected section 1 mass loading. Spike section 3 of each sorbent trap at this level, as described in subsection (5)(b) of this rule. For each sorbent trap, keep an official record of the mass of Hg^0 added to section 3. This record must include, at a minimum, the ID number of the trap, the date and time of the spike, the name of the analyst performing the procedure, the mass of Hg^0 added to section 3 of the trap (µg), and the supporting calculations. This record must be maintained in a format suitable for inspection and audit and must be made available to the regulatory agencies upon request.
(C) Pre-test Leak Check. Perform a leak check with the sorbent traps in place. Draw a vacuum in each sample train. Adjust the vacuum in the sample train to $\pm$15″ Hg. Using the dry gas meter, determine leak rate. The leakage rate must not exceed 4 percent of the target sampling rate. Once the leak check passes this criterion, carefully release the vacuum in the sample train then seal the sorbent trap inlet until the probe is ready for insertion into the stack or duct.
(D) Determination of Flue Gas Characteristics. Determine or measure the flue gas measurement environment characteristics (gas temperature, static pressure, gas velocity, stack moisture, etc.) in order to determine ancillary requirements such as probe heating requirements (if any), initial sample rate, proportional sampling conditions, moisture management, etc.
(b) Sample Collection.

(A) Remove the plug from the end of each sorbent trap and store each plug in a clean sorbent trap storage container. Remove the stack or duct port cap and insert the probe(s). Secure the probe(s) and ensure that no leakage occurs between the duct and environment.
(B) Record initial data including the sorbent trap ID, start time, starting dry gas meter readings, initial temperatures, setpoints, and any other appropriate information.
(C) Flow Rate Control. Set the initial sample flow rate at the target value from paragraph (7)(a)(A) of this rule. Record the initial dry gas meter reading, stack temperature, meter temperatures, etc. Then, for every operating hour during the sampling period, record the date and time, the sample flow rate, the gas meter reading, the stack temperature, the flow meter temperatures, temperatures of heated equipment such as the vacuum lines and the probes (if heated), and the sampling system vacuum readings. Also record the stack gas flow rate, as measured by the certified flow monitor, and the ratio of the stack gas flow rate to the sample flow rate. Adjust the sampling flow rate to maintain proportional sampling, *i.e.*, keep the ratio of the stack gas flow rate to sample flow rate constant, to within ± 25 percent of the reference ratio from the first hour of the data collection period (see section (11) of this rule). The sample flow rate through a sorbent trap monitoring system during any hour (or portion of an hour) in which the unit is not operating shall be zero.
(D) Stack Gas Moisture Determination. Determine stack gas moisture using a continuous moisture monitoring system, as described in **40 CFR 75.11(b)** ~~**or 75.12(b)**~~. Alternatively, the owner or operator may use the appropriate fuel-specific moisture default value provided in **40 CFR 75.11** ~~**or 75.12**~~, or a site specific moisture default value approved by petition under **40 CFR 75.66**.
(E) Essential Operating Data. Obtain and record any essential operating data for the facility during the test period, *e.g.*, the barometric pressure must be obtained for correcting sample volume to standard conditions. At the end of the data collection period, record the final dry gas meter reading and the final values of all other essential parameters.
(F) Post Test Leak Check. When sampling is completed, turn off the sample pump, remove the probe/sorbent trap from the port and carefully re-plug the end of each sorbent trap. Perform a leak check with the sorbent traps in place, at the maximum vacuum reached during the sampling period. Use the same general approach described in paragraph (7)(a)(C) of this rule. Record the leakage rate and vacuum. The leakage rate must not exceed 4 percent of the average sampling rate for the data collection period. Following the leak check, carefully release the vacuum in the sample train.
(G) Sample Recovery. Recover each sampled sorbent trap by removing it from the probe, sealing both ends. Wipe any deposited material from the outside of the sorbent trap. Place the sorbent trap into an appropriate sample storage container and store/preserve in appropriate manner.
(H) Sample Preservation, Storage, and Transport. While the performance criteria of this approach provide for verification of appropriate sample handling, it is still important that the user consider, determine, and plan for suitable sample preservation, storage, transport, and holding times for these measurements. Therefore, procedures in ASTM D6911–03 ''Standard Guide for Packaging and Shipping Environmental Samples for Laboratory Analysis'' must be followed for all samples.
(I) Sample Custody. Proper procedures and documentation for sample chain of custody are critical to ensuring data integrity. The chain of custody procedures in ASTM D4840–99 (reapproved 2004) ''Standard Guide for Sample Chain-of-Custody Procedures'' must be followed for all samples (including field samples and blanks).
(8) Quality Assurance and Quality Control. The owner and operator using a sorbent trap monitoring system must develop and implement a quality assurance/quality control (QA/QC) program. At a

minimum, include in each QA/QC program a written plan that describes in detail (or that refers to separate documents containing) complete, step-by-step procedures and operations. Upon request from the Department, the owner or operator must make all procedures, maintenance records, and ancillary supporting documentation from the manufacturer (e.g., software coefficients and troubleshooting diagrams) available for review during an audit. Electronic storage of the information in the QA/QC plan is permissible, provided that the information can be made available in hardcopy upon request during an audit. Table 2 to this division summarizes the QA/QC performance criteria that are used to validate the Hg emissions data from sorbent trap monitoring systems, including the relative accuracy test audit (RATA) requirement (see section 6.5.7 of **appendix A to 40 CFR part 75** and section 2.3 of **appendix B to 40 CFR part 75**, except that for sorbent trap monitoring systems, RATAs must be performed annually, i.e., once every four successive QA operating quarters). The RATA must meet the requirements in OAR 340-228-0621(3)(d)(C)(iii). Except as provided in OAR 340-228-0617(8) and as otherwise indicated in Table 2 to this division, failure to achieve these performance criteria will result in invalidation of Hg emissions data.

(9) Quality Assurance and Quality Control Plan Content. In addition to section 1 of **Appendix B to 40 CFR part 75**, the QA/QC plan must contain the following:

(a) Sorbent Trap Identification and Tracking. Include procedures for inscribing or otherwise permanently marking a unique identification number on each sorbent trap, for tracking purposes. Keep records of the ID of the monitoring system in which each sorbent trap is used, and the dates and hours of each Hg collection period.

(b) Monitoring System Integrity and Data Quality. Explain the procedures used to perform the leak checks when a sorbent trap is placed in service and removed from service. Also explain the other QA procedures used to ensure system integrity and data quality, including, but not limited to, dry gas meter calibrations, verification of moisture removal, and ensuring air-tight pump operation. In addition, the QA plan must include the data acceptance and quality control criteria in section (8) of this rule.

(c) Hg Analysis. Explain the chain of custody employed in packing, transporting, and analyzing the sorbent traps (see paragraphs (7)(b)(H) and (I) of this rule). Keep records of all Hg analyses. The analyses must be performed in accordance with the procedures described in section (11) of this rule.

(d) Laboratory Certification. The QA Plan must include documentation that the laboratory performing the analyses on the carbon sorbent traps is certified by the International Organization for Standardization (ISO) to have a proficiency that meets the requirements of ISO 17025. Alternatively, if the laboratory performs the spike recovery study described in subsection (11)(c) of this rule and repeats that procedure annually, ISO certification is not required.

(10) Calibration and Standardization.

(a) Only NIST-certified and NIST-traceable calibration standards (i.e., calibration gases, solutions, etc.) must be used for the spiking and analytical procedures in this rule.

(b) Dry Gas Meter Calibration. Prior to its initial use, perform a full calibration of the metering system at three orifice settings to determine the average dry gas meter coefficient (Y), as described in section 10.3.1 of Method 5 in **appendix A–3 to 40 CFR part 60**. Thereafter, recalibrate the metering system quarterly at one intermediate orifice setting, as described in section 10.3.2 of Method 5 in **appendix A–3 to 40 CFR part 60**. If a quarterly recalibration shows that the value of Y has changed by more than 5 percent, repeat the full calibration of the metering system to determine a new value of Y.

(c) Thermocouples and Other Temperature Sensors. Use the procedures and criteria in section 10.3 of Method 2 in **appendix A–1 to 40 CFR part 60** to calibrate in-stack temperature sensors and

thermocouples. Dial thermometers must be calibrated against mercury-in-glass thermometers. Calibrations must be performed prior to initial use and at least quarterly thereafter. At each calibration point, the absolute temperature measured by the temperature sensor must agree to within $\pm$ 1.5 percent of the temperature measured with the reference sensor, otherwise the sensor may not continue to be used.
(d) Barometer. Calibrate against a mercury barometer. Calibration must be performed prior to initial use and at least quarterly thereafter. At each calibration point, the absolute pressure measured by the barometer must agree to within $\pm$ 10 mm Hg of the pressure measured by the mercury barometer, otherwise the barometer may not continue to be used.
(e) Other Sensors and Gauges. Calibrate all other sensors and gauges according to the procedures specified by the instrument manufacturer(s).
(f) Analytical System Calibration. See subsection (10)(a) of this rule.
(11) Analytical Procedures. The analysis of the Hg samples may be conducted using any instrument or technology capable of quantifying total Hg from the sorbent media and meeting the performance criteria in section (8) of this rule.
(a) Analyzer System Calibration. Perform a multipoint calibration of the analyzer at three or more upscale points over the desired quantitative range (multiple calibration ranges must be calibrated, if necessary). The field samples analyzed must fall within a calibrated, quantitative range and meet the necessary performance criteria. For samples that are suitable for aliquotting, a series of dilutions may be needed to ensure that the samples fall within a calibrated range. However, for sorbent media samples that are consumed during analysis (*e.g.,* thermal desorption techniques), extra care must be taken to ensure that the analytical system is appropriately calibrated prior to sample analysis. The calibration curve range(s) should be determined based on the anticipated level of Hg mass on the sorbent media. Knowledge of estimated stack Hg concentrations and total sample volume may be required prior to analysis. The calibration curve for use with the various analytical techniques (*e.g.,* UV AA, UV AF, and XRF) can be generated by directly introducing standard solutions into the analyzer or by spiking the standards onto the sorbent media and then introducing into the analyzer after preparing the sorbent/standard according to the particular analytical technique. For each calibration curve, the value of the square of the linear correlation coefficient, i.e., r2, must be $\geq$ 0.99, and the analyzer response must be within $\pm$ 10 percent of reference value at each upscale calibration point. Calibrations must be performed on the day of the analysis, before analyzing any of the samples. Following calibration, an independently prepared standard (not from same calibration stock solution) must be analyzed. The measured value of the independently prepared standard must be within $\pm$ 10 percent of the expected value.
(b) Sample Preparation. Carefully separate the three sections of each sorbent trap. Combine for analysis all materials associated with each section, *i.e.,* any supporting substrate that the sample gas passes through prior to entering a media section (*e.g.,* glass wool, polyurethane foam, etc.) must be analyzed with that segment.
(c) Spike Recovery Study. Before analyzing any field samples, the laboratory must demonstrate the ability to recover and quantify Hg from the sorbent media by performing the following spike recovery study for sorbent media traps spiked with elemental mercury. Using the procedures described in subsections (5)(b) and (11)(a) of this rule, spike the third section of nine sorbent traps with gaseous Hg^0, *i.e.,* three traps at each of three different mass loadings, representing the range of masses anticipated in the field samples. This will yield a 3 x 3 sample matrix. Prepare and analyze the third section of each spiked trap, using the techniques that will be used to prepare and analyze the field samples. The average

recovery for each spike concentration must be between 85 and 115 percent. If multiple types of sorbent media are to be analyzed, a separate spike recovery study is required for each sorbent material. If multiple ranges are calibrated, a separate spike recovery study is required for each range.
(d) Field Sample Analyses. Analyze the sorbent trap samples following the same procedures that were used for conducting the spike recovery study. The three sections of the sorbent trap must be analyzed separately (i.e., section 1, then section 2, then section 3). Quantify the mass of total Hg for each section based on analytical system response and the calibration curve from subsection (10)(a) of this rule. Determine the spike recovery from sorbent trap section 3. Pre-sampling spike recoveries must be between 75 and 125 percent. To report final Hg mass, normalize the data for sections 1 and 2 based on the sample-specific spike recovery, and add the normalized masses together.
(12) Calculations and Data Analysis.
(a) Calculation of Pre-Sampling Spiking Level. Determine sorbent trap section 3 spiking level using estimates of the stack Hg concentration, the target sample flow rate, and the expected sample duration. First, calculate the expected Hg mass that will be collected in section 1 of the trap. The presampling spike must be within $\pm$ 50 percent of this mass. Example calculation: For an estimated stack Hg concentration of 5 µg/m3, a target sample rate of 0.30 L/min, and a sample duration of 5 days:

$$(0.30\ \text{L/min})\ (1440\ \text{min/day})\ (5\ \text{days})\ (10^{-3}\ \text{m3/liter})\ (5\mu\text{g/m3}) = 10.8\ \mu\text{g}$$

A pre-sampling spike of 10.8 µg $\pm$ 50 percent is, therefore, appropriate.
(b) Calculations for Flow-Proportional Sampling. For the first hour of the data collection period, determine the reference ratio of the stack gas volumetric flow rate to the sample flow rate, as follows:

$$Rref = K \times Qref / Fref$$

Where:
Rref = Reference ratio of hourly stack gas flow rate to hourly sample flow rate
Qref = Average stack gas volumetric flow rate for first hour of collection period, adjusted for bias, if necessary according to section 7.6.5 of **appendix A to 40 CFR part 75**, (scfh)
Fref = Average sample flow rate for first hour of the collection period, in appropriate units (*e.g.,* liters/min, cc/min, dscm/min)
K = Power of ten multiplier, to keep the value of Rref between 1 and 100. The appropriate K value will depend on the selected units of measure for the sample flow rate. Then, for each subsequent hour of the data collection period, calculate ratio of the stack gas flow rate to the sample flow rate using the following equation:

$$Rh = K \times Qh / Fh$$

Where:
Rh = Ratio of hourly stack gas flow rate to hourly sample flow rate
Qh = Average stack gas volumetric flow rate for the hour, adjusted for bias, if necessary, according to section 7.6.5 of **appendix A to 40 CFR part 75**, (scfh)
Fh = Average sample flow rate for the hour, in appropriate units (*e.g.,* liters/min, cc/min, dscm/min)

K = Power of ten multiplier, to keep the value of Rh between 1 and 100. The appropriate K value will depend on the selected units of measure for the sample flow rate and the range of expected stack gas flow rates.
Maintain the value of Rh within $\pm$ 25 percent of Rref throughout the data collection period.
(c) Calculation of Spike Recovery. Calculate the percent recovery of each section 3 spike, as follows:

%R = (M3/Ms) x 100

Where:
%R = Percentage recovery of the presampling spike
M3 = Mass of Hg recovered from section 3 of the sorbent trap, (µg)
Ms = Calculated Hg mass of the pre-sampling spike, from paragraph (7)(a)(B) of this rule, (µg)
(d) Calculation of Breakthrough. Calculate the percent breakthrough to the second section of the sorbent trap, as follows:

%B = (M2/M1) x 100

Where:
%B = Percent breakthrough
M2 = Mass of Hg recovered from section 2 of the sorbent trap, (µg)
M1 = Mass of Hg recovered from section 1 of the sorbent trap, (µg)
(e) Normalizing Measured Hg Mass for Section 3 Spike Recoveries. Based on the results of the spike recovery in subsection (12)(c) of this rule, normalize the Hg mass collected in sections 1 and 2 of the sorbent trap, as follows:

M* = ((M1+M2) x Ms) / M3

Where:
M* = Normalized total mass of Hg recovered from sections 1 and of the sorbent trap, (µg)
M1 = Mass of Hg recovered from section 1 of the sorbent trap, unadjusted, (µg)
M2 = Mass of Hg recovered from section 2 of the sorbent trap, unadjusted, (µg)
Ms = Calculated Hg mass of the pre-sampling spike, from paragraph (7)(a)(B) of this rule, (µg)
M3 = Mass of Hg recovered from section 3 of the sorbent trap, (µg)
(f) Calculation of Hg Concentration. Calculate the Hg concentration for each sorbent trap, using the following equation:

C = M* / Vt

Where:
C = Concentration of Hg for the collection period, (µg/dscm)
M* = Normalized total mass of Hg recovered from sections 1 and 2 of the sorbent trap, (µg)
Vt = Total volume of dry gas metered during the collection period, (dscm). For the purposes of this rule, standard temperature and pressure are defined as $20^{o}C$ and 760 mm Hg, respectively.

(g) Calculation of Paired Trap Agreement. Calculate the relative deviation (RD) between the Hg concentrations measured with the paired sorbent traps as follows:

$$RD = (|Ca - Cb| / (Ca + Cb)) \times 100$$

Where:
RD = Relative deviation between the Hg concentrations from traps ''a'' and ''b'' (percent)
Ca = Concentration of Hg for the collection period, for sorbent trap ''a'' (µg/dscm)
Cb = Concentration of Hg for the collection period, for sorbent trap ''b'' (µg/dscm)
(h) Calculation of Hg Mass Emissions. To calculate Hg mass emissions, follow the procedures in OAR 340-228-0619(1)(b). Use the average of the two Hg concentrations from the paired traps in the calculations, except as provided in OAR 340-228-0617(8) or in Table 2 to this division.
(13) Method Performance. These monitoring criteria and procedures have been applied to coal-fired utility boilers (including units with post-combustion emission controls), having vapor-phase Hg concentrations ranging from 0.03 µg/dscm to 100 µg/dscm.

Missing Data Procedure

340-228-0631
Standard Missing Data Procedures for Hg CEMS
(1) Once 720 quality assured monitor operating hours of Hg concentration data have been obtained following initial certification, the owner or operator must provide substitute data for Hg concentration in accordance with the procedures in **40 CFR 75.33(b)(1) through (b)(4)** ~~and Table 1 to this division~~, except that the term "Hg concentration" shall apply rather than "SO_2 concentration," the term "Hg concentration monitoring system" shall apply rather than "SO_2 pollutant concentration monitor," ~~and~~ the term "maximum potential Hg concentration," as defined in 340-228-0602(25) shall apply, rather than "maximum potential SO_2 concentration~~.~~", and the percent monitor data availability trigger conditions prescribed for Hg in Table 1 of this division shall apply rather than the trigger conditions prescribed for SO2.
(2) For a unit equipped ~~with a flue gas desulfurization (FGD) system that significantly reduces the concentration of Hg emitted to the atmosphere (including circulating fluidized bed units that use limestone injection), or for a unit equipped~~ with add-on Hg emission controls (e.g., carbon injection), the standard missing data procedures in section (1) of this rule may only be used for hours in which the ~~SO_2 or~~ Hg emission controls are documented to be operating properly, as described in OAR 340-228-0635(6). For any hour(s) in the missing data period for which this documentation is unavailable, the owner or operator must report, as applicable, the maximum potential Hg concentration, as defined in OAR 340-228-0602(25). In addition, under **40 CFR 75.64(c)**, the owner or operator must submit as part of each ~~electronic~~ quarterly report, a certification statement, verifying the proper operation of the ~~SO_2 or~~ Hg emission controls for each missing data period in which the procedures in section (1) of this rule are applied.
(3) For units with ~~FGD systems or~~ add-on Hg controls, when the percent monitor data availability is less than 80.0 percent and is greater than or equal to 70.0 percent, and a missing data period occurs, consistent with **40 CFR 75.34(a)(3)**, for each missing data hour in which the Hg emission controls are documented to be operating properly, the owner or operator may ~~petition to~~ report the maximum

controlled Hg concentration recorded in the previous 720 quality-assured monitor operating hours~~,~~ ~~consistent with **40 CFR 75.34(a)(3)**~~. In addition, when the percent monitor data availability is less than 70.0 percent and a missing data period occurs, consistent with **40 CFR 75.34(a)(5)**, for each missing data hour in which the Hg emission controls are documented to be operating properly, the owner or operator may report the greater of the maximum expected Hg concentration (MEC) or 1.25 times the maximum controlled Hg concentration recorded in the previous 720 quality-assured monitor operating hours. The MEC must be determined in accordance with OAR 340-228-0602(24).

340-228-0633
Missing Data Procedures for Sorbent Trap Monitoring Systems

(1) If a primary sorbent trap monitoring system has not been certified by the applicable compliance date specified under OAR 340-228-0609(2), and if the quality-assured Hg concentration data from a certified backup Hg monitoring system, reference method, or approved alternative monitoring system are unavailable, the owner or operator must report the maximum potential Hg concentration, as defined in OAR 340-228-0602(25), until the primary system is certified.
(2) For a certified sorbent trap system, a missing data period will occur ~~whenever~~in the following circumstances, unless quality-assured Hg concentration data from a certified backup Hg CEMS, sorbent trap system, reference method, or approved alternative monitoring system are available:
(a) A gas sample is not extracted from the stack during unit operation (*e.g.* during a monitoring system malfunction or when the system undergoes maintenance); or
(b) The results of the Hg analysis for the paired sorbent traps are missing or invalid (as determined using the quality assurance procedures in OAR 340-228-0627). The missing data period begins with the hour in which the paired sorbent traps for which the Hg analysis is missing or invalid were put into service. The missing data period ends at the first hour in which valid Hg concentration data are obtained with another pair of sorbent traps (i.e., the hour at which this pair of traps was placed in service), or with a certified backup Hg CEMS, reference method, or approved alternative monitoring system.
(3) Initial missing data procedures. Use the~~se~~ following missing data procedures until 720 hours of quality-assured Hg concentration data have been collected with the sorbent trap monitoring system(s), following initial certification. For each hour of the missing data period, the substitute data value for Hg concentration shall be the average Hg concentration from all valid sorbent trap analyses to date, including data from the initial certification test runs.
(4) Standard missing data procedures. Once 720 quality-assured hours of data have been obtained with the sorbent trap system(s), begin reporting the percent monitor data availability in accordance with **40 CFR 75.32** and switch from the initial missing data procedures in section (3) of this rule to the ~~following~~ standard missing data procedures in OAR 340-228-0631.~~:~~
~~(a) If the percent monitor data availability (PMA) is ≥ 90.0 percent, report the average Hg concentration for all valid sorbent trap analyses in the previous 12 months.~~
~~(b) If the PMA is ≥ 80.0 percent, but < 90.0 percent, report the 95th percentile Hg concentration obtained from all of the valid sorbent trap analyses in the previous 12 months.~~
~~(c) If the PMA is ≥ 70.0 percent, but < 80.0 percent, report the maximum Hg concentration obtained from all of the valid sorbent trap analyses in the previous 12 months.~~
~~(d) If the PMA is < 70.0 percent, report the maximum potential Hg concentration, as defined in OAR 340-228-0602(25).~~

~~(e) For the purposes of subsections (4)(a), (b), and (c) of this rule, if fewer than 12 months have elapsed since initial certification, use whatever valid sorbent trap analyses are available to determine the appropriate substitute data values.~~

(5) Notwithstanding the requirements of sections (3) and (4) of this rule, if the unit has add-on Hg emission controls, the owner or operator must report the maximum potential Hg concentration, as defined in 340-228-0602(25), for any hour(s) in the missing data period for which proper operation of the Hg emission controls is not documented according to OAR 340-228-0635(6).

(6) In cases where the owner or operator elects to use a primary Hg CEMS and a certified redundant (or non-redundant) backup sorbent trap monitoring system (or vice-versa), when both the primary and backup monitoring systems are out-of-service and quality-assured Hg concentration data from a temporary like-kind replacement analyzer, reference method, or approved alternative monitoring system are unavailable, the previous 720 quality-assured monitor operating hours reported in the quarterly report under OAR 340-228-0637(4) must be used for the required missing data lookback, irrespective of whether these data were recorded by the Hg CEMS, the sorbent trap system, a temporary like-kind replacement analyzer, a reference method, or an approved alternative monitoring system.

Recordkeeping and Reporting

340-228-0635
Recordkeeping

(1) General recordkeeping provisions. The owner or operator of any coal-fired electric generating unit must maintain for each coal-fired electric generating unit and each non-affected unit under OAR 340-228-0615(2)(b)(B) a file of all measurements, data, reports, and other required information at the source in a form suitable for inspection for at least 5 years from the date of each record. Except for the certification data required in **40 CFR 75.57(a)(4)** and the initial submission of the monitoring plan required in **40 CFR 75.57(a)(5)**, the data must be collected beginning with the earlier of the date of provisional certification or the compliance deadline in OAR 340-228-0609(2). The certification data required in **40 CFR 75.57(a)(4)** must be collected beginning with the date of the first certification test performed. The file must contain the following information:

(a) The information required in **40 CFR 75.57(a)(2), (a)(4), (a)(5), (a)(6), (b), (c)(2), (g)** (if applicable), **(h)**, and sections (4) or (5) of this rule (as applicable).

(b) For coal-fired electric generating units using Hg CEMS or sorbent trap monitoring systems, for each hour when the unit is operating, record the Hg mass emissions, calculated in accordance with OAR 340-228-0619.

(c) Heat input and Hg methodologies for the hour.

(d) Formulas from monitoring plan for total Hg mass emissions and heat input rate (if applicable); and

(e) Laboratory calibrations of the source sampling equipment. For sorbent trap monitoring systems, the laboratory analyses of all sorbent traps, and information documenting the results of all leak checks and other applicable quality control procedures.

(f) Unless otherwise provided, the owners and operators of the coal-fired electric generating unit must keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the Department.

(A) All emissions monitoring information, in accordance with OAR 340-228-0609 through 0637.

(B) Copies of all reports, compliance certifications, and other submissions.
(2) Certification, quality assurance, and quality control record provisions. The owner or operator of a coal-fired electric generating unit must maintain the information required in **40 CFR 75.59**, including the following:
(a) For each Hg monitor, the owner or operator must record the information in **40 CFR 75.59(a)(1)(i) through (xi)** for all daily and 7-day calibration error tests, all daily system integrity checks (Hg monitors, only), and all off-line calibration demonstrations, including any follow-up tests after corrective action.
(b) For each Hg concentration monitor, the owner or operator must record the information in **40 CFR 75.59(a)(3)(i) through (x)** for the initial and all subsequent linearity check(s) and 3-level system integrity checks (Hg monitors with converters, only), including any follow-up tests after corrective action.
(c) For each Hg concentration monitoring system or sorbent trap monitoring system, the owner or operator must record the information in **40 CFR 75.59(a)(5)(i) and (iii) through (vii)** for the initial and all subsequent relative accuracy test audits. The owner or operator must also record individual test run data from the relative accuracy test audit for the Hg concentration monitoring system or sorbent trap monitoring system, including the information in **40 CFR 75.59(a)(5)(ii)(A) through (M)**.
(d) For each Hg ~~emissions~~pollutant concentration monitor, the owner or operator must record the information in **40 CFR 75.59(a)(6)(i) through (xi)** for the cycle time test.
(e) For each relative accuracy test audit run using the ~~Method 29 or ASTM D3784-02~~ Ontario Hydro Method to determine Hg concentration:
(A) Percent CO_2 and O_2 in the stack gas, dry basis;
(B) Moisture content of the stack gas (percent H_2O);
(C) Average stack temperature (^oF);
(D)) Dry gas volume metered (dscm);
(E) Percent isokinetic;
(F) Particle-bound Hg collected by the filter, blank, and probe rinse (µg);
(G) Oxidized Hg collected by the KCl impingers (µg);
(H) Elemental Hg collected in the HNO_3/H_2O_2 impinger and in the $KMnO_4/H_2SO_4$ impingers (µg);
(I) Total Hg, including particle-bound Hg (µg); and
(J) Total Hg, excluding particle-bound Hg (µg).
(f) For each RATA run using Method 29 to determine Hg concentration:
(A) Percent CO_2 and O_2 in the stack gas, dry basis;
(B) Moisture content of the stack gas (percent H_2O);
(C) Average stack gas temperature (°F);
(D) Dry gas volume metered (dscm);
(E) Percent isokinetic;
(F) Particulate Hg collected in the front half of the sampling train, corrected for the front-half blank value (µg); and
(G) Total vapor phase Hg collected in the back half of the sampling train, corrected for the back-half blank value (µg).
(g~~f~~) When hardcopy relative accuracy test reports, certification reports, recertification reports, or semiannual or annual reports for Hg CEMS or sorbent trap monitoring systems are required or requested under **40 CFR 75.60(b)(6) or 75.63**, the reports must include, at a minimum, the elements in **40 CFR**

75.59(a)(9)(i) through (ix) (as applicable to the type(s) of test(s) performed). For sorbent trap monitoring systems, the report must include laboratory analyses of all sorbent traps, and information documenting the results of all leak checks and other applicable quality control procedures.
(h~~g~~) Except as otherwise provided in subsection (6)(a) of this rule, for units with add-on Hg emission controls, the owner or operator must keep the records in **40 CFR 75.59(c)(1) through (2)** on-site in the quality assurance/quality control plan.
(3) Monitoring plan recordkeeping provisions.
(a) General provisions. The owner or operator of a coal-fired electric generating unit must prepare and maintain a monitoring plan for each affected unit or group of units monitored at a common stack and each non coal-fired electric generating unit under OAR 340-228-0615(2)(b)(B). The monitoring plan must contain sufficient information on the continuous monitoring systems and the use of data derived from these systems to demonstrate that all the unit's Hg emissions are monitored and reported.
(b) Updates. Whenever the owner or operator makes a replacement, modification, or change in a certified continuous monitoring system or alternative monitoring system under **40 CFR part 75 subpart E**, including a change in the automated data acquisition and handling system or in the flue gas handling system, that affects information reported in the monitoring plan (*e.g.*, a change to a serial number for a component of a monitoring system), then the owner or operator must update the monitoring plan.
(c) Contents of the monitoring plan. Each monitoring plan must contain the information in **40 CFR 75.53(g~~e~~)(1)** in electronic format and the information in **40 CFR 75.53(g~~e~~)(2)** in hardcopy format.
(4) Hg emission record provisions (CEMS). The owner or operator must record for each hour the information required by this section for each affected unit using Hg CEMS in combination with flow rate, and (in certain cases) moisture, and diluent gas monitors, to determine Hg mass emissions and (if applicable) unit heat input.
(a) For Hg concentration during unit operation, as measured and reported from each certified primary monitor, certified back-up monitor, or other approved method of emissions determination:
(A) Component-system identification code, as provided in **40 CFR 75.53**;
(B) Date and hour;
(C) Hourly Hg concentration (μg/m3, rounded to the nearest tenth). For a particular pair of sorbent traps, this will be the flow-proportional average concentration for the data collection period;
(D) The bias-adjusted hourly average Hg concentration (μg/m3, rounded to the nearest ~~hundredth~~tenth) if a bias adjustment factor is required, as provided in OAR 340-228-0629(3);
(E) Method of determination for hourly Hg concentration using Codes 1–55 in ~~Table 4a of **40 CFR 75.57**~~Table 3 to this division; and
(F) The percent monitor data availability (to the nearest tenth of a percent), calculated pursuant to **40 CFR 75.32**.
(b) For flue gas moisture content during unit operation (if required), as measured and reported from each certified primary monitor, certified back-up monitor, or other approved method of emissions determination (except where a default moisture value is used in accordance with **40 CFR 75.11(b)** or approved under **40 CFR 75.66**):
(A) Component-system identification code, as provided in **40 CFR 75.53**;
(B) Date and hour;
(C) Hourly average moisture content of flue gas (percent, rounded to the nearest tenth). If the continuous moisture monitoring system consists of wet- and dry-basis oxygen analyzers, also record both the wet- and dry-basis oxygen hourly averages (in percent O_2, rounded to the nearest tenth);

(D) Percent monitor data availability (recorded to the nearest tenth of a percent) for the moisture monitoring system, calculated pursuant to **40 CFR 75.32**; and
(E) Method of determination for hourly average moisture percentage, using Codes 1–55 in ~~Table 4a of **40 CFR 75.57**~~Table 3 to this division.
(c) For diluent gas (O_2 or CO_2) concentration during unit operation (if required), as measured and reported from each certified primary monitor, certified back-up monitor, or other approved method of emissions determination:
(A) Component-system identification code, as provided in **40 CFR 75.53**;
(B) Date and hour;
(C) Hourly average diluent gas (O_2 or CO_2) concentration (in percent, rounded to the nearest tenth);
(D) Method of determination code for diluent gas (O_2 or CO_2) concentration data using Codes 1–55, in ~~Table 4a of **40 CFR 75.57**~~Table 3 to this division; and
(E) The percent monitor data availability (to the nearest tenth of a percent) for the O_2 or CO_2 monitoring system (if a separate O_2 or CO_2 monitoring system is used for heat input determination), calculated pursuant to **40 CFR 75.32**.
(d) For stack gas volumetric flow rate during unit operation, as measured and reported from each certified primary monitor, certified back-up monitor, or other approved method of emissions determination, record the information required under paragraphs **40 CFR 75.57(c)(2)(i) through (c)(2)(vi)**.
(e) For Hg mass emissions during unit operation, as measured and reported from the certified primary monitoring system(s), certified redundant or nonredundant back-up monitoring system(s), or other approved method(s) of emissions determination:
(A) Date and hour;
(B) Hourly Hg mass emissions (pounds, rounded to three decimal places);
(C) Hourly Hg mass emissions (pounds, rounded to three decimal places), adjusted for bias if a bias adjustment factor is required, as provided in OAR 340-228-0629(3); and
(D) Identification code for emissions formula used to derive hourly Hg mass emissions from Hg concentration, flow rate and moisture data, as provided in **40 CFR 75.53**.
(5) Hg emission record provisions (sorbent trap systems). For the sorbent traps used in sorbent trap monitoring systems to quantify Hg concentration (including sorbent traps used for relative accuracy testing), the owner or operator must record for each hour the information required by this section.
(a) For Hg concentration during unit operation, as measured and reported from each certified primary monitor, certified back-up monitor, or other approved method of emissions determination:
(A) Component-system identification code, as provided in **40 CFR 75.53**;
(B) The ID number of the monitoring system in which each sorbent trap was used to collect Hg;
(C) The unique identification number of each sorbent trap;
(D) The beginning and ending dates and hours of the data collection period for each sorbent trap;
(E) Hourly Hg concentration (μg/dscm, rounded to the nearest tenth). For a particular pair of sorbent traps, this will be the flow-proportional average concentration for the data collection period;
(F) The bias-adjusted hourly average Hg concentration (μg/dscm, rounded to the nearest tenth) if a bias adjustment factor is required, as provided in OAR 340-228-0629(3);
(G) Method of determination for hourly average Hg concentration using Codes 1–55 in ~~Table 4a of **40 CFR 75.57**~~Table 3 to this division; and

(H) Percent monitor data availability (recorded to the nearest tenth of a percent), calculated pursuant to **40 CFR 75.32**.
(b) For flue gas moisture content during unit operation, as measured and reported from each certified primary monitor, certified back-up monitor, or other approved method of emissions determination (except where a default moisture value is used in accordance with **40 CFR 75.11(b)** or approved under **40 CFR 75.66**), record the information required under paragraphs (4)(b)(A) through (E) of this rule.
(c) For diluent gas (O_2 or CO_2) concentration during unit operation (if required for heat input determination), record the information required under paragraphs (4)(c)(A) through (E) of this rule.
(d) For stack gas volumetric flow rate during unit operation, as measured and reported from each certified primary monitor, certified back-up monitor, or other approved method of emissions determination, record the information required under **40 CFR 75.57(c)(2)(i) through (c)(2)(vi)**.
(e) For Hg mass emissions during unit operation, as measured and reported from the certified primary monitoring system(s), certified redundant or nonredundant back-up monitoring system(s), or other approved method(s) of emissions determination, record the information required under subsection (4)(e) of this rule.
(f) Record the average flow rate of stack gas through each sorbent trap (in appropriate units, *e.g.*, liters/min, cc/min, dscm/min).
(g) Record the dry gas meter reading (in dscm, rounded to the nearest hundredth), at the beginning and end of the collection period and at least once in each unit operating hour during the collection period.
(h) Calculate and record the ratio of the bias-adjusted stack gas flow rate to the sample flow rate, as described in OAR 340-228-0627(11)(b).
(i) Information documenting the results of the required leak checks;
(j) The analysis of the Hg collected by each sorbent trap; and
(k) Information documenting the results of the other applicable quality control procedures in OAR 340-228-0617, 0623, and 0627.
(6) General recordkeeping provisions for specific situations. Except as otherwise provided in **40 CFR 75.34(d)**, the owner or operator must record:
(a) Parametric data which demonstrate, for each hour of missing Hg emission data, the proper operation of the add-on emission controls, as described in the quality assurance/quality control program for the unit. The parametric data must be maintained on site and must be submitted, upon request, to the Department.
(b) A flag indicating, for each hour of missing Hg emission data, either that the add-on emission controls are operating properly, as evidenced by all parameters being within the ranges specified in the quality assurance/quality control program, or that the add-on emission controls are not operating properly.

340-228-0637
Reporting
(1) General reporting provisions.
(a) The owner or operator of an affected unit must comply with all reporting requirements in this section.
(b) The owner or operator of an affected unit must submit the following for each affected unit or group of units monitored at a common stack and each non-affected unit under OAR 340-228-0615(2)(b)(B):
(A) Initial certification and recertification applications in accordance with OAR 340-228-0621;
(B) Monitoring plans in accordance with section (2) of this rule; and

(C) Quarterly reports in accordance with section (4) of this rule.
(c) Quality assurance RATA reports. If requested by the Department, the owner or operator of an affected unit must submit the quality assurance RATA report for each affected unit or group of units monitored at a common stack and each non-affected unit under OAR 340-228-0615(2)(b)(B) by the later of 45 days after completing a quality assurance RATA or 15 days of receiving the request. The owner or operator must report the hardcopy information required by **40 CFR 75.59(a)(9)** and OAR 340-228-0635(2)(f) to the Department.
(d) Notifications. The owner or operator of an affected unit must submit written notice to the Department according to the provisions in **40 CFR 75.61** for each affected unit or group of units monitored at a common stack and each non-affected unit under OAR 340-228-0615(2)(b)(B).
(2) Monitoring plans. The owner or operator of a coal-fired electric generating unit must comply with the applicable requirements of subsections (2)(a) and (b) of this rule and **40 CFR 63.7521(b)**.
(a) The owner or operator of an affected unit must submit to the Department a complete, up-to-date monitoring plan file for each affected unit or group of units monitored at a common stack and each non-affected unit under OAR 340-228-0615(2)(b)(B), as follows: No later than ~~45~~21 days prior to the commencement of initial certification testing; at the time of a certification or recertification application submission; and whenever an update of the monitoring plan is required, under **40 CFR 75.53**. In addition the information in **40 CFR 75.53(e)(1)**, the plan must include the type(s) of emission controls for Hg installed or to be installed, including specifications of whether such controls are pre-combustion, post-combustion, or integral to the combustion process; control equipment code, installation date, and optimization date; control equipment retirement date (if applicable); primary/secondary controls indicator; and an indicator for whether the controls are an original installation.
(b) The owner or operator of an affected unit must submit all of the information required under **40 CFR 75.53**, for each affected unit or group of units monitored at a common stack and each non-affected unit under OAR 340-228-0615(2)(b)(B), to the Department prior to initial certification. Thereafter, the owner or operator must submit information only if that portion of the monitoring plan is revised. The owner or operator must submit the required information as follows: no later than ~~45~~21 days prior to the commencement of initial certification testing; with any certification or recertification application, if a monitoring plan change is associated with the recertification event; and within 30 days of any other event with which a monitoring plan change is associated, pursuant to **40 CFR 75.53(b)**.
(3) Certification applications. The owner or operator must submit an application to the Department within 45 days after completing all initial certification or recertification tests required under OAR 340-228-0621, including the information required under **40 CFR 75.63**.
(4) Quarterly reports. The owner or operator must submit quarterly reports, as follows:
(a) Submission. Quarterly reports must be submitted, beginning with the calendar quarter containing the compliance date in OAR 340-228-0609(2). The owner or operator must report the data and information in this subsection and the applicable compliance certification information in subsection (4)(b) of this rule to the Department quarterly. Each report must be submitted to the Department within 30 days following the end of each calendar quarter. Each report must include the date of report generation and the following information for each affected unit or group of units monitored at a common stack.
(A) The facility information in **40 CFR 75.64(a)(~~1~~3)**; and
(B) The information and hourly data required in OAR 340-228-0635(1) and (2), except for:
(i) Descriptions of adjustments, corrective action, and maintenance;
(ii) Other information such as field data sheets, lab analyses, quality control plan;

(iii) For units with add-on Hg emission controls, the parametric information in OAR 340-228-0635(6);
(iv) Information required by **40 CFR 75.57(h)** concerning the causes of any missing data periods and the actions taken to cure such causes;
(v) Hardcopy monitoring plan information required by **40 CFR 75.53**, OAR 340-228-0637(2), and hardcopy test data and results required by **40 CFR 75.59** and OAR 340-228-0635(2);
(vi) Records of flow polynomial equations and numerical values required by **40 CFR 75.59(a)(5)(vi)**;
(vii) Stratification test results required as part of RATAs;
(viii) Data and results of RATAs that are aborted or invalidated due to problems with the reference method or operational problems with the unit and data and results of linearity checks that are aborted or invalidated due to operational problems with the unit;
(ix) Supplementary RATA information required under **40 CFR 75.59(a)(7)** and OAR 340-228-0635(2)(e), except that:
(I) ~~t~~The applicable data elements under **40 CFR 75.59(a)(7)(ii)(A) through (T)** and ~~the data~~ under **40 CFR 75.59(a)(7)(iii)(A) through (M)** must~~, as applicable,~~ be reported for flow RATAs at circular or rectangular stacks (or ducts) in which angular compensation ~~(measurement of~~ for pitch and/or yaw angles~~)~~ is used (i.e. Method 2F and 2G in **appendixes A-1 and A-2 to 40 CFR part 60**), with or without ~~and for flow RATAs in which a site-specific~~ wall effects adjustment~~s factor is determined by direct measurement; and the data under **40 CFR 75.59(a)(7)(ii)(T)** must be reported for all flow RATAs in which a default wall effects adjustment factor is applied~~; ~~and~~
(II) The applicable data elements under **40 CFR 75.59(a)(7)(ii)(A) through (T)** and under **40 CFR 75.59(a)(7)(iii)(A) through (M)** must be reported for any flow RATA run at a circular stack in which Method 2 in **appendices A–1 and A–2 to 40 CFR part 60** is used and a wall effects adjustment factor is determined by direct measurement;
(III) The data under **40 CFR 75.59(a)(7)(ii)(T)** must be reported for all flow RATAs at circular stacks in which Method 2 in **appendices A–1 and A–2 to 40 CFR part 60** is used and a default wall effects adjustment factor is applied; and
(IV) The data under **40 CFR 75.59(a)(7)(ix)(A) through (F)** must be reported for all flow RATAs at rectangular stacks or ducts in which Method 2 in **appendices A–1 and A–2 to 40 CFR part 60** is used and a wall effects adjustment factor is applied.
(x) For units using sorbent trap monitoring systems, the hourly dry gas meter readings taken between the initial and final meter readings for the data collection period;
(C) Pounds of Hg emitted during quarter and cumulative pounds of Hg emitted in the year-to-date (rounded to the nearest thousandth);
(D) Reporting data.
(i) The owner or operator of a coal-fired electric generating unit that does not meet the applicable compliance date set forth in OAR 340-228-0609(2) for any monitoring system under OAR 340-228-0609(1)(a) must, for each monitoring system, determine, record, and report maximum potential (or, as appropriate, minimum potential) values for heat input, inlet Hg, and any other parameters required to determine heat input and Hg inlet.
(ii) On and after January 1, 2018, the owner or operator of a coal-fired electric generating unit must submit monthly and 12-month rolling average mercury emissions per trillion Btu of energy input and/or mercury capture efficiency, for each month in the calendar quarter.
(E) Unit or stack operating hours for quarter, cumulative unit or stack operating hours for year-to-date; and

(F) Reporting period heat input (if applicable) and cumulative, year-to-date heat input.
(b) Compliance certification.
(A) The owner or operator must certify that the monitoring plan information in each quarterly report (*i.e.*, component and system identification codes, formulas, etc.) represent current operating conditions for the affected unit(s)
(B) The owner or operator must submit and sign a compliance certification in support of each quarterly emissions monitoring report based on reasonable inquiry of those persons with primary responsibility for ensuring that all of the unit's emissions are correctly and fully monitored. The certification must state that:
(i) The monitoring data submitted were recorded in accordance with the applicable requirements of OAR 340-228-0609 through 0637 and **40 CFR part 75**, including the quality assurance procedures and specifications; and
(ii) With regard to a unit with add-on Hg emission controls, that for all hours where data are substituted in accordance with OAR 340-228-0631(2), the add-on emission controls were operating within the range of parameters listed in the quality assurance plan for the unit, and that the substitute values do not systematically underestimate Hg emissions.
(5) Reporting data prior to initial certification. If, by the applicable compliance date under OAR 340-228-0609(2), the owner or operator of a coal-fired electric generating unit has not successfully completed all required certification tests for any monitoring system(s), he or she must determine, record and report hourly data prior to initial certification using one of the following procedures, for the monitoring system(s) that are uncertified:
(a) For Hg concentration and flow monitoring systems, report the maximum potential Hg concentration of Hg as defined in OAR 340-228-0602(25) and the maximum potential flow rate, as defined in section 2.1.4.1 of **appendix A to 40 CFR part 75**; or
(b) For any unit, report data from the reference methods in OAR 340-228-0602(33) or in **40 CFR 75.22**; or
(c) For any unit that is required to report heat input, report (as applicable) the maximum potential flow rate, as defined in section 2.1.4.1 of **appendix A** to **40 CFR part 75**, the maximum potential CO_2 concentration, as defined in section 2.1.3.1 of **appendix A** to **40 CFR part 75**, the minimum potential O_2 concentration, as defined in section 2.1.3.2 of **appendix A** to **40 CFR part 75**, and the minimum potential percent moisture, as defined in section 2.1.5 of **appendix A** to **40 CFR part 75**.

DIVISION 230

INCINERATOR REGULATIONS

Municipal Waste Combustors

340-230-0310
Emissions Limitations
No person may cause, suffer, allow, or permit the operation of any affected municipal waste combustor unit in a manner that violates the following emission limits and requirements:

(1) Before April 28, 2009, particulate matter emissions from each unit must not exceed 27 milligrams per dry standard cubic meter (0.012 grains per dry standard cubic foot) corrected to 7 percent oxygen. On and after April 28, 2009, particulate matter emissions from each unit must not exceed 25 milligrams per dry standard cubic meter (0.011 grains per dry standard cubic foot) corrected to 7 percent oxygen.
(2) Opacity. The emission limit for opacity exhibited by the gases discharged to the atmosphere from a designated facility must not exceed 10 percent opacity as a 6-minute average.
(3) Municipal Waste Combustor Metals:
(a) Before April 28, 2009, cadmium emissions from each unit must not exceed 0.040 milligrams per dry standard cubic meter (0.000018 gr/dscf) corrected to 7 percent oxygen. On and after April 28, 2009, cadmium emissions from each unit must not exceed 0.020~~18~~ milligrams per dry standard cubic meter (0.000008 gr/dscf) corrected to 7 percent oxygen.
(b) Before April 28, 2009, lead emissions from each unit must not exceed 0.44 milligrams per dry standard cubic meter (0.00020 gr/dscf) corrected to 7 percent oxygen. On and after April 28, 2009, lead emissions from each unit must not exceed 0.20 milligrams per dry standard cubic meter (0.00009 gr/dscf) corrected to 7 percent oxygen.
(c) Before April 28, 2009, mercury emissions from each unit must not exceed 0.080 milligrams per dry standard cubic meter (0.000035 gr/dscf) or 15 percent of the potential mercury emission concentration (an 85-percent reduction by weight), corrected to 7 percent oxygen, whichever is less stringent. On and after April 28, 2009, mercury emissions from each unit must not exceed 0.050 milligrams per dry standard cubic meter (0.000022 gr/dscf) or 15 percent of the potential mercury emission concentration (an 85-percent reduction by weight), corrected to 7 percent oxygen, whichever is less stringent.
(4) Sulfur dioxide (SO_2) emissions from each unit must not exceed 29 parts per million by volume or 25 percent of the potential sulfur dioxide emission concentration (75-percent reduction by weight or volume), corrected to 7 percent oxygen (dry basis), whichever is less stringent. Compliance with this emission limit is based on a 24-hour daily geometric mean.
(5) Hydrogen chloride (HCl) emissions from each unit must not exceed 29 parts per million by volume or 5 percent of the potential hydrogen chloride emission concentration (95-percent reduction by weight or volume), corrected to 7 percent oxygen (dry basis), whichever is less stringent.
(6) The dioxin/furan emissions from each unit must not exceed:
(a) Before April 28, 2009, 60 nanograms per dry standard cubic meter (total mass), corrected to 7 percent oxygen, for a municipal waste combustor unit that employs an electrostatic precipitator-based emission control system;
(b) On and after April 28, 2009, 35 nanograms per dry standard cubic meter (total mass), corrected to 7 percent oxygen, for a municipal waste combustor unit that employs an electrostatic precipitator-based emission control system;
(c) Before April 28, 2009, 30 nanograms per dry standard cubic meter (total mass), corrected to 7 percent oxygen, for a municipal waste combustor unit that does not employ an electrostatic precipitator-based emission control system. On and after April 28, 2009, 15 nanograms per dry standard cubic meter (total mass), corrected to 7 percent oxygen, for a municipal waste combustor unit that does not employ an electrostatic precipitator-based emission control system.
(7) Emissions of nitrogen oxides from each unit must not exceed 205 parts per million by volume on a dry basis corrected to 7 percent oxygen.
(8) Fugitive Emissions:

(a) No owner or operator may cause or allow visible emissions of combustion ash from an ash conveying system (including conveyor transfer points) in excess of 5 percent of the observation period (i.e., nine9 minutes per 3-hour period), as determined by **EPA Reference Method 22** observations, except as provided in subsections (b) and (c) of this section.
(b) The emission limit specified in subsection (a) of this section does not cover visible emissions discharged inside buildings or enclosures of ash conveying systems; however, the emission limit specified in subsection (a) of this section does cover visible emissions discharged to the atmosphere from buildings or enclosures of ash conveying systems.
(c) The provisions specified in subsection (a) of this section do not apply during maintenance and repair of ash conveying systems.
[Publications: Publications referenced are available from the agency.]
Stat. Auth.: ORS 468.020
Stats. Implemented: ORS 468A.025
Hist.: DEQ 27-1996, f. & cert. ef. 12-11-96; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-025-0960; DEQ 4-2003, f. & cert. ef. 2-06-03

340-230-0335
Standards for Municipal Waste Combustor Fugitive Ash Emissions
(1) No owner or operator of an affected facility shall cause to be discharged to the atmosphere visible emissions of combustion ash from an ash conveying system (including conveyor transfer points) in excess of 5 percent of the observation period (i.e., 9 minutes per 3-hour period), as determined by EPA Reference Method 22 observations as specified in OAR 340-230-0340(11), except as provided in sections (2) and (3) of this rule.
(2) The emission limit specified in section (1) of this rule does not cover visible emissions discharged inside buildings or enclosures of ash conveying systems; however, the emission limit specified in section (1) of this rule does cover visible emissions discharged to the atmosphere from buildings or enclosures of ash conveying systems.
(3) The provisions specified in section (1) of this rule do not apply during maintenance and repair of ash conveying systems.

340-230-0340
Monitoring and Testing
(1) The standards under OAR 340-230-0300~~10~~ through 0359 apply at all times except during periods of startup, shutdown, and malfunction. Duration of startup, shutdown, or malfunction periods are limited to 3 hours per occurrence, except as provided in subsection (1)(c) of this rule. During periods of startup, shutdown, or malfunction, monitoring data must be dismissed or excluded from compliance calculations, but must be recorded and reported in accordance with the provisions of OAR 340-230-0350(1)(f).
(a) The startup period commences when the affected facility begins the continuous burning of municipal solid waste and does not include any warmup period when the affected facility is combusting fossil fuel or other nonmunicipal solid waste fuel, and no municipal solid waste is being fed to the combustor.
(b) Continuous burning is the continuous, semicontinuous, or batch feeding of municipal solid waste for purposes of waste disposal, energy production, or providing heat to the combustion system in

preparation for waste disposal or energy production. The use of municipal solid waste solely to provide thermal protection of the grate or hearth during the startup period when municipal solid waste is not being fed to the grate is not considered to be continuous burning.
(c) For purposes of compliance with the carbon monoxide emissions limit in OAR 340-230-320(1), if a loss of boiler water level control (e.g., boiler waterwall tube failure) or a loss of combustion air control (e.g., loss of combustion air fan, induced draft fan, combustion grate bar failure) is determined to be a malfunction, the duration of the malfunction period is limited to 15 hours per occurrence. During such periods of malfunction, monitoring data must be dismissed or excluded from compliance calculations, but must be recorded and reported in accordance with the provisions of OAR 340-230-0350(1)(f).
(2) The owner or operator of an affected facility must install, calibrate, maintain, and operate a continuous emission monitoring system for measuring the oxygen or carbon dioxide content of the flue gas at each location where carbon monoxide, sulfur dioxide, or nitrogen oxides emissions, or particulate matter (if the owner or operator elects to continuously monitor emissions under section (13) of this rule) are monitored and record the output of the system and must comply with the test procedures and test methods specified in subsections (2)(a) through (g) of this rule.
(a) The span value of the oxygen (or carbon dioxide) monitor must be 25 percent oxygen (or 20 percent carbon dioxide).
(b) The monitor must be installed, evaluated, and operated in accordance with **40 CFR 60.13**.
(c) The monitor must conform to **Performance Specification 3** in **appendix B** of **40 CFR 60** except for section 2.3 (relative accuracy requirement).
(d) The quality assurance procedures of **Appendix F** of **40 CFR 60** except for section 5.1.1 (relative accuracy test audit) shall apply to the monitor.
(e) If carbon dioxide is selected for use in diluent corrections, the relationship between oxygen and carbon dioxide levels must be established during the initial performance test according to the following procedures and methods specified in paragraphs (2)(e)(A) through (D) of this rule. This relationship may be reestablished during subsequent performance compliance tests.
(A) The fuel factor equation in Method 3B must be used to determine the relationship between oxygen and carbon dioxide at a sampling location. **EPA Reference Method 3**, **3A**, **3B**, or as an alternative **ASME PTC-19-10-1981-Part 10**, as applicable, must be used to determine the oxygen concentration at the same location as the carbon dioxide monitor.
(B) Samples must be taken for at least 30 minutes in each hour.
(C) Each sample must represent a 1-hour average.
(D) A minimum of three runs must be performed.
(f) The relationship between carbon dioxide and oxygen concentrations that is established in accordance with subsection (2)(e) of this rule must be submitted to the Department as part of the annual performance test report if the relationship is reestablished during the annual performance test.
(g) During a loss of boiler water level control or loss of combustion air control malfunction period as specified in subsection (1)(c) of this rule, a diluent cap of 14 percent for oxygen or 5 percent for carbon dioxide may be used in the emissions calculations for sulfur dioxide and nitrogen oxides.
(3) Except as provided in subsection (3)(i) of this rule, the procedures and test methods specified in subsections (3)(a) through (j) of this rule must be used to determine compliance with the emission limits for particulate matter and opacity under OAR 340-230-0310(1) and (2).
(a) **EPA Reference Method 1** must be used to select sampling site and number of traverse points.

(b**) EPA Reference Method 3**, **3A** or **3B**, or as an alternative **ASME PTC-19-10-1981-Part 10**, as applicable, must be used for gas analysis.
(c) **EPA Reference Method 5** must be used for determining compliance with the particulate matter emission limit. The minimum sample volume must be 1.7 cubic meters (60 cubic feet). The probe and filter holder heating systems in the sample train must be set to provide a gas temperature no greater than 160°C (320°F). An oxygen or carbon dioxide measurement must be obtained simultaneously with each **EPA Reference Method 5** run.
(d) The owner or operator of an affected facility may request that compliance with the particulate matter emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility must be established as specified in subsection (2)(e) of this rule.
(e) As specified under 40 CFR 60.8, all performance tests must consist of at least three test runs. The average of the particulate matter emission concentrations from the three test runs is used to determine compliance.
(f) In accordance with subsections (3)(g) and (j) of this rule, **EPA Reference Method 9** must be used for determining compliance with the opacity limit except as provided under **40 CFR 60.11(e)**.
(g) The owner or operator of an affected facility must install, calibrate, maintain, and operate a continuous opacity monitoring system for measuring opacity and must follow the methods and procedures specified in paragraphs (3)(g)(A) through (C) of this rule.
(A) The output of the continuous opacity monitoring system must be recorded on a 6-minute average basis.
(B) The continuous opacity monitoring system must be installed, evaluated, and operated in accordance with 40 CFR 60.13.
(C) The continuous opacity monitoring system must conform to **Performance Specification 1** in **appendix B** of **40 CFR Part 60**.
(h) The owner or operator of an affected facility must conduct a performance test for particulate matter on a calendar year basis (no less than 9 calendar months and no more than 15 calendar months following the previous performance test; and must complete five performance tests in each 5-year calendar period).
(i) In place of particulate matter testing with **EPA Reference Method 5**, an owner or operator may elect to install, calibrate, maintain, and operate a continuous emission monitoring system for monitoring particulate matter emissions discharged to the atmosphere and record the output of the system. The owner or operator of an affected facility who elects to continuously monitor particulate matter emissions instead of conducting performance testing using **EPA Reference Method 5** must install, calibrate, maintain, and operate a continuous emission monitoring system and must comply with the requirements specified in paragraphs (3)(i)(A) through (N) of this rule. The owner or operator who elects to continuously monitor particulate matter emissions instead of conducting performance testing using **EPA Reference Method 5** is not required to complete performance testing for particulate matter as specified in subsection (3)(h) of this rule and is not required to continuously monitor opacity as specified in subsection (3)(g) of this rule.
(A) Notify the Administrator and the Department one month before starting use of the system.
(B) Notify the Administrator and the Department one month before stopping use of the system.
(C) The monitor must be installed, evaluated, and operated in accordance with **40 CFR 60.13**.

(D) The initial performance evaluation must be completed no later than 180 days of notification to the Administrator and the Department of use of the continuous monitoring system if the owner or operator was previously determining compliance by Method 5 performance tests, whichever is later.
(E) The owner or operator of an affected facility may request that compliance with the particulate matter emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility must be established as specified in subsection (2)(e) of this rule.
(F) The owner or operator of an affected facility must conduct an initial performance test for particulate matter emissions as required under **40 CFR 60.8**. Compliance with the particulate matter emission limit must be determined by using the continuous emission monitoring system specified in subsection (3)(i) of this rule to measure particulate matter and calculating a 24-hour block arithmetic average emission concentration using **EPA Reference Method 19**, **section 12.4.1**.
(G) Compliance with the particulate matter emission limit must be determined based on the 24-hour daily (block) average of the hourly arithmetic average emission concentrations using continuous emission monitoring system outlet data.
(H) At a minimum, valid continuous monitoring system hourly averages must be obtained as specified in subparagraphs (3)(i)(H)(i) and (ii) of this rule for at least 90 percent of the operating hours per calendar quarter and 95 percent of the operating hours per calendar year that the affected facility is combusting municipal solid waste.
(i) At least two data points per hour must be used to calculate each 1-hour arithmetic average.
(ii) Each particulate matter 1-hour arithmetic average must be corrected to 7 percent oxygen on an hourly basis using the 1-hour arithmetic average of the oxygen (or carbon dioxide) continuous emission monitoring system data.
(I) The 1-hour arithmetic averages required under paragraph (3)(i)(G) of this rule must be expressed in milligrams per dry standard cubic meter corrected to 7 percent oxygen (dry basis) and must be used to calculate the 24-hour daily arithmetic average emission concentrations. The 1-hour arithmetic averages must be calculated using the data points required under **40 CFR 60.13(e)(2)**.
(J) All valid continuous emission monitoring system data must be used in calculating average emission concentrations even if the minimum continuous emission monitoring system data requirements of paragraph (3)(i)(H) of this rule are not met.
(K) The continuous emission monitoring system must be operated according to **Performance Specification 11** in **40 CFR part 60 appendix B**.
(L) During each relative accuracy test run of the continuous emission monitoring system required by **Performance Specification 11** in **40 CFR part 60 appendix B**, particulate matter and oxygen (or carbon dioxide) data must be collected concurrently (or within a 30- to 60-minute period) by both the continuous emission monitors and the test methods specified in subparagraphs (3)(i)(L)(i) and (ii) of this rule.
(i) For particulate matter, **EPA Reference Method 5** must be used.
(ii) For oxygen (or carbon dioxide), **EPA Reference Method 3**, **3A**, or **3B**, as applicable must be used.
(M) Quarterly accuracy determinations and daily calibration drift tests must be performed in accordance with **Procedure 2** in **40 CFR part 60 appendix F**.
(N) When particulate matter emissions data are not obtained because of continuous emission monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, emissions data must be obtained by using other monitoring systems as approved by the Administrator or **EPA Reference**

Method 19 to provide, as necessary, valid emissions data for a minimum of 90 percent of the hours per calendar quarter and 95 percent of the hours per calendar year that the affected facility is operated and combusting municipal solid waste.

(j) For each affected facility, the owner or operator must conduct a performance test for opacity on an annual basis (no less than 9 calendar months and no more than 15 calendar months following the previous performance test; and must complete five performance tests in each 5-year calendar period) using the test method specified in subsection (3)(f) of this rule.

(4) The procedures and test methods specified in subsections (4)(a) and (b) of this rule must be used to determine compliance with the emission limits for cadmium, lead, and mercury under OAR 340-230-0310(3).

(a) The procedures and test methods specified in paragraphs (4)(a)(A) through (G) of this rule must be used to determine compliance with the emission limits for cadmium and lead under OAR 340-230-0310(3)(a) and (b).

(A) **EPA Reference Method 1** must be used for determining the location and number of sampling points.

(B) **EPA Reference Method 3**, **3A**, or **3B,** or as an alternative **ASME PTC-19-10-1981-Part 10**, as applicable, must be used for flue gas analysis.

(C) **EPA Reference Method 29** must be used for determining compliance with the cadmium and lead emission limits.

(D) An oxygen or carbon dioxide measurement must be obtained simultaneously with each **EPA Reference Method 29** test run for cadmium and lead required under paragraph (4)(a)(C) of this rule.

(E) The owner or operator of an affected facility may request that compliance with the cadmium or lead emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility must be established as specified in subsection (2)(e) of this rule.

(F) All performance tests must consist of at least three test runs conducted under representative full load operating conditions. The average of the cadmium and lead emission concentrations from three test runs or more must be used to determine compliance.

(G) The owner or operator of an affected facility must conduct a performance test for compliance with the emission limits for cadmium and lead on a calendar year basis (no less than 9 calendar months and no more than 15 calendar months following the previous performance test; and must complete five performance tests in each 5-year calendar period).

(b) The procedures and test methods specified in paragraphs (4)(b)(A) through (I) of this rule must be used to determine compliance with the mercury emission limit under OAR 340-230-0310(3)(c).

(A) **EPA Reference Method 1** must be used for determining the location and number of sampling points.

(B) **EPA Reference Method 3**, **3A**, or **3B**, or as an alternative **ASME PTC-19-10-1981-Part 10**, as applicable, must be used for flue gas analysis.

(C) **EPA Reference Method 29** or as an alternative **ASTM D6784-02** must be used to determine the mercury emission concentration. The minimum sample volume when using **EPA Reference Method 29** or as an alternative **ASTM D6784-02** for mercury is 1.7 cubic meters (60 cubic feet).

(D) An oxygen (or carbon dioxide) measurement must be obtained simultaneously with each **EPA Reference Method 29** or as an alternative **ASTM D6784-02** test run for mercury required under paragraph (4)(b)(C) of this rule.

(E) The percent reduction in the potential mercury emissions (%PHg) is computed using equation 1: [Equation not included. See ED. NOTE.]
(F) All performance tests must consist of a minimum of three test runs conducted under representative full load operating conditions. The average of the mercury emission concentrations or percent reductions from three test runs or more is used to determine compliance.
(G) The owner or operator of an affected source may request that compliance with the mercury emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility must be established as specified in subsection (2)(e) of this rule.
(H) The owner or operator of an affected facility must conduct a performance test for mercury emissions on a calendar year basis (no less than 9 calendar months and no more than 15 calendar months from the previous performance test; and must complete five performance tests in each 5-year calendar period).
(I) The owner or operator of an affected facility where activated carbon injection is used to comply with the mercury emission limit must follow the procedures specified in section (12) of this rule for measuring and calculating carbon usage.
(c) In place of cadmium and lead testing with **EPA Reference Method 29** or as an alternative **ASTM D6784-02**, an owner or operator may elect to install, calibrate, maintain, and operate a continuous emission monitoring system for monitoring cadmium and lead emissions discharged to the atmosphere and record the output of the system according to the provisions of sections (13) and (14) of this rule.
(d) In place of mercury testing with **EPA Reference Method 29** or as an alternative **ASTM D6784-02**, an owner or operator may elect to install, calibrate, maintain, and operate a continuous emission monitoring system or a continuous automated sampling system for monitoring mercury emissions discharged to the atmosphere and record the output of the system according to the provisions of sections (13) and (14) of this rule, or sections (15) and (16) of this rule, as appropriate. The owner or operator who elects to continuously monitor mercury in place of mercury testing with **EPA Reference Method 29** or as an alternative **ASTM D6784-02** is not required to complete performance testing for mercury as specified in paragraph (4)(b)(H) of this rule.
(5) The procedures and test methods specified in subsections (5)(a) through (l) of this rule must be used for determining compliance with the sulfur dioxide emission limit under OAR 340-230-0310(4).
(a) **EPA Reference Method 19**, section 4.3, must be used to calculate the daily geometric average sulfur dioxide emission concentration.
(b) **EPA Reference Method 19**, section 5.4, must be used to determine the daily geometric average percent reduction in the potential sulfur dioxide emission concentration.
(c) The owner or operator of an affected facility may request that compliance with the sulfur dioxide emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility must be established as specified in subsection (2)(e) of this rule.
(d) Compliance with the sulfur dioxide emission limit (concentration or percent reduction) must be determined by using the continuous emission monitoring system specified in subsection (5)(e) of this rule to measure sulfur dioxide and calculating 24-hour daily geometric average emission concentration or a 24-hour daily geometric average percent reduction using **EPA reference Method 19**, sections 4.3 and 5.4, as applicable.

(e) The owner or operator of an affected facility must install, evaluate, calibrate, maintain, and operate a continuous emission monitoring system for measuring sulfur dioxide emissions discharged to the atmosphere and record the output of the system in accordance with **40 CFR 60.13**.
(f) Compliance with the sulfur dioxide emission limit must be determined based on the 24-hour daily geometric average of the hourly arithmetic average emission concentrations using continuous emission monitoring system outlet data if compliance is based on an emission concentration, or continuous emission monitoring system inlet and outlet data if compliance is based on a percent reduction.
(g) At a minimum, valid continuous monitoring system hourly averages must be obtained as specified in paragraphs (5)(g)(A) and (B) of this rule for 90 percent of the operating hours per calendar quarter and 95 percent of the operating hours~~days~~ per calendar year that the affected facility is combusting municipal solid waste.
(A) At least two data points per hour must be used to calculate each 1-hour arithmetic average.
(B) Each sulfur dioxide 1-hour arithmetic average must be corrected to 7 percent oxygen on an hourly basis using the 1-hour arithmetic average of the oxygen (or carbon dioxide) continuous emission monitoring system data.
(h) The 1-hour arithmetic averages required under subsection (5)(f) of this rule must be expressed in parts per million corrected to 7 percent oxygen (dry basis) and used to calculate the 24-hour daily geometric average emission concentrations and daily geometric average emission percent reductions. The 1-hour arithmetic averages must be calculated using the data points required under **40 CFR 60.13(e)(2)**.
(i) All valid continuous emission monitoring system data must be used in calculating average emission concentrations and percent reductions even if the minimum continuous emission monitoring system data requirements of subsection (5)(g) of this rule are not met.
(j) The continuous emission monitoring system must be operated according to **Performance Specification 2** in **appendix B of 40 CFR 60**. For sources that have actual inlet emissions less than 100 parts per million dry volume, the relative accuracy criterion for inlet sulfur dioxide continuous emission monitoring systems should be no greater than 20 percent of the mean value of the reference method test data in terms of the units of the emission standard, or 5 parts per million dry volume absolute value of the mean difference between the reference method and the continuous emission monitoring systems, whichever is greater.
(A) During each relative accuracy test run of the continuous emission monitoring system required by **Performance Specification 2** in **appendix B** of **40 CFR 60**, sulfur dioxide and oxygen (or carbon dioxide) must be collected concurrently (or within a 30- to 60-minute period) by both the continuous emission monitors and the test methods specified in subparagraphs (5)(j)(A)(i) and (ii) of this rule.
(i) For sulfur dioxide, **EPA Reference Method 6**, **6A**, or **6C**, or as an alternative **ASME PTC-19-10-1981-Part 10**, must be used.
(ii) For oxygen (or carbon dioxide), **EPA Reference Method 3**, **3A**, or **3B**, or as an alternative **ASME PTC-19-10-1981-Part 10**, must be used.
(B) The span value of the continuous emissions monitoring system at the inlet to the sulfur dioxide control device must be 125 percent of the maximum estimated hourly potential sulfur dioxide emissions of the municipal waste combustor unit. The span value of the continuous emission monitoring system at the outlet of the sulfur dioxide control device must be 50 percent of the maximum estimated hourly potential sulfur dioxide emissions of the municipal waste combustor unit.

(k) Quarterly accuracy determinations and daily calibration tests must be performed in accordance with **Procedure 1** in **Appendix F** of **40 CFR 60**.
(l) When sulfur dioxide emissions data are not obtained because of continuous emission monitoring system breakdowns, repairs, calibration checks, and/or zero and span adjustments, emissions data must be obtained by using other monitoring systems as approved by the Department or **EPA Reference Method 19** to provide, as necessary, valid emissions data for a minimum of 90 percent of the hours per calendar quarter and 95 percent of the hours per calendar year that the affected facility is operated and combusting municipal solid waste.
(6) The procedures and test methods specified in subsections (6)(a) through (h) if this rule must be used for determining compliance with the hydrogen chloride emission limit under OAR 340-230-0310(5).
(a) **EPA Reference Method 26** or **26A**, as applicable, must be used to determine the hydrogen chloride emission concentration. The minimum sampling time for must be 1 hour.
(b) An oxygen (or carbon dioxide) measurement must be obtained simultaneously with each test run for hydrogen chloride required by subsection (6)(a) of this rule.
(c) The percent reduction in potential hydrogen chloride emissions (% PHCl) is computed using equation 2: [Equation not included. See ED. NOTE.]
(d) The owner or operator of an affected facility may request that compliance with the hydrogen chloride emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility must be established as specified in subsection (2)(e) of this rule.
(e) As specified under **40 CFR 60.8**, all performance tests must consist of three test runs. The average of the hydrogen chloride emission concentrations from the three test runs is used to determine compliance.
(f) The owner or operator of an affected facility must conduct a performance test for hydrogen chloride emissions on a calendar year basis (no less than 9 calendar months and no more than 15 calendar months following the previous performance test; and must complete five performance tests in each 5-year calendar period).
(g) In place of hydrogen chloride testing with **EPA Reference Method 26 or 26A**, an owner or operator may elect to install, calibrate, maintain, and operate a continuous emission monitoring system for monitoring hydrogen chloride emissions discharged to the atmosphere and record the output of the system according to the provisions of sections (13) and (14) of this rule.
(7) The procedures and test methods specified in subsections (7)(a) through (h) of this rule must be used to determine compliance with the limits for dioxin/furan emissions under OAR 340-230-0310(6).
(a) **EPA Reference Method 1** must be used for determining the location and number of sampling points.
(b) **EPA Reference Method 3**, **3A**, or **3B**, or as an alternative **ASME PTC-19-10-1981-Part 10**, as applicable, must be used for flue gas analysis.
(c) **EPA Reference Method 23** must be used for determining the dioxin/furan emission concentration.
(A) The minimum sample time must be 4 hours per test run.
(B) An oxygen (or carbon dioxide) measurement must be obtained simultaneously with each **EPA Reference Method 23** test run for dioxins/furans.
(d) The owner or operator of an affected facility must conduct performance tests for dioxin/furan emissions in accordance with subsection (7)(c) of this rule, according to one of the schedules specified in paragraphs (7)(d)(A) through (C) of this rule.

(A) Performance tests must be conducted on a calendar year basis (no less than 9 calendar months and no more than 15 calendar months following the previous performance test; and must complete five performance tests in each 5-year calendar period).
(B) For the purpose of evaluating system performance to establish new operating parameter levels, testing new technology or control technologies, diagnostic testing, or related activities for the purpose of improving facility performance or advancing the state-of-the-art for controlling facility emissions, the owner or operator of an affected facility that qualifies for the performance testing schedule specified in paragraph (7)(d)(C) of this rule, may test one unit for dioxin/furan and apply the dioxin/furan operating parameters to similarly designed and equipped units on site by meeting the requirements specified in subparagraphs (7)(d)(B)(i) through (iv) of this rule.
(i) Follow the testing schedule established in paragraph (7)(d)(C) of this rule. For example, each year a different affected facility at the municipal waste combustor plant must be tested, and the affected facilities at the plant must be tested in sequence (e.g., unit 1, unit 2, unit 3, as applicable).
(ii) Where such units use carbon to meet the applicable dioxin/furan emission limit, ~~U~~upon meeting the requirements in paragraph (7)(d)(C) of this rule for one affected facility, the owner or operator may elect to apply the average carbon mass feed rate and associated carbon injection system operating parameter levels for dioxin/furan as established in section (13) of this rule to similarly designed and equipped units on site.
(iii) Upon testing each subsequent unit in accordance with the testing schedule established in paragraph (7)(d)(C) of this rule, the dioxin/furan and mercury emissions of the subsequent unit must not exceed the dioxin/furan and mercury emissions measured in the most recent test of that unit prior to the revised operating parameter levels.
(iv) The owner or operator of an affected facility that selects to follow the performance testing schedule specified in paragraph (7)(d)(C) of this rule and apply the carbon injection system operating parameters to similarly designed and equipped units on site must follow the procedures specified in OAR 340-230-0350(3)(d) for reporting.
(C) Where all performance tests over a 2-year period indicate that dioxin/furan emissions are less than or equal to 7 nanograms per dry standard cubic meter (total mass) for all affected facilities located within a municipal waste combustor plant, the owner or operator of the municipal waste combustor plant may elect to conduct annual performance tests for one affected facility (i.e., unit) per year at the municipal waste combustor plant. At a minimum, a performance test for dioxin/furan emissions must be conducted on a calendar year basis (no ~~more~~less than 9 calendar months and no more than 15 months following the previous performance test; and must complete five performance tests in each 5-year calendar period) for one affected facility at the municipal waste combustor plant. Each year a different affected facility at the municipal waste combustor plant must be tested, and the affected facilities at the plant must be tested in sequence (e.g., unit 1, unit 2, unit 3, as applicable). If each annual performance test continues to indicate a dioxin/furan emission level less than or equal to 7 nanograms per dry standard cubic meter (total mass), the owner or operator may continue conducting a performance test on only one affected facility per year. If any annual performance test indicates either a dioxin/furan emission level greater than 7 nanograms per dry standard cubic meter (total mass), performance tests thereafter must be conducted annually on all affected facilities at the plant until and unless all annual performance tests for all affected facilities at the plant over a 2-year period indicate a dioxin/furan emission level less than or equal to 7 nanograms per dry standard cubic meter (total mass).

(e) The owner or operator of an affected facility that selects to follow the performance testing schedule specified in paragraph (7)(d)(C) of this rule must follow the procedures specified in OAR 340-230-0350(3)(d) for reporting the selection of this schedule.
(f) The owner or operator of an affected facility where activated carbon is used must follow the procedures specified in section (12) of this rule for measuring and calculating the carbon usage rate.
(g) The owner or operator of an affected facility may request that compliance with the dioxin/furan emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility must be established as specified in subsection (2)(e) of this rule.
(h) As specified under **40 CFR 60.8**, all performance tests must consist of three test runs. The average of the dioxin/furan emission concentrations from the three test runs is used to determine compliance.
(i) In place of dioxin/furan sampling and testing with **EPA Reference Method 23**, an owner or operator may elect to sample dioxin/furan by installing, calibrating, maintaining, and operating a continuous automated sampling system for monitoring dioxin/furan emissions discharged to the atmosphere, recording the output of the system, and analyzing the sample using **EPA Reference Method 23**. This option to use a continuous automated sampling system takes effect on the date a final performance specification applicable to dioxin/furan from monitors is published in the Federal Register or the date of approval of a site-specific monitoring plan. The owner or operator of an affected facility who elects to continuously sample dioxin/furan emissions instead of sampling and testing using **EPA Reference Method 23** must install, calibrate, maintain, and operate a continuous automated sampling system and must comply with the requirements specified in sections (15) and (16) of this rule.
(8) The procedures and test methods specified in subsections (8)(a) through (i) of this rule must be used to determine compliance with the nitrogen oxides emission limit for affected facilities.
(a) Compliance with the nitrogen oxides emission limit must be determined by using the continuous emission monitoring system specified in subsection (8)(c) of this rule for measuring nitrogen oxides and calculating a 24-hour daily arithmetic average emission concentration using **EPA Reference Method 19**, **section 4.1**.
(b) An owner or operator may request that compliance with the nitrogen oxides emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility must be established as specified in subsection (2)(e) of this rule.
(c) The owner or operator of an affected facility must install, calibrate, maintain, and operate a continuous emission monitoring system for measuring nitrogen oxides discharged to the atmosphere, and record the output of the system.
(d) At a minimum, valid continuous emission monitoring system hourly averages must be obtained as specified in paragraphs (8)(d)(A) and (B) of this rule for 90 percent of the operating hours per calendar quarter and for 95 percent of the operating hours per calendar year that the affected facility is combusting municipal solid waste.
(A) At least 2 data points per hour must be used to calculate each 1-hour arithmetic average.
(B) Each nitrogen oxides 1-hour arithmetic average must be corrected to 7 percent oxygen on an hourly basis using the 1-hour arithmetic average of the oxygen (or carbon dioxide) continuous emission monitoring system data.

(e) The 1-hour arithmetic averages must be expressed in parts per million by volume (dry basis) and used to calculate the 24-hour daily arithmetic average concentrations. The 1-hour arithmetic averages must be calculated using the data points required under 40 CFR 60.13(e)(2).
(f) All valid continuous emission monitoring system data must be used in calculating emission averages even if the minimum continuous emission monitoring system data requirements of subsection (8)(d) of this rule are not met.
(g) The owner or operator of an affected facility must operate the continuous emission monitoring system according to **Performance Specification 2** in **Appendix B** of **40 CFR 60** and must follow the procedures and methods specified in paragraphs (8)(g)(A) and (B) of this rule.
(A) During each relative accuracy test run of the continuous emission monitoring system required by **Performance Specification 2** in **Appendix B** of **40 CFR 60**, nitrogen oxides and oxygen (or carbon dioxide) must be collected concurrently (or within a 30- to 60-minute period) by both the continuous emission monitors and the test methods specified in subparagraphs (8)(g)(A)(i) and (ii) of this rule.
(i) For nitrogen oxides, **EPA Reference Methods 7**, **7A**, **7C**, **7D**, or **7E** must be used.
(ii) For oxygen (or carbon dioxide), **EPA Reference Method 3**, **3A**, or **3B**, or as an alternative **ASME PTC-19-10-1981-Part 10**, as applicable, must be used.
(B) The span value of the continuous emission monitoring system must be 125 percent of the maximum estimated hourly potential nitrogen oxide emissions of the municipal waste combustor unit.
(h) Quarterly accuracy determinations and daily calibration drift tests must be performed in accordance with **Procedure 1** in **Appendix F of 40 CFR Part 60**.
(i) When nitrogen oxides continuous emissions data are not obtained because of continuous emission monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, emissions data must be obtained using other monitoring systems as approved by the Department or **EPA Reference Method 19** to provide, as necessary, valid emissions data for a minimum of 90 percent of the hours per calendar quarter and 95 percent of the hours per calendar year the unit is operated and combusting municipal solid waste.
(9) The procedures specified in subsections (9)(a) through (k) of this rule must be used for determining compliance with the operating requirements under OAR 340-230-0320.
(a) Compliance with the carbon monoxide emission limits in OAR 340-230-0320(1) must be determined using a 4-hour block arithmetic average.
(b) The owner or operator of an affected facility must install, calibrate, maintain, and operate a continuous emission monitoring system for measuring carbon monoxide at the combustor outlet and record the output of the system and must follow the procedures and methods specified in paragraphs (9)(a)(A) through (C) of this rule:
(A) The continuous emission monitoring system must be operated according to **Performance Specification 4A** in **Appendix B** of **40 CFR 60**.
(B) During each relative accuracy test run of the continuous emission monitoring system required by **Performance Specification 4A** in **Appendix B** of **40 CFR Part 60**, carbon monoxide and oxygen (or carbon dioxide) data must be collected concurrently (or within a 30- to 60-minute period) by both the continuous emission monitors and the test methods specified in subparagraphs (9)(b)(B)(i) and (ii) of this rule. For affected facilities subject to the 100 parts per million dry volume carbon monoxide standard, the relative accuracy criterion of 5 parts per million dry volume is calculated as the absolute value of the mean difference between the reference method and continuous emission monitoring systems.

(i) For carbon monoxide, **EPA Reference Methods 10**, **10A**, or **10B** must be used.
(ii) For oxygen (or carbon dioxide), **EPA Reference Method 3**, **3A**, or **3B**, or **ASME PTC-19-10-1981--Part 10** (incorporated by reference, see **40 CFR 60.17**), as applicable, must be used.
(C) The span value of the continuous emission monitoring system must be 125 percent of the maximum estimated hourly potential carbon monoxide emissions of the municipal waste combustor unit.
(c) The 4-hour block daily arithmetic averages specified in subsection (9)(a) of this rule must be calculated from 1-hour arithmetic averages expressed in parts per million by volume corrected to 7 percent oxygen (dry basis). The 1-hour arithmetic averages must be calculated using the data points generated by the continuous emission monitoring system. At least two data points must be used to calculate each 1-hour arithmetic average.
(d) The owner or operator of an affected facility may request that compliance with the carbon monoxide emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility must be established as specified in subsection (2)(e) of this rule.
(e) The procedures specified in paragraphs (9)(e)(A) through (D) of this rule must be used to determine compliance with load level requirements under OAR 340-230-0320(2).
(A) The owner or operator of an affected facility with steam generation capability must install, calibrate, maintain, and operate a steam flow meter or a feedwater flow meter; measure steam (or feedwater) flow in kilograms per hour (or pounds per hour) on a continuous basis; and record the output of the monitor. Steam (or feedwater) flow must be calculated in 4-hour block arithmetic averages.
(B) The method included in the "**American Society of Mechanical Engineers Power Test Codes: Test Code for Steam Generating Units, Power Test Code 4.1 -- 1964 (R1991)**" section 4 (incorporated by reference, see **40 CFR 60.17**) must be used for calculating the steam (or feedwater) flow required under paragraph (9)(c)(A) of this rule. The recommendations in "**American Society of Mechanical Engineers Interim Supplement 19.5 on Instruments and Apparatus: Application, Part II of Fluid Meters, 6th edition (1971)**," chapter 4 (incorporated by reference -- see **40 CFR 60.17**) must be followed for design, construction, installation, calibration, and use of nozzles and orifices except as specified in paragraph (9)(e)(C) of this rule:
(C) Measurement devices such as flow nozzles and orifices are not required to be recalibrated after they are installed.
(D) All signal conversion elements associated with steam (or feedwater flow) measurements must be calibrated according to the manufacturer's instructions before each dioxin/furan performance test, and at least once per year.
(f) To determine compliance with the maximum particulate matter control device temperature requirements under OAR 340-230-0320(3), the owner or operator of an affected facility must install, calibrate, maintain, and operate a device for measuring on a continuous basis the temperature of the flue gas stream at the inlet to each particulate matter control device utilized by the affected facility. Temperature must be calculated in 4-hour block arithmetic averages.
(g) The maximum demonstrated municipal waste combustor unit load must be determined during the initial performance test for dioxins/furans and each subsequent performance test during which compliance with the dioxin/furan emission limit specified in OAR 340-230-0310(6) is achieved. The maximum demonstrated municipal waste combustor unit load shall be the highest 4-hour arithmetic average load achieved during four consecutive hours during the most recent test during which compliance with the dioxin/furan emission limit was achieved. If a subsequent dioxin/furan performance

test is being performed on only one affected facility at the MWC plant, as provided in paragraph (7)(d)(C) of this rule, the owner or operator may elect to apply the same maximum municipal waste combustor unit load from the tested facility for all the similarly designed and operated affected facilities at the MWC plant.
(h) For each particulate matter control device employed at the affected facility, the maximum demonstrated particulate matter control device temperature must be determined during each performance test during which compliance with the dioxin/furan emission limit specified in OAR 340-230-0310(6) is achieved. The maximum demonstrated particulate matter control device temperature shall be the highest 4-hour arithmetic average temperature achieved at the particulate matter control device inlet during four consecutive hours during the most recent test during which compliance with the dioxin/furan limit was achieved. If a subsequent dioxin/furan performance test is being performed on only one affected facility at the MWC plant, as provided in paragraph (7)(d)(C) of this rule, the owner or operator may elect to apply the same maximum particulate matter control device temperature from the tested facility for all the similarly designed and operated affected facilities at the MWC plant.
(i) At a minimum, valid continuous emission monitoring system hourly averages must be obtained as specified in paragraphs (9)(i)(A) and (B) of this rule for at least 90 percent of the operating hours per calendar quarter and 95 percent of the operating hours per calendar year that the affected facility is combusting municipal solid waste.
(A) At least two data points per hour must be used to calculate each 1-hour arithmetic average.
(B) At a minimum, each carbon monoxide 1-hour arithmetic must be corrected to 7-percent oxygen on an hourly basis using the 1-hour arithmetic average of the oxygen (or carbon dioxide) continuous emission monitoring system data.
(j) All valid continuous emission monitoring system data must be used in calculating the parameters specified under section (9) of this rule even if the minimum data requirements of subsection (9)(i) of this rule are not met. When carbon monoxide continuous emission data are not obtained because of continuous emission monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, emissions data must be obtained using other monitoring systems as approved by the Department or **EPA Reference Method 10** to provide, as necessary, the minimum valid emission data.
(k) Quarterly accuracy determinations and daily calibration drift tests for the carbon monoxide continuous emission monitoring system must be performed in accordance with **Procedure 1** in **appendix F** of **40 CFR part 60**.
(10) The procedures specified in subsections (10)(a) an (b) of this rule must be used for calculating municipal waste combustor unit capacity as defined by **40 CFR 60.51b**.
(a) For municipal waste combustor units capable of combusting municipal solid waste continuously for a 24-hour period, municipal waste combustor unit capacity must be calculated based on 24 hours of operation at the maximum charging rate. The maximum charging rate must be determined as specified in paragraphs (10)(a)(A) and (B) of this rule, as applicable:
(A) For combustors that are designed based on heat capacity, the maximum charging rate must be calculated based on the maximum design heat input capacity of the unit and a heating value of 12,800 kilojoules per kilogram for combustors firing refuse-derived fuel and a heating value of 10,500 kilojoules per kilogram for combustors firing municipal solid waste that is not refuse-derived fuel.
(B) For combustors that are not designed based on heat capacity, the maximum charging rate shall be the maximum design charging rate.

(b) For batch feed municipal waste combustor units, municipal waste combustor unit capacity must be calculated as the maximum design amount of municipal solid waste that can be charged per batch multiplied by the maximum number of batches that could be processed in a 24-hour period. The maximum number of batches that could be processed in a 24-hour period is calculated as 24 hours divided by the design number of hours required to process one batch of municipal solid waste, and may include fractional batches (e.g., if one batch requires 16 hours, then 24/16, or 1.5 batches, could be combusted in a 24-hour period). For batch combustors that are designed based on heat capacity, the design heating value of 12,800 kilojoules per kilogram for combustors firing refuse-derived fuel and a heating value of 10,500 kilojoules per kilogram for combustors firing municipal solid waste that is not refuse-derived fuel must be used in calculating the municipal waste combustor unit capacity in megagrams per day of municipal solid waste.
(11) The procedures specified in subsections (11)(a) through (c) of this rule must be used for determining compliance with the fugitive ash emission limit under OAR 340-0230-0335.
(a) **EPA Reference Method 22** must be used for determining compliance with the fugitive ash emission limit under OAR 340-0230-0335. The minimum observation time must be a series of three 1-hour observations. The observation period must include times when the facility is transferring ash from the municipal waste combustor unit to the area where ash is stored or loaded into containers or trucks.
(b) The average duration of visible emissions per hour must be calculated from the three 1-hour observations. The average must be used to determine compliance with OAR 340-0230-0335.
(c) The owner or operator of an affected facility must conduct a performance test for fugitive ash emissions on a~~n annual~~ calendar year basis (no ~~more~~less than ~~12~~9 calendar months and no more than 15 months following the previous performance test; and must complete five performance tests in each 5-year period).
(12) The owner or operator of an affected facility where activated carbon injection is used to comply with the mercury emission limit under OAR 340-230-0310(3)(c), ~~and/or~~ the dioxin/furan emission limits under OAR 340-230-0310(6), or the dioxin/furan emission level specified in paragraph (7)(d)(C) of this rule must follow the procedures specified in subsections (12)(a) through (d) of this rule.
(a) During the performance tests for dioxins/furans and mercury, as applicable, the owner or operator must estimate an average carbon mass feed rate based on carbon injection system operating parameters such as the screw feeder speed, hopper volume, hopper refill frequency, or other parameters appropriate to the feed system being employed, as specified in paragraphs (12)(a)(A) and (B) of this rule.
(A) An average carbon mass feed rate in kilograms per hour or pounds per hour must be estimated during each performance test for mercury emissions.
(B) An average carbon mass feed rate in kilograms per hour or pounds per hour must be estimated during each performance test for dioxin/furan emissions, if applicable. If a subsequent dioxin/furan performance test is being performed on only one affected facility at the MWC plant, as provided in paragraph (7)(d)(C) of this rule, the owner or operator may elect to apply the same estimated average carbon mass feed rate from the tested facility for all the similarly designed and operated affected facilities at the MWC plant.
(b) During operation of the affected facility, the carbon injection system operating parameter(s) that are the primary indicator(s) of the carbon mass feed rate (e.g., screw feeder setting) must be averaged over a block 8-hour period, and the 8-hour average must equal or exceed the level(s) documented during the performance tests specified under paragraphs (12)(a)(A) and (B) of this rule, except as specified in paragraphs (12)(b)(A) and (B) of this rule.

(A) During the annual dioxin/furan or mercury performance test and the 2 weeks preceding the annual dioxin/furan or mercury performance test, no limit is applicable for average mass carbon feed rate if the provisions of paragraph (12)(b)(B) of this rule are met.
(B) The limit for average mass carbon feed rate may be waived in accordance with permission granted by the Administrator for the purpose of evaluating system performance, testing new technology or control technologies, diagnostic testing, or related activities for the purpose of improving facility performance or advancing the state-of-the-art for controlling facility emissions.
(c) The owner or operator must estimate the total carbon usage of the plant (kilograms or pounds) for each calendar quarter by two independent methods, according to the procedures in paragraphs (12)(c)(A) and (B) of this rule.
(A) The weight of carbon delivered to the plant.
(B) Estimate the average carbon mass feed rate in kilograms per hour or pounds per hour for each hour of operation for each affected facility based on the parameters specified under subsection (12)(a) of this rule, and sum the results for all affected facilities at the plant for the total number of hours of operation during the calendar quarter.
(d) Pneumatic injection pressure or other carbon injection system operational indicator must be used to provide additional verification of proper carbon injection system operation. The operational indicator must provide an instantaneous visual and/or audible alarm to alert the operator of a potential interruption in the carbon feed that would not normally be indicated by direct monitoring of carbon mass feed rate (e.g., continuous weight loss feeder) or monitoring of the carbon system operating parameter(s) that are the indicator(s) of carbon mass feed rate (e.g., screw feeder speed). The carbon injection system operational indicator used to provide additional verification of carbon injection system operation, including basis for selecting the indicator and operator response to the indicator alarm, must be included in subsection (5)(f) of this rule of the site-specific operating manual required under OAR 340-230-0330(4).
(13) In place of periodic manual testing of mercury, cadmium, lead, or hydrogen chloride with **EPA Reference Method 26**, **26A**, **29**, or as an alternative **ASTM D6784-02** (as applicable), affected facilities may elect to install, calibrate, maintain, and operate a continuous emission monitoring system for monitoring emissions discharged to the atmosphere and record the output of the system. The option to use a continuous emission monitoring system for mercury takes effect on the date of approval of the site-specific monitoring plan required in subsection (13)(m) of this rule and section (14) of this rule. The option to use a continuous emission monitoring system for cadmium, lead, or hydrogen chloride takes effect on the date a final performance specification applicable to cadmium, lead, or hydrogen chloride monitor is published in the Federal Register or the date of approval of the site-specific monitoring plan required in subsection (13)(m) of this rule and section (14) of this rule. The owner or operator of an affected facility who elects to continuously monitor emissions instead of conducting manual performance testing must install, calibrate, maintain, and operate a continuous emission monitoring system and must comply with the requirements in subsections (13)(a) through (n) of this rule.
(a) Notify the Administrator and the Department one month before starting use of the system.
(b) Notify the Administrator and the Department one month before stopping use of the system.
(c) The monitor must be installed, evaluated, and operated in accordance with **40 CFR 60.13**.
(d) The initial performance evaluation must be completed no later than 180 days after the date of initial startup of the affected facility, as specified under **40 CFR 60.8** or within 180 days of notification to the

Administrator and the Department of use of the continuous monitoring system if the owner or operator was previously determining compliance by **EPA Reference Method 26**, **26A**, **29**, or as an alternative **ASTM D6784-02** (as applicable) performance tests, whichever is later.
(e) The owner or operator may request that compliance with the emission limits be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility must be established as specified in subsection (2)(e) of this rule.
(f) The owner or operator must conduct an initial performance test for emissions as required under **40 CFR 60.8**. Compliance with the emission limits must be determined by using the continuous emission monitoring system specified in section (13) of this rule to measure emissions and calculating a 24-hour block arithmetic average emission concentration using **EPA Reference Method 19**, section 12.4.1.
(g) Compliance with the emission limits must be determined based on the 24-hour daily (block) average of the hourly arithmetic average emission concentrations using continuous emission monitoring system outlet data.
(h) Beginning on April 28, 2008 for mercury and on the date two years after final performance specifications for cadmium, lead or hydrogen chloride monitors are published in the Federal Register or the date two years after approval of a site-specific monitoring plan, valid continuous monitoring system hourly averages must be obtained as specified in paragraphs (13)(h)(A) and (B) of this rule for at least 90 percent of the operating hours per calendar quarter and 95 percent of the operating hours per calendar year that the affected facility is combusting municipal solid waste.
(A) At least two data points per hour must be used to calculate each 1-hour arithmetic average.
(B) Each 1-hour arithmetic average must be corrected to 7 percent oxygen on an hourly basis using the 1-hour arithmetic average of the oxygen (or carbon dioxide) continuous emission monitoring system data.
(i) The 1-hour arithmetic averages required under subsection (13)(g) of this rule must be expressed in micrograms per dry standard cubic meter for mercury, cadmium, lead and parts per million dry volume for hydrogen chloride corrected to 7 percent oxygen (dry basis) and must be used to calculate the 24-hour daily arithmetic (block) average emission concentrations. The 1-hour arithmetic averages must be calculated using the data points required under **40 CFR 60.13(e)(2)**.
(j) All valid continuous emission monitoring system data must be used in calculating average emission concentrations even if the minimum continuous emission monitoring system data requirements of subsection (13)(h) of this rule are not met.
(k) The continuous emission monitoring system for mercury must be operated according to **Performance Specification 12A** in **40 CFR part 60 appendix B** or the approved site-specific monitoring plan.
(l) During each relative accuracy test run of the continuous emission monitoring system required by the performance specifications in subsection (13)(k) of this rule, mercury, cadmium, lead, hydrogen chloride, and oxygen (or carbon dioxide) data must be collected concurrently (or within a 30- to 60-minute period) by both the continuous emission monitors and the test methods specified in paragraphs (13)(l)(A) through (C) of this rule.
(A) For mercury, cadmium, and lead, **EPA Reference Method 29** or as an alternative **ASTM D6784-02** must be used.
(B) For hydrogen chloride, **EPA Reference Method 26** or **26A** must be used.
(C) For oxygen (or carbon dioxide), **EPA Reference Method 3**, **3A**, or **3B**, as applicable must be used.

(m) The owner or operator who elects to install, calibrate, maintain, and operate a continuous emission monitoring system for mercury, cadmium, lead, or hydrogen chloride must develop and implement a site-specific monitoring plan as specified in section (14) of this rule. The owner or operator who relies on a performance specification may refer to that document in addressing applicable procedures and criteria.
(n) When emissions data are not obtained because of continuous emission monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, parametric monitoring data must be obtained by using other monitoring systems as approved by EPA.
(14) The owner or operator who elects to install, calibrate, maintain, and operate a continuous emission monitoring system for mercury, cadmium, lead, or hydrogen chloride must develop and submit for approval by EPA, a site-specific mercury, cadmium, lead, or hydrogen chloride monitoring plan that addresses the elements and requirements in subsections (14)(a) through (g) of this rule.
(a) Installation of the continuous emission monitoring system sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions (e.g., on or downstream of the last control device).
(b) Performance and equipment specifications for the sample interface, the pollutant concentration analyzer, and the data collection and reduction system.
(c) Performance evaluation procedures and acceptance criteria (e.g., calibrations).
(d) Provisions for periods when the continuous emission monitoring system is out of control as described in paragraphs (14)(d)(A) through (C) of this rule.
(A) A continuous emission monitoring system is out of control if either of the conditions in subparagraph (14)(d)(A)(i) or (ii) of this rule are met.
(i) The zero (low-level), mid-level (if applicable), or high-level calibration drift exceeds two times the applicable calibration drift specification in the applicable performance specification or in the relevant standard; or
(ii) The continuous emission monitoring system fails a performance test audit (e.g., cylinder gas audit), relative accuracy audit, relative accuracy test audit, or linearity test audit.
(B) When the continuous emission monitoring system is out of control as defined in paragraph (14)(d)(A) of this rule, the owner or operator of the affected source must take the necessary corrective action and must repeat all necessary tests that indicate that the system is out of control. The owner or operator must take corrective action and conduct retesting until the performance requirements are below the applicable limits. The beginning of the out-of-control period is the hour the owner or operator conducts a performance check (e.g., calibration drift) that indicates an exceedance of the performance requirements established under this part. The end of the out-of-control period is the hour following the completion of corrective action and successful demonstration that the system is within the allowable limits. During the period the continuous emission monitoring system is out of control, recorded data shall not be used in data averages and calculations or to meet any data availability requirements in subsection (13)(h) of this rule.
(C) The owner or operator of a continuous emission monitoring system that is out of control as defined in subsection (14)(d) of this rule must submit all information concerning out-of-control periods, including start and end dates and hours and descriptions of corrective actions taken in the annual or semiannual compliance reports required in OAR 340-230-0350(3) or (4).
(e) Ongoing data quality assurance procedures for continuous emission monitoring systems as described in paragraphs (14)(e)(A) and (B) of this rule.

(A) Develop and implement a continuous emission monitoring system quality control program. As part of the quality control program, the owner or operator must develop and submit to EPA for approval, upon request, a site-specific performance evaluation test plan for the continuous emission monitoring system performance evaluation required in paragraph (14)(e)(B) of this rule. In addition, each quality control program must include, at a minimum, a written protocol that describes procedures for each of the operations described in subparagraphs (14)(e)(A)(i) through (vi) of this rule.
(i) Initial and any subsequent calibration of the continuous emission monitoring system;
(ii) Determination and adjustment of the calibration drift of the continuous emission monitoring system;
(iii) Preventive maintenance of the continuous emission monitoring system, including spare parts inventory;
(iv) Data recording, calculations, and reporting;
(v) Accuracy audit procedures, including sampling and analysis methods; and
(vi) Program of corrective action for a malfunctioning continuous emission monitoring system.
(B) The performance evaluation test plan must include the evaluation program objectives, an evaluation program summary, the performance evaluation schedule, data quality objectives, and both an internal and external quality assurance program. Data quality objectives are the pre-evaluation expectations of precision, accuracy, and completeness of data. The internal quality assurance program must include, at a minimum, the activities planned by routine operators and analysts to provide an assessment of continuous emission monitoring system performance, for example, plans for relative accuracy testing using the appropriate reference method. The external quality assurance program must include, at a minimum, systems audits that include the opportunity for on-site evaluation by the Administrator or the Department of instrument calibration, data validation, sample logging, and documentation of quality control data and field maintenance activities.
(f) Conduct a performance evaluation of each continuous emission monitoring system in accordance with the site-specific monitoring plan.
(g) Operate and maintain the continuous emission monitoring system in continuous operation according to the site-specific monitoring plan.
(15) In place of periodic manual testing of dioxin/furan or mercury with **EPA Reference Method 23**, **29**, or as an alternative **ASTM D6784-02** (as applicable), the owner or operator of an affected facility may elect to install, calibrate, maintain, and operate a continuous automated sampling system for determining emissions discharged to the atmosphere. This option takes effect on the date a final performance specification applicable to such continuous automated sampling systems is published in the Federal Register or the date of approval of a site-specific monitoring plan. The owner or operator of an affected facility who elects to use a continuous automated sampling system to determine emissions instead of conducting manual performance testing must install, calibrate, maintain, and operate the sampling system and conduct analyses in compliance with the requirements specified in subsections (15)(a) through (k) of this rule.
(a) Notify the Administrator and the Department one month before starting use of the system.
(b) Notify the Administrator and the Department one month before stopping use of the system.
(c) The initial performance evaluation must be completed within 180 days of notification to the Administrator and the Department of use of the continuous monitoring system if the owner or operator was previously determining compliance by manual performance testing using Method 23, 29, or as an alternative **ASTM D6784-02** (as applicable), whichever is later.

(d) The owner or operator may request that compliance with the emission limits be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility must be established as specified in subsection (2)(e) of this rule.
(e) The owner or operator must conduct an initial performance test for emissions as required under **40 CFR 60.8**. Compliance with the emission limits must be determined by using the continuous automated sampling system specified in section (15) of this rule to collect integrated samples and analyze emissions for the time period specified in paragraphs (15)(e)(A) and (B) of this rule.
(A) For dioxin/furan, the continuous automated sampling system must collect an integrated sample over each 2-week period. The collected sample must be analyzed using **EPA Reference Method 23**.
(B) For mercury, the continuous automated sampling system must collect an integrated sample over each 24-hour daily period and the sample must be analyzed according to the applicable final performance specification or the approved site-specific monitoring plan required by section (16) of this rule.
(f) Compliance with the emission limits must be determined based on 2-week emission concentrations for dioxin/furan and on the 24-hour daily emission concentrations for mercury using samples collected at the system outlet. The emission concentrations must be expressed in nanograms per dry standard cubic meter (total mass) for dioxin/furan and micrograms per dry standard cubic meter for mercury, corrected to 7 percent oxygen (dry basis).
(g) Beginning on the date two years after the respective final performance specification for continuous automated sampling systems for dioxin/furan or mercury is published in the **Federal Register** or two years after approval of a site-specific monitoring plan, the continuous automated sampling system must be operated and collect emissions for at least 90 percent of the operating hours per calendar quarter and 95 percent of the operating hours per calendar year that the affected facility is combusting municipal solid waste.
(h) All valid data must be used in calculating emission concentrations.
(i) The continuous automated sampling system must be operated according to the final performance specification or the approved site-specific monitoring plan.
(j) The owner or operator who elects to install, calibrate, maintain, and operate a continuous automated sampling system for dioxin/furan or mercury must develop and implement a site-specific monitoring plan as specified in section (16) of this rule. The owner or operator who relies on a performance specification may refer to that document in addressing applicable procedures and criteria.
(k) When emissions data are not obtained because of continuous automated sampling system breakdowns, repairs, quality assurance checks, or adjustments, parametric monitoring data must be obtained by using other monitoring systems as approved by EPA.
(16) The owner or operator who elects to install, calibrate, maintain, and operate a continuous automated sampling system for dioxin/furan or mercury must develop and submit for approval by EPA, a site-specific monitoring plan that has sufficient detail to assure the validity of the continuous automated sampling system data and that addresses the elements and requirements in subsections (16)(a) through (g) of this rule.
(a) Installation of the continuous automated sampling system sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions (e.g., on or downstream of the last control device).

(b) Performance and equipment specifications for the sample interface, the pollutant concentration analytical method, and the data collection system.
(c) Performance evaluation procedures and acceptance criteria.
(d) Provisions for periods when the continuous automated sampling system is malfunctioning or is out of control as described in paragraphs (16)(d)(A) through (C) of this rule.
(A) The site-specific monitoring plan must identify criteria for determining that the continuous automated sampling system is out of control. This includes periods when the sampling system is not collecting a representative sample or is malfunctioning, or when the analytical method does not meet site-specific quality criteria established in subsection (16)(e) of this rule.
(B) When the continuous automated sampling system is out of control as defined in paragraph (16)(d)(A) of this rule, the owner or operator must take the necessary corrective action and must repeat all necessary tests that indicate that the system is out of control. The owner or operator must take corrective action and conduct retesting until the performance requirements are within the applicable limits. The out-of-control period includes all hours that the sampling system was not collecting a representative sample or was malfunctioning, or hours represented by a sample for which the analysis did not meet the relevant quality criteria. Emissions data obtained during an out-of-control period shall not be used in determining compliance with the emission limits or to meet any data availability requirements in subsection (15)(h) of this rule.
(C) The owner or operator of a continuous automated sampling system that is out of control as defined in subsection (16)(d) of this rule must submit all information concerning out-of-control periods, including start and end dates and hours and descriptions of corrective actions taken in the annual or semiannual compliance reports required in OAR 340-230-0350(3) or (4).
(e) Ongoing data quality assurance procedures for continuous automated sampling systems as described in paragraphs (16)(e)(A) and (B) of this rule.
(A) Develop and implement a continuous automated sampling system and analysis quality control program. As part of the quality control program, affected facilities must develop and submit to EPA for approval, upon request, a site-specific performance evaluation test plan for the continuous automated sampling system performance evaluation required in paragraph (16)(e)(B) of this rule. In addition, each quality control program must include, at a minimum, a written protocol that describes procedures for each of the operations described in subparagraphs (16)(e)(A)(i) through (vii) of this rule.
(i) Correct placement, installation of the continuous automated sampling system such that the system is collecting a representative sample of gas;
(ii) Initial and subsequent calibration of flow such that the sample collection rate of the continuous automated sampling system is known and verifiable;
(iii) Procedures to assure representative (e.g., proportional or isokinetic) sampling;
(iv) Preventive maintenance of the continuous automated sampling system, including spare parts inventory and procedures for cleaning equipment, replacing sample collection media, or other servicing at the end of each sample collection period;
(v) Data recording and reporting, including an automated indicator and recording device to show when the continuous automated monitoring system is operating and collecting data and when it is not collecting data;
(vi) Accuracy audit procedures for analytical methods; and
(vii) Program of corrective action for a malfunctioning continuous automated sampling system.

(B) The performance evaluation test plan must include the evaluation program objectives, an evaluation program summary, the performance evaluation schedule, data quality objectives, and both an internal and external quality assurance program. Data quality objectives are the pre-evaluation expectations of precision, accuracy, and completeness of data. The internal quality assurance program must include, at a minimum, the activities planned by routine operators and analysts to provide an assessment of continuous automated sampling system performance, for example, plans for relative accuracy testing using the appropriate reference method in subsection (15)(c) of this rule, and an assessment of quality of analysis results. The external quality assurance program must include, at a minimum, systems audits that include the opportunity for on-site evaluation by the Administrator or the Department of instrument calibration, data validation, sample logging, and documentation of quality control data and field maintenance activities.
(f) Conduct a performance evaluation of each continuous automated sampling system in accordance with the site-specific monitoring plan.
(g) Operate and maintain the continuous automated sampling system in continuous operation according to the site-specific monitoring plan.
(17) Continuous monitoring for opacity, sulfur dioxide, nitrogen oxides, carbon monoxide, and diluent gases (oxygen or carbon dioxide) must be conducted in accordance with the Department's Continuous Monitoring Manual and the specific requirements of this rule. If at any time there is a conflict between the Department's **Continuous Monitoring Manual** and the federal requirements contained in **40 CFR 60.13**, **Appendix B** and **Appendix F**), the federal requirements must govern.
[Publications: Publications & Equation referenced are available from the agency.]
Stat. Auth.: ORS 468.020
Stats. Implemented: ORS 468A.02
Hist.: DEQ 27-1996, f. & cert. ef. 12-11-96; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-025-0990; DEQ 4-2003, f. & cert. ef. 2-06-03

340-230-0350
Recordkeeping and Reporting
(1) The owner or operator of an affected facility subject to the standards contained in OAR 340-230-0310 through 340-230-0335 must maintain records of the information specified in subsections (1)(a) through (l) of this rule , as applicable, for each affected facility for a period of at least 5 years. The information must be available for submittal to the Department or for review onsite by an inspector.
(a) The calendar date of each record.
(b) The emission concentrations and parameters measured using continuous monitoring systems as specified in paragraphs (1)(b)(A) and (B) of this rule:
(A) The measurements specified in subparagraphs (1)(b)(A)(i) through (v) of this rule must be recorded and be available for submittal to the Department or review on-site by Department inspector:
(i) All 6-minute average opacity levels as specified under OAR 340-230-0340(3).
(ii) All 1-hour average sulfur dioxide emission concentrations as specified under OAR 340-230-0340(5).
(iii) All 1-hour average nitrogen oxides emission concentrations as specified under OAR 340-230-0340(8).
(iv) All 1-hour average carbon monoxide emission concentrations, municipal waste combustor unit load measurements (if applicable), and particulate matter control device inlet temperatures as specified under OAR 340-230-0340(9).

(v) For owners and operators who elect to continuously monitor particulate matter, cadmium, lead, mercury, or hydrogen chloride emissions instead of conducting performance testing using EPA manual test methods, all 1-hour average particulate matter, cadmium, lead, mercury, or hydrogen chloride emission concentrations as specified under OAR 340-230-0340(13).
(B) The average concentrations and percent reductions, as applicable, specified in subparagraphs (1)(b)(B)(i) through (vi) of this rule must be computed and recorded, and must be available for submittal to the Department or review on-site by Department inspector.
(i) All 24-hour daily geometric average sulfur dioxide emission concentrations and all 24-hour daily geometric average percent reductions in sulfur dioxide emissions as specified under OAR 340-230-0340(5).
(ii) All 24-hour daily arithmetic average nitrogen oxides emission concentrations as specified under OAR 340-230-0340(8).
(iii) All 4-hour block or 24-hour daily arithmetic average carbon monoxide emission concentrations, as applicable, as specified under OAR 340-230-0340(9).
(iv) All 4-hour block arithmetic average municipal waste combustor unit load levels (if applicable) and particulate matter control device inlet temperatures as specified under OAR 340-230-0340(9).
(v) For owners and operators who elect to continuously monitor particulate matter, cadmium, lead, mercury, or hydrogen chloride emissions instead of conducting performance testing using EPA manual test methods, all 24-hour daily arithmetic average particulate matter, cadmium, lead, mercury, or hydrogen chloride emission concentrations as specified under OAR 340-230-0340(13).
(vi) For owners and operators who elect to use a continuous automated sampling system to monitor mercury or dioxin/furan instead of conducting performance testing using EPA manual test methods, all integrated 24-hour mercury concentrations or all integrated 2-week dioxin/furan concentrations as specified under OAR 340-230-0340(15).
(c) Identification of the calendar dates when any of the average emission concentrations, percent reductions, or operating parameters recorded under subparagraphs (1)(b)(B)(i) through (vi) of this rule, or the opacity levels recorded under subparagraph (1)(b)(A)(i) of this rule are above the applicable limits, with reasons for such exceedances and a description of corrective actions taken.
(d) For affected facilities that apply activated carbon for mercury or dioxin/furan control, the records specified in paragraphs (1)(d)(A) through (E) of this rule:
(A) The average carbon mass feed rate (in kilograms per hour or pounds per hour) estimated as specified under OAR 340-230-0340(12)(a)(A) during each mercury emissions performance test, with supporting calculations.
(B) The average carbon mass feed rate (in kilograms per hour or pounds per hour) estimated as specified under OAR 340-230-0340(12)(a)(B) during each dioxin/furan emissions performance test, with supporting calculations.
(C) The average carbon mass feed rate (in kilograms per hour or pounds per hour) estimated for each hour of operation as specified under OAR 340-230-0340(12)(c)(B), with supporting calculations.
(D) The total carbon usage for each calendar quarter estimated as specified under OAR 340-230-0340(12)(c), with supporting calculations.
(E) Carbon injection system operating parameter data for the parameter(s) that are the primary indicator(s) of carbon feed rate (e.g., screw feeder speed).
(e) Identification of the calendar dates and times (hours) for which valid hourly data specified in paragraphs (1)(e)(A) through (F) of this rule have not been obtained, or continuous automated sampling

systems were not operated as specified in paragraph (1)(e)(G) of this rule, including reasons for not obtaining the data and a description of corrective actions taken.
(A) Sulfur dioxide emissions data;
(B) Nitrogen oxides emissions data;
(C) Carbon monoxide emissions data;
(D) Municipal waste combustor unit load data;
(E) Particulate matter control device temperature data; and
(F) For owners and operators who elect to continuously monitor particulate matter, cadmium, lead, mercury, or hydrogen chloride emissions instead of performance testing by EPA manual test methods, particulate matter, cadmium, lead, mercury, or hydrogen chloride emissions data.
(G) For owners and operators who elect to use continuous automated sampling systems for dioxins/furans or mercury as allowed under OAR 340-230-0340(15) and (16), dates and times when the sampling systems were not operating or were not collecting a valid sample.
(f) Identification of each occurrence that sulfur dioxide emissions data, nitrogen oxides emissions data, particulate matter emissions data, cadmium emissions data, lead emissions data, mercury emissions data, hydrogen chloride emissions data, or dioxin/furan emissions data (for owners and operators who elect to continuously monitor particulate matter, cadmium, lead, mercury, or hydrogen chloride, or who elect to use continuous automated sampling systems for dioxin/furan or mercury emissions, instead of conducting performance testing using EPA manual test methods) or operational data (i.e., carbon monoxide emissions, unit load, and particulate matter control device temperature) have been excluded from the calculation of average emission concentrations or parameters, and the reasons for excluding the data.
(g) The results of daily drift tests and quarterly accuracy determinations for sulfur dioxide, nitrogen oxides, and carbon monoxide continuous emission monitoring systems, as required by **40 CFR part 60 appendix F**, procedure 1.
(h) The test reports documenting the results of the initial performance test and all annual performance tests listed in paragraphs (1)(h)(A) and (B) of this rule must be recorded along with supporting calculations:
(A) The results of the initial performance test and all annual performance tests conducted to determine compliance with the particulate matter, opacity, cadmium, lead, mercury, dioxins/furans, hydrogen chloride, and fugitive ash emission limits.
(B) For the initial dioxin/furan performance test and all subsequent dioxin/furan performance tests recorded under paragraph (1)(h)(A) of this rule, the maximum demonstrated municipal waste combustor unit load and maximum demonstrated particulate matter control device temperature (for each particulate matter control device).
(i) An owner or operator who elects to continuously monitor emissions instead of performance testing by EPA manual methods must maintain records specified in paragraphs (1)(i)(A) through (C) of this rule.
(A) For owners and operators who elect to continuously monitor particulate matter instead of conducting performance testing using EPA manual test methods, as required under **40 CFR part 60 appendix F**, procedure 2, the results of daily drift tests and quarterly accuracy determinations for particulate matter.
(B) For owners and operators who elect to continuously monitor cadmium, lead, mercury, or hydrogen chloride instead of conducting EPA manual test methods, the results of all quality evaluations, such as

daily drift tests and periodic accuracy determinations, specified in the approved site-specific performance evaluation test plan required by OAR 340-230-0340(14)(e).
(C) For owners and operators who elect to use continuous automated sampling systems for dioxin/furan or mercury, the results of all quality evaluations specified in the approved site-specific performance evaluation test plan required by OAR 340-230-0340(16)(e).
(j) Training records specified in paragraphs (1)(j)(A) through (D) of this rule.
(A) Records showing the names of the municipal waste combustor chief facility operator, shift supervisors, and control room operators who have been provisionally certified by the American Society of Mechanical Engineers or an equivalent State-approved certification program as required by OAR 340-230-0330(1), including the dates of initial and renewal certifications and documentation of current certification.
(B) Records showing the names of the municipal waste combustor chief facility operator, shift supervisors, and control room operators who have been fully certified by the American Society of Mechanical Engineers or an equivalent State-approved certification program as required by OAR 340-230-0330(2), including the dates of initial and renewal certifications and documentation of current certification.
(C) Records showing the names of the municipal waste combustor chief facility operator, shift supervisors, and control room operators who have completed the EPA municipal waste combustor operator training course or a State-approved equivalent course, including documentation of training completion.
(D) Records of when a certified operator is temporarily off site. Include two main items:
(i) If the certified chief facility operator and certified shift supervisor are off site for more than 12 hours, but for 2 weeks or less, and no other certified operator is on site, record the dates that the certified chief facility operator and certified shift supervisor were off site.
(ii) When all certified chief facility operators and certified shift supervisors are off site for more than 2 weeks and no other certified operator is on site, keep records of four items:
(I) Time of day that all certified persons are off site.
(II) The conditions that cause those people to be off site.
(III) The corrective actions taken by owner or operator of the affected facility to ensure a certified chief facility operator or certified shift supervisor is on site as soon as practicable.
(IV) Copies of the written reports submitted every 4 weeks that summarize the actions taken by the owner or operator of the affected facility to ensure that a certified chief facility operator or certified shift supervisor will be on site as soon as practicable.
(k) Records showing the names of persons who have completed a review of the operating manual as required by OAR 340-230-0330(5), including the date of the initial review and subsequent annual reviews.
(l) For affected facilities that apply activated carbon for mercury or dioxin/furan control:
(A) Identification of the calendar dates when the average carbon mass feed rates were less than either of the hourly carbon feed rates estimated during performance tests for mercury or dioxin/furan emissions with reasons for such feed rates and a description of corrective actions taken.
(B) Identification of the calendar dates when the carbon injection system operating parameter(s) that are the primary indicator(s) of carbon mass feed rate (e.g., screw feeder speed) recorded under OAR 340-230-0340(12)(a)(A) and (B) are below the level(s) estimated during the performance tests, with reasons for such occurrences and a description of corrective actions taken.

(2) The owner or operator of an affected facility must submit the information specified in subsections (2)(a) through (f) of this rule in a performance test report within 60 days following the completion of each performance test.
(a) The performance test data as recorded under subparagraphs (1)(b)(B)(i) through (iv) of this rule for each performance test for sulfur dioxide, nitrogen oxide, carbon monoxide, municipal waste combustor unit load level, and particulate matter control device inlet temperature.
(b) The test report documenting the performance test recorded under subsection (1)(h) of this rule for particulate matter, opacity, cadmium, lead, mercury, dioxins/furans, hydrogen chloride, fugitive ash emissions.
(c) The performance evaluation of the continuous emission monitoring systems using the applicable performance specifications in **40 CFR 60 appendix B**.
(d) The maximum demonstrated municipal waste combustor unit load and maximum demonstrated particulate matter control device inlet temperature(s) established during the dioxin/furan performance test.
(e) For affected facilities that apply activated carbon injection for mercury control, the owner or operator must submit the average carbon mass feed rate recorded during the mercury performance test.
(f) For affected facilities that apply activated carbon injection for dioxin/furan control, the owner or operator must submit the average carbon mass feed rate recorded during the dioxin/furan performance test.
(3) The owner or operator of an affected facility must submit semi-annual reports that includes the information specified in subsections (3)(a) through (e) of this rule, as applicable, no later than July 30 for the first six months of each calendar year and February 1 for the second six months of each calendar year.
(a) A summary of data collected for all pollutants and parameters regulated under this rule, which includes the information specified in paragraphs (3)(a)(A) through (E) of this rule:
(A) A list of the particulate matter, opacity, cadmium, lead, mercury, dioxins/furans, hydrogen chloride, and fugitive ash emission levels achieved during any performance tests conducted during the reporting period.
(B) A list of the highest emission level recorded for sulfur dioxide, nitrogen oxides, carbon monoxide, particulate matter, cadmium, lead, mercury, hydrogen chloride, and dioxin/furan (for owners and operators who elect to continuously monitor particulate matter, cadmium, lead, mercury, hydrogen chloride, and dioxin/furan emissions instead of conducting performance testing using EPA manual test methods), municipal waste combustor unit load level, and particulate matter control device inlet temperature based on the data recorded during the reporting period.
(C) List the highest opacity level measured based on the data recorded during the reporting period.
(D) Periods when valid data were not obtained as described in subparagraphs (3)(a)(D)(i) through (iii) of this rule.
(i) The total number of hours per calendar quarter and hours per calendar year that valid data for sulfur dioxide, nitrogen oxides, carbon monoxide, municipal waste combustor unit load, or particulate matter control device temperature data were not obtained based on the data recorded during the reporting period.
(ii) For owners and operators who elect to continuously monitor particulate matter, cadmium, lead, mercury, and hydrogen chloride emissions instead of conducting performance testing using EPA manual test methods, the total number of hours per calendar quarter and hours per calendar year that valid data

for particulate matter, cadmium, lead, mercury, and hydrogen chloride were not obtained based on the data recorded during the reporting period. For each continuously monitored pollutant or parameter, the hours of valid emissions data per calendar quarter and per calendar year expressed as a percent of the hours per calendar quarter or year that the affected facility was operating and combusting municipal solid waste.
(iii) For owners and operators who elect to use continuous automated sampling systems for dioxin/furan or mercury, the total number of hours per calendar quarter and hours per calendar year that the sampling systems were not operating or were not collecting a valid sample based on the data recorded during the reporting period. Also, the number of hours during which the continuous automated sampling system was operating and collecting a valid sample as a percent of hours per calendar quarter or year that the affected facility was operating and combusting municipal solid waste.
(E) Periods when valid data were excluded from the calculation of average emission concentrations or parameters as described subparagraphs (3)(a)(E)(i) through (iii) of this rule.
(i) The total number of hours that data for sulfur dioxide, nitrogen oxides, carbon monoxide, municipal waste combustor unit load, and particulate matter control device temperature were excluded from the calculation of average emission concentrations or parameters based on the data recorded during the reporting period.
(ii) For owners and operators who elect to continuously monitor particulate matter, cadmium, lead, mercury, or hydrogen chloride emissions instead of conducting performance testing using EPA manual test methods, the total number of hours that data for particulate matter, cadmium, lead, mercury, or hydrogen chloride were excluded from the calculation of average emission concentrations or parameters based on the data recorded during the reporting period.
(iii) For owners and operators who elect to use continuous automated sampling systems for dioxin/furan or mercury, the total number of hours that data for mercury and dioxin/furan were excluded from the calculation of average emission concentrations or parameters based on the data recorded during the reporting periods.
(b) The summary of data reported under subsection (3)(a) of this rule must also provide the types of data specified in subsection (3)(a)(A) through (E) of this rule for the calendar year preceding the year being reported, in order to provide the Department with a summary of the performance of the affected facility over a 2-year period.
(c) The summary of data including the information specified in subsections (3)(a) and (b) of this rule must highlight any emission or parameter levels that did not achieve the emission or parameter limits specified by OAR 340-230-0310 through 340-230-0320.
(d) A notification of intent to begin the reduced dioxin/furan performance testing schedule specified in OAR 340-230-0340(7)(d)(C) during the following calendar year and notification of intent to apply the average carbon mass feed rate and associated carbon injection system operating parameter levels as established in OAR 340-230-0340(12) to similarly designed and equipped units on site.
(e) Documentation periods when all certified chief facility operators and certified shift supervisors are off site for more than 12 hours.
(4) The owner or operator of an affected facility must submit a semiannual report that includes the information specified in subsections (4)(a) through (e) of this rule for any recorded pollutant or parameter that does not comply with the pollutant or parameter limit by July 30 for the first six months of each calendar year and February 1 for the second six months of each calendar year.

(a) The semiannual report must include information recorded under subsection (1)(c) of this rule for sulfur dioxide, nitrogen oxides, carbon monoxide, particulate matter, cadmium, lead, mercury, hydrogen chloride, dioxin/furan (for owners and operators who elect to continuously monitor particulate matter, cadmium, lead, mercury, or hydrogen chloride, or that elect to use continuous automated sampling systems for dioxin/furan or mercury emissions, instead of conducting performance testing using EPA manual test methods), municipal waste combustor unit load level, particulate matter control device inlet temperature, and opacity.
(b) For each date recorded under subsection (1)(c) of this rule and reported, as required by subsection (4)(a) of this rule, the semiannual report must include the sulfur dioxide, nitrogen oxides, carbon monoxide, municipal waste combustor unit load level, particulate matter control device inlet temperature, or opacity data, as applicable, recorded under subparagraphs (1)(b)(A)(i) and (1)(b)(B)(i) through (iv) of this rule, as applicable.
(c) If the test reports recorded under subsection (1)(h) of this rule document any particulate matter, opacity, cadmium, lead, mercury, dioxins/ furans, hydrogen chloride, and fugitive ash emission levels that were above the applicable pollutant limits, the semiannual report must include a copy of the test report documenting the emission levels and the corrective actions taken.
(d) The semiannual report must include the information recorded under subparagraph (1)(l)(B) of this rule for the carbon injection system operating parameter(s) that are the primary indicator(s) of carbon mass feed rate.
(e) For each operating date reported as required under subsection (4)(d) of this rule, the semiannual report must include the carbon feed rate data recorded under paragraph (1)(d)(C) of this rule.
(5) All reports specified under sections (2) through (4) of this rule must be submitted as a paper copy, postmarked on or before the submittal dates specified, and maintained onsite as a paper copy for a period of 5 years.
(6) All records specified under section (1) of this rule must be maintained onsite in either paper copy or computer-readable format, unless an alternative format is approved by the Department.
(7) If the owner or operator of an affected facility would prefer to select a different annual or semiannual date for submitting the periodic reports required under paragraphs (3) and (4) of this rule, then the dates may be changed in an Oregon Title V Operating Permit by mutual agreement between the owner or operator and the Department according to the procedures specified in 40 CFR 60.19(c).
(8) Owners and operators who elect to continuously monitor particulate matter, cadmium, lead, mercury, or hydrogen chloride, or who elect to use continuous automated sampling systems for dioxin/furan or mercury emissions, instead of conducting performance testing using EPA manual test methods must notify the Administrator and the Department one month prior to starting or stopping use of the particulate matter, cadmium, lead, mercury, hydrogen chloride, and dioxin/furan continuous emission monitoring systems or continuous automated sampling systems.
(9) Additional recordkeeping and reporting requirements for affected facilities with continuous cadmium, lead, mercury, or hydrogen chloride monitoring systems. In addition to complying with the requirements specified in sections (1) through (8) of this rule, the owner or operator of an affected source who elects to install a continuous emission monitoring system for cadmium, lead, mercury, or hydrogen chloride as specified in OAR 340-230-0340(13), must maintain the records in subsections (9)(a) through (j) of this rule and report the information in subsections (9)(k) and (l) of this rule, relevant to the continuous emission monitoring system:

(a) All required continuous emission monitoring measurements (including monitoring data recorded during unavoidable continuous emission monitoring system breakdowns and out-of-control periods).
(b) The date and time identifying each period during which the continuous emission monitoring system was inoperative except for zero (low-level) and high-level checks.
(c) The date and time identifying each period during which the continuous emission monitoring system was out of control, as defined in OAR 340-230-0340(14)(d).
(d) The specific identification (i.e., the date and time of commencement and completion) of each period of excess emissions and parameter monitoring exceedances, as defined in the standard, that occurs during startups, shutdowns, and malfunctions of the affected source.
(e) The specific identification (i.e., the date and time of commencement and completion) of each time period of excess emissions and parameter monitoring exceedances, as defined in the standard, that occurs during periods other than startups, shutdowns, and malfunctions of the affected source;
(f) The nature and cause of any malfunction (if known).
(g) The corrective action taken to correct any malfunction or preventive measures adopted to prevent further malfunctions.
(h) The nature of the repairs or adjustments to the continuous emission monitoring system that was inoperative or out of control.
(i) All procedures that are part of a quality control program developed and implemented for the continuous emission monitoring system under OAR 340-230-0340(14).
(j) When more than one continuous emission monitoring system is used to measure the emissions from one affected source (e.g., multiple breechings, multiple outlets), the owner or operator must report the results as required for each continuous emission monitoring system.
(k) Submit to the Department for approval, the site-specific monitoring plan required by OAR 340-230-0340(13)(m) and (14), including the site-specific performance evaluation test plan for the continuous emission monitoring system required by OAR 340-230-0340(14)(e). The owner or operator must maintain copies of the site-specific monitoring plan on record for the life of the affected source to be made available for inspection, upon request, by the Department. If the site-specific monitoring plan is revised and approved, the owner or operator must keep previous (i.e., superseded) versions of the plan on record to be made available for inspection, upon request, by the Department, for a period of 5 years after each revision to the plan.
(l) Submit information concerning all out-of-control periods for each continuous emission monitoring system, including start and end dates and hours and descriptions of corrective actions taken, in the annual or semiannual report required in sections (3) or (4) of this rule.
(10) Additional recordkeeping and reporting requirements for affected facilities with continuous automated sampling systems for dioxin/furan or mercury monitoring. In addition to complying with the requirements specified in sections (1) through (8) of this rule, the owner or operator of an affected facility who elects to install a continuous automated sampling system for dioxin/furan or mercury, as specified in OAR 340-230-0340(16), must maintain the records in subsections (10)(a) through (j) of this rule and report the information in subsections (10)(k) and (l) of this rule, relevant to the continuous automated sampling system:
(a) All required 24-hour integrated mercury concentration or 2-week integrated dioxin/furan concentration data (including any data obtained during unavoidable system breakdowns and out-of-control periods);

(b) The date and time identifying each period during which the continuous automated sampling system was inoperative;
(c) The date and time identifying each period during which the continuous automated sampling system was out of control, as defined in OAR 340-230-0340(16)(d);
(d) The specific identification (i.e., the date and time of commencement and completion) of each period of excess emissions and parameter monitoring exceedances, as defined in the standard, that occurs during startups, shutdowns, and malfunctions of the affected source;
(e) The specific identification (i.e., the date and time of commencement and completion) of each time period of excess emissions and parameter monitoring exceedances, as defined in the standard, that occurs during periods other than startups, shutdowns, and malfunctions of the affected source;
(f) The nature and cause of any malfunction (if known);
(g) The corrective action taken to correct any malfunction or preventive measures adopted to prevent further malfunctions;
(h) The nature of the repairs or adjustments to the continuous automated sampling system that was inoperative or out of control;
(i) All procedures that are part of a quality control program developed and implemented for the continuous automated sampling system under OAR 340-230-0340(16);
(j) When more than one continuous automated sampling system is used to measure the emissions from one affected source (e.g., multiple breechings, multiple outlets), the owner or operator must report the results as required for each system.
(k) Submit to the Department for approval, the site-specific monitoring plan required by OAR 340-230-0340(15)(k) and (16) including the site-specific performance evaluation test plan for the continuous emission monitoring system required by OAR 340-230-0340(16)(e). The owner or operator must maintain copies of the site-specific monitoring plan on record for the life of the affected source to be made available for inspection, upon request, by the Department. If the site-specific monitoring plan is revised and approved, the owner or operator must keep previous (i.e., superseded) versions of the plan on record to be made available for inspection, upon request, by the Department, for a period of 5 years after each revision to the plan.
(l) Submit information concerning all out-of-control periods for each continuous automated sampling system, including start and end dates and hours and descriptions of corrective actions taken in the annual or semiannual reports required in sections (3) or (4) of this rule.
(11) For affected facilities installing additional controls, the owner or operator must submit to the Department semi-annual progress reports on July 30 for the first six months of each calendar year and February 1 for the second six months of each calendar year.
(12) The owner or operator of an affected facility subject to OAR 340-230-0300 through 340-230-0350 must maintain records of and submit the following information with any Notice of Construction required by OAR 340-210-0200 through 340-210-0220 or Notice of Approval required by OAR 340-218-0190:
(a) Intent to construct;
(b) Planned initial startup date;
(c) The types of fuels that the owner or operated plans to combust in the municipal waste combustor; and
(d) The municipal waste combustor unit capacity~~, municipal waste combustor plant capacity,~~ and supporting capacity calculations prepared in accordance with OAR 340-230-0340(10).
[Publications: Publications referenced are available from the agency.]

Stat. Auth.: ORS 468.020
Stats. Implemented: ORS 468A.025
Hist.: DEQ 27-1996, f. & cert. ef. 12-11-96; DEQ 4-2003, f. & cert. ef. 2-06-03DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-025-1000; DEQ 4-2003, f. & cert. ef. 2-06-03

DIVISION 244

OREGON FEDERAL HAZARDOUS AIR POLLUTANT PROGRAM

Emission Standards for Gasoline Dispensing Facilities

340-244-0234
Affected Sources
(1) The affected source to which the emission standards apply is each GDF. The affected source includes each gasoline cargo tank during the delivery of product to a GDF and also includes each storage tank.
(2) The emissions standards in OAR 340-244-0236 through 0252 do not apply to agricultural operations as defined in ORS 468A.020. Agricultural operations are however required to comply with the Gasoline Dispensing NESHAP, if applicable (40 CFR part 63 subpart CCCCCC).
(3) All GDFs must comply with the requirements of OAR 340-244-0240.
(4) The owner or operator of a GDF must comply with the requirements of OAR 340-244-0242 for the following gasoline storage tanks:
(a) All tanks with a capacity of 250 gallons or more located at GDFs:
(A) Whose~~That have an average monthly~~ annual throughput ~~of~~exceeds ~~2~~480,000 gallons of gasoline or more;
(B) Whose average monthly throughput exceeds 100,000 gallons of gasoline or more; or
(C~~B~~) In Clackamas, Multnomah, or Washington County whose annual throughput exceeds 120,000 gallons of gasoline or more.
(b) All tanks with a capacity of 1,500 gallons or more located at GDFs in the Portland AQMA, Medford AQMA, or Salem SATS.
(5) The owner or operator of a GDF must comply with the requirements of OAR 340-244-0242(4) for any gasoline storage tank equipped with a vapor balance system.
(6~~5~~) An affected source must, upon request by the Department, demonstrate their annual or average monthly throughput.
(7~~6~~) The owner or operator of an affected source, as defined in section (1) of this rule, is not required to obtain a Title V Operating Permit. However, the owner or operator must still apply for and obtain a Title V Operating Permit if meeting one or more of the applicability criteria found in OAR 340-218-0020.
(8~~7~~) The loading of aviation gasoline storage tanks at airports is not subject to this rule and the aviation gasoline is not included in the gasoline throughput specified in sections (2) through (5) of this rule.

340-244-0238
Compliance Dates

(1) For a new or reconstructed affected source, the owner or operator must comply with the standards in OAR 340-244-0240 and 0242, as applicable, no later than January 10, 2008 or upon startup, whichever is later, except as follows:
(a) The owner or operator of a new or reconstructed GDF must comply with OAR 340-244-0240(1)(b) and (c) no later than July 1, 2009 or upon startup, whichever is later.
(b) For tanks located at a GDF with average monthly throughput less than 100,000 gallons of gasoline and not listed in OAR 340-244-0234(4)(a)(C) or (4)(b) must comply with OAR 340-244-0242, as applicable, no later than December 13, 2009 or upon startup, whichever is later.
(c) The owner or operator of a GDF subject to Table 4 of this division must comply no later than September 23, 2008 or upon startup, whichever is later.
(2~~3~~) For an existing affected source, the owner or operator must comply with the standards in OAR 340-244-0240 and 0242, as applicable, by no later than January 10, 2011, except as follows:
(a) For tanks with a capacity between 1,500 and 40,000 gallons and located in the Portland AQMA, Medford AQMA, or Salem SATS, the owner or operator must comply with the standards in OAR 340-244-0240(2) and 0242 no later than December 13, 2008.
(b) For tanks located at an affected source located in Clackamas, Multnomah, or Washington County, whose annual throughput exceeds 120,000 gallons, the owner or operator must comply with the standards in OAR 340-244-0240(2) and 0242 no later than December 13, 2008.
(c) The owner or operator of an existing GDF must comply with OAR 340-244-0240(1)(b) and (c) no later than July 1, 2009 or upon startup, whichever is later.
~~(c) For tanks not listed in subsection (2)(a) or (b) of this rule and located at a GDF with average monthly throughput between 20,000 and 40,000 gallons of gasoline must comply with OAR 340-244-0242 no later than January 10, 2014.~~
(3~~4~~) For an existing affected source that becomes subject to the control requirements in this rule because of an increase in the average monthly throughput, as specified in OAR 340-244-0234(4), the owner or operator must comply with the standards in this rule no later than January 10, 2011 or within 2 years after the affected source becomes subject to the control requirements in this rule, whichever is later.

340-244-0240
Work Practice and Submerged Fill Requirements
(1) The owner or operator of a GDF must not allow gasoline to be handled in a manner that would result in vapor releases to the atmosphere for extended periods of time. Measures to be taken include, but are not limited to, the following:
(a) Minimize gasoline spills;
(b) Do not top off or overfill vehicle tanks;
(c) Post a sign at the GDF instructing attendants not to top off vehicle tanks;
(d) Clean up spills as expeditiously as practicable;
(e) Cover all open gasoline containers and all gasoline storage tank fill-pipes with a gasketed seal when not in use;
(f) Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators.
(g) Ensure that cargo tanks unloading at the GDF comply with subsections (1)(a) through (e) of this rule.
(2) Any cargo tank unloading at a GDF equipped with a functional vapor balance system must connect to the vapor balance system whenever gasoline is being loaded.

(3~~2~~) The owner or operator must only load gasoline into storage tanks at the facility by utilizing submerged filling, as defined in OAR 340-244-0030, and as specified in subsection (2)(a) or (2)(b) of this rule.
(a) Submerged fill pipes installed on or before November 9, 2006, must be no more than 12 inches from the bottom of the storage tank.
(b) Submerged fill pipes installed after November 9, 2006, must be no more than 6 inches from the bottom of the storage tank.
(4~~3~~) Gasoline storage tanks with a capacity of less than 250 gallons are not required to comply with the submerged fill requirements in section (2) of this rule.
(5~~4~~) The owner or operator must submit the applicable notifications as required under OAR 340-244-0246.
(6~~5~~) The owner or operator must have records available within 24 hours of a request by the Department to document gasoline throughput.
(7~~6~~) The owner or operator must comply with the requirements of this rule by the applicable dates specified in OAR 340-244-0238.

340-244-0242
Vapor Balance Requirements
(1) Except as provided in section (2) of this rule, the owner or operator of gasoline storage tank listed in OAR 340-244-0234(4), must meet the requirements in either subsection (1)(a) or (1)(b) of this rule.
(a) Each management practice in Table 4 of this division that applies to the GDF.
(b) If, prior to January 10, 2008, the owner or operator operates a vapor balance system at the GDF that meets the requirements of either paragraph (2)(b)(A) or (2)(b)(B) of this rule, the owner or operator will be deemed in compliance with this section.
(A) Achieves emissions reduction of at least 90 percent.
(B) Operates using management practices at least as stringent as those in Table 4 of this division.
(2) Gasoline storage tanks equipped with floating roofs or the equivalent are not required to comply with the control requirements in section (1) of this rule.
(3) Cargo tanks unloading at a GDF must comply with the requirements of OAR 340-244-0240(1) and management practices in Table 5 of this division.
(4) The owner or operator of a GDF subject to section (1) of this rule or having a gasoline storage tank equipped with a vapor balance system, must comply with the following requirements on and after the applicable compliance date in OAR 340-244-0238:
(a) When loading a gasoline storage tank equipped with a vapor balance system, connect and ensure the proper operation of the vapor balance system whenever gasoline is being loaded.
(b) Maintain all equipment associated with the vapor balance system to be vapor tight and in good working order.
(c) In order to ensure that the vapor balance equipment is maintained to be vapor tight and in good working order, have the vapor balance equipment inspected on an annual basis to discover potential or actual equipment failures.
(d) Replace, repair or modify any worn or ineffective component or design element within 24 hours to ensure the vapor-tight integrity and efficiency of the vapor balance system. If repair parts must be ordered, either a written or verbal order for those parts must be initiated within 2 working days of detecting such a leak. Such repair parts must be installed within 5 working days after receipt.

(5) The owner or operator of a GDF subject to section (1) of this rule must also comply with the following requirements:
(a) The applicable testing requirements contained in OAR 340-244-0244.
(b) The applicable notification requirements under OAR 340-244-0246.
(c) The applicable recordkeeping and reporting requirements as specified in OAR 340-244-0248 and 0250.
(d) The owner or operator must have records available within 24 hours of a request by the Department to document gasoline throughput.

340-244-0250
Reporting requirements
(1) Each owner or operator subject to the management practices in OAR 340-244-0242 must report to the Department the results of all volumetric efficiency tests required under OAR 340-244-0244(1) and (2). Reports submitted under this rule must be submitted within ~~180~~30 days of the completion of the performance testing.

Table 1 (OAR 340-228-0631(1))
Missing Data Procedures for Hg CEMS

Trigger conditions		Calculation routines	
Monitor data availability (percent)	Duration (N) of CEMS outage (hours)[1]	Method	Look back period
90 or more	N ≤ 24	Average	hour before/hour after
	N > 24	Greater of average; or ~~90th percentile~~	hour before/hour after
		90th percentile	720 hours*
≥ 80 but < 90	N ≤ 8	Average	hour before/hour after
	N > 8	Greater of average; or ~~95th percentile~~	hour before/hour after
		90th percentile	720 hours*
≥ 70 but < 80	N > 0	Maximum value**	720 hours*
Below 70	N > 0	Maximum potential concentration*** or %	None

1 During unit operating hours.

*Quality-assured, monitor operating hours, during unit operation. Use data from no earlier than 3 years prior to the missing data period.

**Where a unit with add-on Hg emission controls can demonstrate that the controls are operating properly during the missing data period, as provided in 40 CFR 75.34, the unit may~~, upon approval,~~ use the maximum controlled ~~emission rate~~ concentration from the previous 720 quality-assured monitor operating hours.

*** Alternatively, where a unit with add-on Hg emission controls can demonstrate that the controls are operating properly during the missing data period, as provided in 40 CFR 75.34, the unit may report the greater of: (a) the maximum expected Hg concentration or (b) 1.25 times the maximum controlled value from the previous 720 quality-assured monitor operating hours.

Table 2 (OAR 340-228-0627(8))
Quality Assurance/Quality Control Criteria for Sorbent Trap Monitoring Systems

QA/QC test or specification	Acceptance criteria	Frequency	Consequences if not met
Pre-test leak check……………………..	≤4% of target sampling rate..	Prior to sampling…	Sampling shall not commence until the leak check is passed.
Post-test leak check…………………	≤4% of average sampling rate..	After sampling……..	~~Sample invalidated.~~*
Ratio of stack gas flow rate to sample flow rate……………………………..	~~Maintain within ± 25% of initial ratio from first hour of data collection period.~~ No more than 5% of the hourly ratios (whichever is less restrictive) may deviate from the reference ratio by more than ± 25%.	Every hour throughout data collection period.	~~Case-by-case evaluation~~*
Sorbent trap section 2 breakthrough.	≤ 5% of Section 1 Hg mass.........	Every sample............	~~Sample invalidated.~~*
Paired sorbent trap agreement………	≤10% Relative Deviation (RD) if the average concentration is > 1.0 µg/m^3. Results are also acceptable if absolute difference between concentrations from paired traps is < 0.03 µg/m^3.	Every sample............	~~Sample invalidated.*~~ Either invalidate the data from the paired traps or report the results from the trap with the higher Hg concentration.
Spike recovery study.........................	Average recovery between 85% and 115% for each of the 3 spike concentration levels.	Prior to analyzing field samples and prior to use of new sorbent media.	Field samples shall not be analyzed until the percent recovery criteria has been met.
Multipoint analyzer calibration..........	Each analyzer reading within ±	On the day of analysis,	Recalibrate until successful.

	10% of true value and $r^2 \geq 0.99$.	before analyzing any samples.	
Analysis of independent calibration standard……………………………	Within $\pm$ 10% of true value.........	Following daily calibration, prior to analyzing field samples.	Recalibrate and repeat independent standard analysis until successful.
Spike recovery from section 3 of sorbent trap…………………………	75–125% of spike amount..........	Every sample............	~~Sample invalidated.~~*
RATA………………………………	RA $\leq$ 20.0% or mean difference $\leq$ 1.0 µg/dscm for low emitters.	For initial certification and annually thereafter.	Data from the system are invalidated until a RATA is passed.
~~Dry g~~Gas flow meter calibration ~~(At 3 orifice initially, and 1 setting thereafter)~~ ………….	Calibration factor (Y) within $\pm$ 5% of average value from the initial 3-point calibration.	At three settings ~~P~~prior to initial use and at least quarterly at one setting thereafter. For mass flow meters, initial calibration with stack gas is required.	Recalibrate the meter at three orifice settings to determine a new value of Y.
Temperature sensor calibration…......	Absolute temperature measured by sensor within $\pm$ 1.5% of a reference sensor.	Prior to initial use and at least quarterly thereafter.	Recalibrate. Sensor may not be used until specification is met.
Barometer calibration........................	Absolute pressure measured by instrument within $\pm$ 10 mm Hg of reading with a mercury barometer.	Prior to initial use and at least quarterly thereafter.	Recalibrate. Instrument may not be used until specification is met.

* Note: If both traps fail to meet the acceptance criteria, the ~~and~~ data from the pair of ~~sorbent~~ traps are ~~also~~ invalidated. However, if only one of the paired traps fails to meet this particular acceptance criterion and the other sample meets all of the applicable QA criteria, the results of the valid trap may be used for reporting under this part, provided that the measured Hg concentration is multiplied by a factor of 1.111. When the data from both traps are invalidated and quality-assured data from a certified backup monitoring system, reference method, or approved alternative monitoring system are unavailable, missing data substitution must be used.

Table 3 (OAR 340-228-0635)
Codes for Method of Emissions and Flow Determination

Code	**Hourly emissions/flow measurement or estimation method**
1	Certified primary emission/flow monitoring system.
2	Certified backup emission/flow monitoring system.
3	Approved alternative monitoring system.
4	Reference method:
	SO_2: Method 6C.
	Flow: Method 2 or its allowable alternatives under appendix A to 40 CFR part 75.
	NOX: Method 7E.
	CO_2 or O_2: Method 3A.
5	For units with add-on SO_2 and/or NOX emission controls: SO_2 concentration or NOX emission rate estimate from preapproved parametric monitoring method.
6	Average of the hourly SO_2 concentrations, CO_2 concentrations, O_2 concentrations, NOX concentrations, flow rates, moisture percentages or NOX emission rates for the hour before and the hour following a

	missing data period.
7	Initial missing data procedures used. Either: (a) the average of the hourly SO_2 concentration, CO_2 concentration, O_2 concentration, or moisture percentage for the hour before and the hour following a missing data period; or (b) the arithmetic average of all NOX concentration, NOX emission rate, or flow rate values at the corresponding load range (or a higher load range), or at the corresponding operational bin (non-load-based units, only); or (c) the arithmetic average of all previous NOX concentration, NOX emission rate, or flow rate values (non-load-based units, only).
8	90th percentile hourly SO_2 concentration, CO_2 concentration, NOX concentration, flow rate, moisture percentage, or NOX emission rate or 10th percentile hourly O_2 concentration or moisture percentage in the applicable lookback period (moisture missing data algorithm depends on which equations are used for emissions and heat input).
9	95th percentile hourly SO_2 concentration, CO_2 concentration, NOX concentration, flow rate, moisture percentage, or NOX emission rate or 5th percentile hourly O_2 concentration or moisture percentage in the applicable lookback period (moisture missing data algorithm depends on which equations are used for emissions and heat input).
10	Maximum hourly SO_2concentration, CO_2 concentration, NOX concentration, flow rate, moisture percentage, or NOX emission rate or minimum hourly O_2 concentration or moisture percentage in the applicable lookback period (moisture missing data algorithm depends on which equations are used for emissions and heat input).
11	Average of hourly flow rates, NOX concentrations or NOX emission rates in corresponding load range, for the applicable lookback period. For non-load-based units, report either the average flow rate, NOX concentration or NOX emission rate in the applicable lookback period, or the average flow rate or NOX value at the corresponding operational bin (if operational bins are used).
12	Maximum potential concentration of SO_2, maximum potential concentration of CO_2, maximum potential concentration of NOX maximum potential flow rate, maximum potential NOX emission rate, maximum potential moisture percentage, minimum potential O_2 concentration or minimum potential moisture percentage, as determined using 40 CFR 72.2 and section 2.1 of appendix A to 40 CFR part 75 (moisture missing data algorithm depends on which equations are used for emissions and heat input).
13	Maximum expected concentration of SO2, maximum expected concentration of NOX, maximum expected Hg concentration, or maximum controlled NOX emission rate. (*See* 40 CFR 75.34(a)(5)).
14	Diluent cap value (if the cap is replacing a CO_2 measurement, use 5.0 percent for boilers and 1.0 percent for turbines; if it is replacing an O_2 measurement, use 14.0 percent for boilers and 19.0 percent for turbines).
15	1.25 times the maximum hourly controlled SO_2 concentration, Hg concentration, NOX concentration at the corresponding load or operational bin, or NOX emission rate at the corresponding load or operational bin, in the applicable lookback period (*See* 40 CFR 75.34(a)(5)).
16	SO_2 concentration value of 2.0 ppm during hours when only “very low sulfur fuel”, as defined in 40 CFR 72.2, is combusted.
17	Like-kind replacement non-redundant backup analyzer.
19	200 percent of the MPC; default high range value.
20	200 percent of the full-scale range setting (full-scale exceedance of high range).
21	Negative hourly CO_2 concentration, SO_2 concentration, NOX concentration, percent moisture, or NOX emission rate replaced with zero.
22	Hourly average SO_2 or NOX concentration, measured by a certified monitor at the control device inlet

	(units with add-on emission controls only).
23	Maximum potential SO_2 concentration, NOX concentration, CO_2 concentration, NOX emission rate or flow rate, or minimum potential O_2 concentration or moisture percentage, for an hour in which flue gases are discharged through an unmonitored bypass stack.
24	Maximum expected NOX concentration, or maximum controlled NOX emission rate for an hour in which flue gases are discharged downstream of the NOX emission controls through an unmonitored bypass stack, and the add-on NOX emission controls are confirmed to be operating properly.
25	Maximum potential NOX emission rate (MER). (Use only when a NOX concentration full-scale exceedance occurs and the diluent monitor is unavailable.)
26	1.0 mmBtu/hr substituted for Heat Input Rate for an operating hour in which the calculated Heat Input Rate is zero or negative.
32	Hourly Hg concentration determined from analysis of a single trap multiplied by a factor of 1.111 when one of the paired traps is invalidated or damaged (*See* OAR 340-228-0627(8))).
33	Hourly Hg concentration determined from the trap resulting in the higher Hg concentration when the relative deviation criterion for the paired traps is not met (*See* OAR 340-228-0627(8)).
40	Fuel specific default value (or prorated default value) used for the hour.
54	Other quality assured methodologies approved through petition. These hours are included in missing data lookback and are treated as unavailable hours for percent monitor availability calculations.
55	Other substitute data approved through petition. These hours are not included in missing data lookback and are treated as unavailable hours for percent monitor availability calculations.