

DEPARTMENT OF ENVIRONMENTAL QUALITY

DIVISION 223

REGIONAL HAZE RULES

340-223-0010

Purpose

OAR 340-223-0020 through 340-223-0050 establish requirements for certain sources emitting air pollutants that reduce visibility and contribute to regional haze in Class I areas, for the purpose of implementing Best Available Retrofit Technology (BART) requirements and other requirements associated with the federal Regional Haze Rules in 40 § CFR 51.308, as in effect on June 19, 2009.

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 & 468A

Stats. Implemented: ORS 468A.025

340-223-0020

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) “BART-eligible source” means any source determined by the Department to meet the criteria for a BART-eligible source established in the federal BART rule in 40 § CFR 51.308, Appendix Y to Part 51, “Guidelines for BART Determinations Under the Regional Haze Rule”, and in accordance with the Regional Haze Rule under 40 § CFR 51.308(e), as in effect on June 19, 2009.

(2) “Best Available Retrofit Technology (BART)” means an emission limitation based on the degree of reduction achievable through the application of the best system of continuous emission reduction for each pollutant that is emitted by an existing stationary facility. The emission limitation must be established, on a case-by-case basis, taking into consideration the technology available, the costs of compliance, the energy and nonair quality environmental impacts of compliance, any pollution control equipment in use or in existence at the source or unit, the remaining useful life of the source or unit, and the degree of improvement in visibility which may reasonably be anticipated to result from the use of such technology.

(3) “Deciview” means a measurement of visibility impairment. A deciview is a haze index derived from calculated light extinction, such that uniform changes in haziness correspond to uniform incremental changes in perception across the entire range of conditions, from pristine to highly impaired. The deciview haze index is calculated based on the following equation (for the purposes of calculating deciview, the atmospheric light extinction coefficient must be calculated from aerosol measurements):

$$\text{Deciview haze index} = 10 \ln_e (b_{ext}/10 \text{ Mm}^{-1})$$

Where b_{ext} = the atmospheric light extinction coefficient, expressed in inverse megameters (Mm^{-1}).

(4) “Subject to BART” means a BART-eligible source that based on air quality dispersion modeling causes visibility impairment equal to or greater than 0.5 deciview in any Class I area, at the 98th percentile for both a three-year period and one-year period.

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 & 468A

Stats. Implemented: ORS 468A.025

340-223-0030

BART Requirements for the Foster-Wheeler boiler at the Boardman Coal-Fired Power Plant (Federal Acid rain program facility ORISPL code 6106)

(1) Emissions limits:

(a) On and after July 1, 2011, nitrogen oxides emissions must not exceed 0.28 lb/mmBtu heat input as a 30-day rolling average and 0.23 lb/mmBtu heat input as a 12-month rolling average.

(A) If it is demonstrated by July 1, 2012 that the emission limits in (a) cannot be achieved with combustion controls, the Department may grant an extension of compliance to July 1, 2014.

(B) If an extension is granted, the nitrogen oxides emissions must not exceed 0.23 lb/mm Btu heat input as a 30-day rolling average on and after July 1, 2014.

(b) On and after July 1, 2014, sulfur dioxide emissions must not exceed 0.12 lb/mmBtu heat input as a 30-day rolling average.

(c) On and after July 1, 2014, particulate matter emissions must not exceed 0.012 lb/mmBtu heat input as determined by compliance source testing.

(d) The emission limits in (a) through (c) above do not apply during periods of startup or shutdown.

(2) Compliance demonstration. Using the procedures specified in section (3) of this rule:

(a) Compliance with a 30-day rolling average limit must be demonstrated within 180 days of the compliance date specified in section (1) of this rule.

(b) Compliance with a 12-month rolling average must be demonstrated within 12 months of the compliance date specified in section (1) of this rule.

(3) Compliance Monitoring and Testing

(a) Compliance with the emissions limits in (1)(a) and (b) must be determined with a continuous emissions monitoring system (CEMS) installed, operated, calibrated, and maintained in accordance with the acid rain monitoring requirements in 40 CFR Part 75 as in effect on June 19, 2009.

(A) The hourly emission rate in terms of lb/mmBtu heat input must be recorded each operating hour, including periods of startup and shutdown.

(B) The daily average emission rate must be determined for each boiler operating day using the hourly emission rates recorded in (A), excluding periods of startup and shutdown.

(C) 30-day rolling averages must be determined using all daily average emissions rates recorded in (B) whether or not the days are consecutive.

(D) 12-month rolling averages must be determined using calendar month averages based on all daily averages during the calendar month.

(b) Compliance with the particulate matter emissions limit in (1)(c) must be determined by EPA Methods 5 and 19 as in effect on June 19, 2009.

(A) An initial test must be conducted by January 1, 2015.

- (B) Subsequent tests must be conducted in accordance with a schedule specified in the Oregon Title V Operating Permit, but not less than once every 5 years.
- (C) All testing must be performed in accordance with the Department's Source Sampling Manual as in effect on June 19, 2009.
- (4) Notifications and Reports
- (a) The Department must be notified in writing within 7 days after any control equipment (including combustion controls) used to comply with emissions limits in section (1) begin operation.
- (b) For NO_x and SO₂ limits based on a 30-day rolling average, a compliance status report, including CEMS data, must be submitted within 180 days of the compliance dates specified in section (1).
- (c) If applicable, a compliance status report for the 12-month rolling average NO_x limit in section (1)(a) must be submitted by August 1, 2012.
- (d) For particulate matter, a compliance status report, including a source test report, must be submitted within 60 days of completing the initial compliance test specified in section (3)(b).
- 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 & 468A
Stats. Implemented: ORS 468A.025

340-223-0040

Additional NO_x Requirements for the Foster-Wheeler boiler at the Boardman Coal-Fired Power Plant (Federal Acid rain program facility ORISPL code 6106)

- (1) On and after July 1, 2017, nitrogen oxides emissions must not exceed 0.070 lb/mmBtu heat input, excluding periods of startup and shutdown.
- (a) Compliance with the NO_x emissions limit must be determined with a continuous emissions monitoring system in accordance with OAR 340-223-0030(2) and (3).
- (b) The Department must be notified in writing within 7 days after any control equipment used to comply with the emission limit begins operation.
- (c) A compliance status report, including CEMS data, must be submitted by January 1, 2018.
- 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 & 468A
Stats. Implemented: ORS 468A.025

340-223-0050

Federally Enforceable Permit Limits

- (1) Any BART-eligible source that causes visibility impairment less than 0.5 deciview in all Class I areas, at the 98th percentile for both a three-year period and one-year period, based on a federally enforceable permit limit or limits, is not subject to BART.
- (2) If a BART-eligible source's federally enforceable permit limit will be terminated, and as a result the source will be subject to BART, the source is required to submit a BART analysis and install BART as determined by the Department prior to terminating the federally enforceable permit limit.
- (3) The Foster-Wheeler boiler at The Amalgamated Sugar Company plant in Nyssa, Oregon (Title V permit number 23-0002) is a BART-eligible source, and air quality dispersion modeling

demonstrates that it would be subject to BART while operating. However, it is not operating as of June 19, 2009, and therefore is not subject to BART. Prior to resuming operation, the owner or operator of the source must either:

(a) Submit a BART analysis and install BART as determined by the Department by no later than July 1, 2014 or before resuming operation, whichever is later; or

(b) Obtain and comply with a federally enforceable permit limit assuring that the source's emissions will not cause the source to be subject to BART.

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 & 468A

Stats. Implemented: ORS 468A.025