



State of Oregon Department of Environmental Quality

Oregon Environmental Quality Commission Meeting

July 22-23, 2021

Rulemaking, Action Item J Regional Haze Division 223

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DEQ Recommendation to the EQC

DEQ recommends that the Environmental Quality Commission:

- Adopt the proposed rules in Attachment A as part of Chapter 340 of the Oregon Administrative Rules; and
- Approve incorporating these rule amendments into the Oregon Clean Air Act State Implementation Plan under OAR 340-200-0040; and
- Direct DEQ to submit the SIP revision to the U.S. Environmental Protection Agency for approval.

Proposed motion language:

I move that the Oregon Environmental Quality Commission:

- *Adopt the proposed rules seen in Attachment A of this staff report as part of Chapter 340 of the Oregon Administrative Rules; and*
- *Approve incorporating these rule amendments into the Oregon Clean Air Act State Implementation Plan under OAR 340-200-0040; and*
- *Direct DEQ to submit the SIP revision to the U.S. Environmental Protection Agency for approval.*

Introduction

The proposed rules pertain to Oregon's implementation of the federal 1999 Regional Haze Rule, amended in 2017. The purpose of the Regional Haze program is to improve visibility in wilderness areas and national parks with the goal to attain natural visibility conditions by 2064. The 1977 Clean Air Act designated certain wilderness areas and national parks as Class 1 areas and the 1990 Clean Air Act amendments mandated specific visibility protection in these areas. In Oregon, 11 wilderness areas and Crater Lake National Park are designated Class 1 areas. DEQ implements the Regional Haze Rule to address visibility in these areas and to protect and improve visibility in the Columbia River Gorge National Scenic Area.

Through cooperative agreements with federal agencies, Oregon monitors visibility at six locations near Class 1 areas that are part of a national network established in 1988. The objectives of the national monitoring program include establishing current visibility conditions; identifying the chemical species and emission sources responsible for existing human-made visibility impairment; and assessing progress towards natural visibility conditions.

DEQ completed Oregon's first Regional Haze State Implementation Plan (SIP) in 2010 and submitted the SIP to the U.S. Environmental Protection Agency. It was emissions reduction requirements in this plan that accelerated the closure of the Boardman coal-fired power plant. The federal Regional Haze rule requires states to update their plans periodically to make progress towards the goal of attaining natural visibility by 2064. DEQ reported progress on the first regional haze implementation period in 2017. DEQ is currently preparing a Round 2 Regional Haze Plan and intends to submit this second SIP to EPA, covering the years 2018 through 2028. In developing the Round 2 Regional Haze Plan, DEQ must consult with neighboring states, federal land management agencies and EPA, in addition to government-to-government consultation with Oregon's nine federally recognized tribal nations. DEQ has undertaken its responsibilities under the Regional Haze Rule through these consultations and following EPA's 2016, 2018 and 2019 Regional Haze guidance documents. DEQ is now working to prepare a SIP to implement Round 2 of regional haze and plans to complete and publicly notice the Regional Haze SIP in fall 2021 and then, after receiving direction from the Environmental Quality Commission, submit the SIP to EPA for approval.

These proposed rules respond to the requirement under the federal Regional Haze Rule that regional haze SIPs include enforceable emission reductions of haze-forming pollutants. The Round 2 regional haze pollutants are particulate matter, nitrogen oxides and sulfur dioxide. These pollutants are abbreviated as PM, NO_x, and SO₂. Each of these pollutants also have adverse health effects, such as exacerbating asthma and cardiopulmonary diseases, particularly in vulnerable populations such as older individuals, children and outdoor workers. Reducing these haze-forming pollutants to improve visibility also has direct public health co-benefits.

The proposed rules would codify in Division 223 the screening procedure and information collection that DEQ undertook, using existing authority in OAR 340-214-0110 to request information from certain sources, and would establish which sources DEQ will require to take action under Round 2 of regional haze. The proposed rules would also establish what action is required of those identified regulated sources through a number of compliance options. One compliance option in the proposed rules is to install pollution controls that reduce NO_x, SO₂ and

PM. Some control technologies may position a regulated source to comply with other DEQ programs or rules. For example, low NOx burners improve combustion efficiency, thereby reducing greenhouse gas emissions; and baghouses that capture PM also capture other toxic air contaminants regulated under Cleaner Air Oregon. With the proposed revisions to Division 223, DEQ also proposes that EQC repeal rules that implemented the first round of Regional Haze requirements and which are no longer relevant.

Statement of Need

What need would the proposed rule address?

The proposed rules would allow DEQ to implement the federal Regional Haze Rule and prepare a SIP that meets EPA's standards for approval. The Regional Haze Rule requires DEQ to develop a long term strategy to make reasonable progress toward natural visibility conditions by considering all sources of visibility impairment, including "major and minor stationary sources, mobile sources, and area sources [§51.308(d)(3)(iv)]." The Regional Haze Rule requires that the long term strategy must include "enforceable emissions limitations, compliance schedules, and other measures as necessary to achieve the reasonable progress goals [§51.308(d)(3)]." The proposed rules codify the process by which DEQ will comply with the Regional Haze Rule by analyzing haze-forming emissions affecting Class 1 areas, identifying all reasonable and technically feasible emission reductions and requiring those emission reductions that DEQ deems reasonable. EPA has clarified that a state may not reject feasible and reasonable emission reductions even when the state is making reasonable progress toward visibility goals; EPA refers to this concept as a reasonable rate of progress not being "safe harbor."¹

The proposed rules codify in Division 223 the screening procedure and processes DEQ followed to identify sources that must take action under Oregon's implementation of the Regional Haze Rule. The proposed rules also establish information gathering requirements and compliance options for those regulated sources identified through the screening procedure and processes. Additionally, the proposed revisions to Division 223 repeal rules that were only applicable to the first round of regional haze implementation and are no longer relevant. DEQ will issue orders to and enter agreements (issued as stipulated agreements and final orders) with regulated facilities to reduce Round 2 regional haze pollutant emissions based on the compliance options proposed to be codified in this rulemaking. DEQ must include orders and agreements to reduce Round 2 regional haze pollutants in the SIP submitted for EPA's approval in order to demonstrate federal enforceability of emission reductions.

How would the proposed rule address the need?

DEQ has completed its analysis of Round 2 regional haze pollutant emissions from stationary sources to be regulated under these proposed rules. The proposed rules would require the emissions reductions and controls that DEQ has deemed reasonable. The proposed rules, when codified, will support DEQ's issuance of orders and agreements to achieve Round 2 regional haze emission reductions and pollution control installation, will remove rules that are no longer applicable to any sources, and will allow DEQ to develop a SIP that DEQ deems sufficient to meet EPA's standards for approval. Orders and agreements included in the SIP will be federally enforceable, as the Regional Haze Rule requires.

¹ EPA (January 10, 2017) 82FR3078 at 3093. <https://www.govinfo.gov/content/pkg/FR-2017-01-10/pdf/2017-00268.pdf> accessed 05/26/21.

How will DEQ know the rule addressed the need?

DEQ will issue enforceable orders and agreements and include them in the Round 2 Regional Haze SIP. EPA's acceptance of the SIP will indicate that the proposed rules addressed the need.

Rules Affected, Authorities, Supporting Documents

Lead division

223

Program or activity

Regional Haze

Chapter 340 action

Adopt				
340-223-0100	340-223-0110	340-223-0120	340-223-0130	
Amend				
340-200-0040	340-223-0010	340-223-0020		
Repeal				
340-223-0030	340-223-0040	340-223-0050	340-223-0060	340-223-0070
340-223-0080				

Statutory Authority - ORS				
468.020	468.065	468A		

Statutes Implemented - ORS				
468A.035	468A.135	468A.025		

Documents relied on for rulemaking

Document title	Document location
Protection of Visibility: Amendments to Requirements for State Plans. US EPA (January 10, 2017) 82FR3078	https://www.govinfo.gov/content/pkg/FR-2017-01-10/pdf/2017-00268.pdf
Guidance on Regional Haze State Implementation Plans for the Second Implementation Period. US EPA (2019)	https://www.epa.gov/sites/production/files/2019-08/documents/8-20-2019_-_regional_haze_guidance_final_guidance.pdf
Western Regional Air Partnership, Technical Support System	https://views.cira.colostate.edu/tssv2/
Four Factor Analysis documents submitted by regulated Title V stationary sources	https://www.oregon.gov/deq/aq/Pages/haze-ffa.aspx
Regional Haze Rule (2017), 40 CFR 51.308	https://www.law.cornell.edu/cfr/text/40/51.308

Fee Analysis

This rulemaking does not increase or create new fees. Entities regulated by the proposed rules may incur DEQ fees associated with construction notices, construction permits, and permit revisions. DEQ includes fees among the fiscal impacts described later in this document in the Fiscal Impacts to Large Businesses section.

Statement of Fiscal and Economic Impact

Fiscal and Economic Impact

The proposed rules codify the methodology by which DEQ screened and identified facilities that must install pollutant controls or reduce emissions of Round 2 regional haze pollutants. The proposed rules would also establish what action is required of those identified regulated sources through a number of compliance options. The proposed rules have four elements:

- DEQ completes an initial screening based on facility emissions and distance to Class 1 areas to determine what facilities will be regulated under the proposed rules;
- Regulated facilities are required to undertake an analysis to determine the feasibility and cost-effectiveness of pollutant controls; and
- Regulated facilities may choose a compliance path and request to enter into an agreement with DEQ that will achieve required emission reductions by a time certain; or
- DEQ issues orders to regulated facilities to install pollution control equipment by a time certain.

DEQ has already implemented the first two elements of the proposed rules under its existing authority (OAR 340-214-0110). DEQ doesn't expect that facilities incurred costs at the initial screening because the initial screening does not involve any input from facilities but is calculated based on information already in DEQ's possession. DEQ expects that regulated facilities did incur costs when they were required to analyze the feasibility of pollution controls and will incur costs when they either agree to a compliance path or DEQ orders them to take certain compliance actions.

Statement of Cost of Compliance

State agencies

No state agencies are regulated facilities under the proposed rules, so this rulemaking does not impose any mandatory requirements for state agencies and, accordingly, does not impose any direct compliance costs.

DEQ and possibly LRAPA staff will implement the proposed rules. The fiscal effects on DEQ and LRAPA include dedicating resources such as permit writers, inspectors, compliance and enforcement staff, and management oversight. DEQ does not expect any other state agency to be fiscally affected by the proposed rules.

Local governments

No local governments are regulated facilities under the proposed rules, so this rulemaking does not impose any mandatory requirements for local governments and, accordingly, does not impose any direct compliance costs. DEQ does not expect local governments to be fiscally affected by the proposed rules.

Public

The rulemaking does not impose any mandatory requirements for the public at large and, accordingly, does not impose any direct compliance costs on the public. DEQ addresses the potential for the proposed rules to increase the cost of building materials in the Housing Cost section of this document.

DEQ expects the proposed rules to have indirect, broad and positive fiscal effects on the public, particularly people living or working near regulated facilities, through community health improvement and reduced health care costs. Pollution control equipment required through the proposed rules reduces the general public's exposure to Round 2 regional haze pollutants: NO_x, PM, and SO₂.

Short-term health effects of NO_x exposure include respiratory irritation, which can exacerbate existing respiratory diseases, like asthma. NO_x also leads to secondary formation of PM and ozone, each of which can lead to short-term respiratory impairment and long-term health effects, such as greater susceptibility to respiratory disease.² Adverse health effects of PM exposure include both respiratory and cardiovascular impairment and damage, up to premature death for vulnerable populations.³ Exposure to SO₂ causes short-term respiratory impairment and may lead to long-term respiratory damage and, as with NO_x and PM exposure, most adversely affects older people, children, and those with respiratory diseases.⁴

DEQ is not aware of calculated public health costs saved from this rulemaking but refers to information available through the Oregon Health Authority that estimates the health burden costs from diseases exacerbated by air pollution (Table 1). According to OHA 2017 data and analysis, lower respiratory disease is the fifth leading cause of death for Oregonians.⁵ A comprehensive 2002 study assessed the contribution of pollution to disease and found that 10-30% of asthma is attributable to outdoor air pollution (including both industrial and non-industrial sources). In the early 2000s, the yearly fraction of asthma cases that could be attributed to environmental factors cost the US between \$0.7 and \$2.3 billion. These cost

² Environmental Protection Agency. Basic information about NO₂. <https://www.epa.gov/no2-pollution/basic-information-about-no2#Effects>, accessed 05/06/21.

³ Ibid. Health and Environmental Effects of Particulate Matter. <https://www.epa.gov/pm-pollution/health-and-environmental-effects-particulate-matter-pm>, accessed on 05/06/21.

⁴ American Lung Association. Sulfur Dioxide. <https://www.lung.org/clean-air/outdoors/what-makes-air-unhealthy/sulfur-dioxide>, accessed on 05/06.21.

⁵ <https://www.oregon.gov/OHA/PH/ABOUT/Documents/indicators/leadingcausesofdeath.pdf>

estimates account for direct medical costs and lost productivity due to asthma-related premature deaths.⁶

Table 1 Public Health Costs from Diseases Exacerbated by Air Pollution			
Health Outcome	Description	Average Annual Cost of Each Case	Estimated Annual Medical Costs in Oregon^{7,8}
Asthma	Estimates for adults and children	\$2,740	\$411 million
Cardiovascular disease	Estimates for adults only - hypertension, stroke, coronary heart disease, congestive heart failure, other	\$2,220- \$16,760 (disease- specific)	\$3.6 billion ⁹

Large businesses - businesses with more than 50 employees

DEQ does not expect a fiscal impact for large businesses that are not regulated facilities. DEQ expects that large businesses that are regulated facilities will incur fiscal impacts from the proposed rules. The application of the initial screening in the proposed rules identified 32 large businesses as regulated facilities and DEQ required those facilities to conduct further analysis of their emissions and pollution controls. The proposed rules codify the requirement that those businesses conduct an analysis to identify emission control measures and to characterize four factors: cost, time to install, remaining useful life, and energy/non-air effects. DEQ expects regulated large businesses may use internal technical and professional resources or may contract with a consulting firm to fulfill the four factor analysis component of the proposed rules. DEQ estimates that a complex four factor analysis may require approximately 120 hours of professional time, at a rate of \$200/hr. In Table 2, DEQ provides a range of costs a large businesses may incur to complete a four factor analysis, either in-house or through a consultant. DEQ acknowledges that a facility may use both consultant and in-house resources to conduct a four factor analysis and therefore the costs in Table 2 may be additive.

⁶ Landrigan PJ, Schechter CB, Lipton JM, Fahs MC, Schwartz J. Environmental pollutants and disease in American children: estimates of morbidity, mortality, and costs for lead poisoning, asthma, cancer, and developmental disabilities. *Environ Health Perspect.* 2002 Jul;110(7):721-8.

⁷ Calculated using the CDC Chronic Disease Cost Calculator – see footnote 7 – based on 2008 prevalence and cost statistics and 2010 census data. Estimates are limited to medical expenditures and do not include indirect costs such as missed days of work and school.

⁸ Estimated medical treatment costs of chronic diseases, Oregon 2010.

https://www.oregon.gov/oha/PH/DISEASES/CONDITIONS/CHRONICDISEASE/DATAREPORTS/Documents/datatables/CDCC_2010.pdf

⁹ This cost estimate integrates costs of all cardiovascular disease without double counting costs of treatments for comorbid cardiovascular conditions.

Table 2	
Cost of Completing Four Factor Analysis	
Consultant Fees	Facility Professional Resources
\$5,000 - \$25,000	\$5,000 - \$25,000

The proposed rules allow regulated facilities two compliance options. A regulated facility may enter into an agreement with DEQ to timely reduce emissions or install controls that DEQ determines are cost-effective. DEQ will issue orders to regulated facilities that do not enter into agreements with DEQ to install pollution controls by a time certain. The costs of control installation and maintenance depends on the number and size of emission units. Table 3 lists estimated cost ranges for pollution control equipment that reduces emissions of Round 2 regional haze pollutants. DEQ estimated Table 3 costs from information and vendor quotes that facilities submitted in the response to the agency’s request that facilities provide this information under OAR 340-214-0110.¹⁰ DEQ drew costs for electrostatic precipitation and baghouses from the Cleaner Air Oregon rulemaking fiscal impact statement.¹¹

A facility may decide that replacing an emission unit or emissions units is more feasible or cost effective than installing controls or otherwise reducing emissions from that unit or units. The proposed rules allow DEQ to enter into settlement agreements where facilities agree to replace emission units by a time certain as a means to reduce emissions. The cost of replacing an emission unit or units will depend on multiple factors specific to individual facilities and their operational needs, most significantly based on the type of facility and emissions unit or units being replaced. Due to such variability among facility and emission unit types, DEQ is unable to quantify the potential magnitude of such costs at this time. DEQ would expect a facility to find unit replacement costs competitive with other compliance options if that facility was already planning unit replacement for another reason, and that a facility would not choose this option if the costs of another compliance option described in this fiscal impact statement were less than the costs of replacement. No facilities will be required to replace emissions units; this is an option made available to facilities in the proposed rules and that facilities may voluntarily choose as a compliance option. Thus, DEQ would expect that this option would not be likely to result in greater costs than the costs of other compliance options, and if it were, then it would be due to a facility’s voluntary choice to incur such costs, and not the least cost option under these proposed rules.

¹⁰ <https://www.oregon.gov/deq/air/Pages/haze-ffa.aspx>

¹¹ <https://www.oregon.gov/deq/Rulemaking%20Docs/cao-pn2notice.pdf>

**Table 3
Cost of Pollution Control Installation and Maintenance**

Pollution Control Device	Applicable to	Pollutant Controlled	Installation	Operations and Maintenance
Low NO _x Burner - LNB	combustion of natural gas	NO _x	\$10 - 45 thousand per MMBtu/hr of equipment capacity	\$1 - 5 thousand/year, per MMBtu/hr of equipment capacity
Selective Catalytic Reduction - SCR	combustion	NO _x	\$3 - 30 million	\$0.1 - 4 million/year
Selective Non-Catalytic Reduction - SNCR	combustion	NO _x	\$1 - 6 million	\$50 - 500 thousand/year
Electrostatic Precipitation - ESP	equipment that generates fine particulate matter	PM	\$0.3 - 8 million	\$0.1 - 8 million/year
Catalytic Ceramic Filters - CCF	glass furnaces	NO _x , PM10, SO ₂	Approximately \$5,000 per ton of pollutant removed	
Ultra Low Sulfur Diesel Fuel - ULSD	equipment formerly using high-sulfur #6 Fuel Oil as backup	SO ₂	No additional cost. No additional changes to site.	
Baghouse	dust-generating equipment	PM10	\$0.3 - 20 million	\$0.1 - 7 million/year
Low Emission Combustion - LEC	reciprocating natural gas compressor engines	NO _x	\$2 - 5 million per engine	\$2 - 300k/year per engine

Under the proposed rules, regulated facilities may enter into stipulated agreements with DEQ or DEQ issues an order to the facility requiring the facility to reduce emissions or install controls by a time certain. To fulfill the agreements or comply with DEQ's orders, regulated facilities may incur fees for permit revisions. There may also be costs to some facilities for a notice to construct and, under certain conditions, a construction Air Contaminant Discharge permit. Table 4 lists the permitting costs that regulated facilities may incur. DEQ also included consulting costs in Table 4 based on a comment received in the Fiscal Advisory Committee meeting.

Multiple Fiscal Advisory Committee members also recommended that DEQ acknowledge the potential adverse environmental effects and cost that facilities may incur by installing certain pollution controls, such as Selective Catalytic Reduction and Selective Non-Catalytic Reduction. FAC members commented that these technologies require additional electricity use, result in greater greenhouse gas emissions, and may lead to ammonia emissions; ammonia is a hazardous air pollutant subject to regulation under Cleaner Air Oregon – DEQ's air quality permitting program for toxic air contaminants.

DEQ acknowledges that some, though not all, pollution controls for NO_x, PM and SO₂ will increase a facility’s energy use and energy costs. The proposed rules would codify the Four Factor Analysis process required by the Regional Haze Rule and used to identify reasonable and feasible controls. The fourth factor of this analysis is “energy and non-air effects.” The proposed rules allow for energy use, and associated costs, to be considered and balanced among other factors in identifying feasible and reasonable controls.

DEQ would expect energy use, additional greenhouse gas emissions and cost to vary depending on several facility-specific and control-specific characteristics. For example, some control devices may reduce greenhouse gas emissions by tuning a boiler to run more efficiently; some may increase greenhouse gas emissions if emissions require reheating to reach reaction temperature (e.g. SCR). Even if additional heat is required, in some cases, that could be supplied by waste heat, not requiring more energy use.

Regarding ammonia emissions from SCR and SNCR, some systems include ammonia monitoring and adjustment to minimize usage and “slip.” According to DEQ Cleaner Air Oregon technical staff, some sources may be required to monitor, report and potentially perform mass balance calculations for ammonia that had not been required before installing SCR or SNCR. DEQ would not expect ammonia slip to contribute significantly to the toxic air contaminant risk from a facility’s emissions as ammonia has low toxicity. DEQ concludes that potentially adverse environmental effects and costs that a facility may incur from operating SCR and SNCR, including additional energy use and permit compliance, would not necessarily eliminate these technologies as feasible and cost effective controls.

Table 4 Permitting Costs			
Notice to Construct	Construction ACDP*	Specific Activity Fees	
		Existing Source Permit Revisions 340-220-0050(2)(a)	
\$720	\$14,400	Administrative	\$510
		Simple	\$2,041
		Moderate	\$15,306
		Complex	\$30,612
Consulting Fees		\$10,000 - \$30,000	

* If Construction ACDP fulfills Title V format, procedures and public notice requirements, DEQ may revise the Title V permit through an administrative amendment.

Small businesses – businesses with 50 or fewer employees

No small businesses are regulated facilities under the proposed rules, so this rulemaking does not impose any mandatory requirements for small businesses and, accordingly, does not impose any direct compliance costs.

Some small businesses may be indirectly affected by the proposed rules. DEQ anticipates that such small businesses will see a positive fiscal impact. DEQ does not currently know how many small businesses would be impacted by the proposed rules because DEQ does not have information about the extent to which different kinds of small businesses benefit from visitors to Class 1 areas. The types of small businesses that may be impacted by the proposed rules include those in the tourism, leisure and hospitality industry in areas of the state welcoming visitors to wilderness areas, the Columbia River Gorge National Scenic Area, and Crater Lake National Park. National Parks and wilderness areas attract tens to hundreds of thousands of visitors each year. According to the US Forest Service National Visitation Monitoring system, in 2016, more than 200,000 people visited the Mt. Hood Wilderness area and more than 3 million visited the Columbia Gorge National Scenic Area.¹² In 2019, approximately 27,000 people visited wilderness areas in the Wallowa Whitman National Forest,¹³ the largest of which are Eagle Cap and Hells Canyon (in 2016 and 2019, respectively) and more than 700,000 visited Crater Lake National Park.¹⁴

In Oregon, the tourism industry is mainly composed of small businesses, according a recent report from the Oregon Employment Department, “Of Oregon’s 204,612 leisure and hospitality jobs in March 2020, 125,778 were in establishments with 10 to 49 workers.”¹⁵

According to the Oregon Employment Department, in 2019, approximately \$5 billion in wages were paid within the Leisure and Hospitality industry sector, employing more than 200,000 people in more than 14,000 businesses. Counties containing Class 1 wilderness areas and national parks, are among those deriving a relatively high percentage of employment income from travel and tourism, compared to all industry totals.¹⁶ Note in Figure 1 relatively high leisure and hospitality quotients in Hood, Deschutes, Klamath and Wallowa Counties.¹⁷

¹² US Forest Service, National Visitor Use Monitoring
<https://apps.fs.usda.gov/nvum/results/A06022.aspx/FY2016>

¹³ *Ibid.*

¹⁴ <https://www.nationalparked.com/crater-lake/visitation-statistics>, accessed on 05/06/21.

¹⁵ Oregon Employment Dept. (March 2021), <https://www.qualityinfo.org/-/oregon-s-leisure-and-hospitality-industry>

¹⁶ *Ibid.*

¹⁷ *Ibid.*

Figure 1: Leisure and hospitality quotients in Oregon counties. Source: Oregon Employment Department



a. Estimated number of small businesses and types of businesses and industries with small businesses subject to proposed rule.

None of the businesses regulated by the proposed rules are small businesses. DEQ confirmed this through a review of the US business database, Reference USA.com.

b. Projected reporting, recordkeeping and other administrative activities, including costs of professional services, required for small businesses to comply with the proposed rule.

None

c. Projected equipment, supplies, labor and increased administration required for small businesses to comply with the proposed rule.

None

d. Describe how DEQ involved small businesses in developing this proposed rule.

DEQ did not involve small businesses in developing the proposed rules because no small businesses are regulated by the proposed rules.

Documents relied on for fiscal and economic impact

Document title	Document location
US Business Database	ReferenceUSA.com
Oregon Employment Department. Oregon Leisure and Hospitality Industry (Tauer, G., 2021)	https://www.qualityinfo.org/-/oregon-s-leisure-and-hospitality-industry
Four Factor Analysis Documents	https://www.oregon.gov/deq/air/Pages/haze-ffa.aspx
DEQ Fiscal Impact Statement, Cleaner Air Oregon Rulemaking	https://www.oregon.gov/deq/Rulemaking%20Docs/cao-pn2notice.pdf
Oregon Health Authority. Estimated medical treatment costs of chronic diseases, Oregon 2010	https://www.oregon.gov/oha/PH/DISEASESCONDITIONS/CHRONICDISEASE/DATAREPORTS/Documents/datatables/CDCC_2010.pdf
US Forest Service. National Visitor Use Monitoring System	https://apps.fs.usda.gov/nvum/results/A06022.aspx/FY2016
Environmental Protection Agency. Basic information about NO2.	https://www.epa.gov/no2-pollution/basic-information-about-no2#Effects .
Environmental Protection Agency. Health and Environmental Effects of Particulate Matter.	https://www.epa.gov/pm-pollution/health-and-environmental-effects-particulate-matter-pm .
American Lung Association. Sulfur Dioxide.	https://www.lung.org/clean-air/outdoors/what-makes-air-unhealthy/sulfur-dioxide .
Oregon Health Authority. Leading Causes of Death.	https://www.oregon.gov/OHA/PH/ABOUT/Documents/indicators/leadingcausesofdeath.pdf
Environmental pollutants and disease in American children: estimates of morbidity, mortality, and costs for lead poisoning, asthma, cancer, and developmental disabilities. Landrigan PJ, Schechter CB, Lipton JM, Fahs MC, Schwartz J.	J. Environ Health Perspect. 2002 July; 110(7):721-8.

Advisory committee fiscal review

DEQ appointed a fiscal advisory committee.

As ORS 183.333 requires, DEQ asked for the committee's recommendations on:

- Whether the proposed rules would have a fiscal impact;
- The extent of the impact; and
- Whether the proposed rules would have a significant adverse impact on small businesses; if so, then how DEQ can comply with ORS 183.540 reduce that impact.

The committee reviewed the draft fiscal and economic impact statement and its findings are stated in the approved minutes dated May 17, 2021. Committee members generally agreed that the proposed rules will have a fiscal impact on large businesses that are Title V facilities to be regulated by these proposed rules. Committee members had differing opinions on the extent of the fiscal impact and multiple committee members stated that the draft fiscal impact statement did not contain sufficient information for committee members to formulate an opinion on the extent of fiscal impact. Multiple committee members stated that they would not expect the proposed rules to have a significant adverse impact on small business because the proposed rules only regulate Title V permitted sources. Multiple committee members stated they were uncertain if the proposed rules would have a significant adverse impact on small business or that the draft FIS did not include sufficient information to answer the question.

Additional highlights of the committee deliberations and comments are:

- Multiple committee members stated that the information that DEQ provided – a summary table of potential control technology and its cost ranges – is insufficient without information that reveals which facilities will install which controls.
- Some members stated DEQ hasn't provided sufficient information for the committee to determine extent of fiscal impact. One member stated, in order-of-magnitude numbers, the fiscal impact of the proposed rules is tens to hundreds of millions of dollars.
- Multiple committee members stated there is uncertainty about the extent of the fiscal impact and for whom that may be adverse. Members stated there is uncertainty whether or not a business that is not regulated, such as a permitted industry that is not Title V, would sustain any fiscal impact.
- Multiple committee members stated that the fiscal impact statement only addresses costs of controls at facilities, but doesn't address cost to the state economy and business potentially indirectly affected by the proposed rules – a “ripple” or “trickle down” effect.
- Multiple committee members stated that the companies to be regulated under the proposed rules are located in rural areas. Members stated that the millions of dollars for pollution control would otherwise be put into the local economy through plant expansions and improvements, thereby indirectly supporting small businesses in the area. One member recommended that DEQ contract with an economics firm to analyze the effects of the proposed rules on rural economies.
- Multiple members stated that among fiscal impacts, DEQ should consider associated public health benefits of the proposed rules, such as fewer asthma attacks and less exacerbation of chronic obstructive pulmonary disease.
- Some committee members stated that the fiscal impacts sustained by regulated industry would be disproportionate to the facilities' impacts on regional haze, as measured by visibility.
- One committee member stated that large businesses cannot always pass additional cost along to customers, particularly in a commodity market. Even within a large

business, each individual facility, such as a mill, has to make a contribution and money spent on pollution control at the facility cuts into profit. The costs from the proposed rules may or may not cause the industry to shut down or sell an individual mill – those decisions would depend on the financial health of that mill.

- Multiple committee members encouraged fiscal impact assessment on a broader scope to encompass public health savings, watershed protection in national parks and wilderness, impacts on tourism, and health and economic benefit for people who live and work in the surrounding areas.
- One committee member stated that some pollution control measures, specifically SNCR and SCR, increase pollution in other media, require more electricity use, increase greenhouse gases from combustion, and add ammonia, a hazardous air pollutant. The committee member recommended that DEQ consider these greenhouse gas, electricity and hazardous air pollutants costs.
- One member stated that air quality and visibility has been studied extensively in the Columbia River Gorge National Scenic Area and large stationary sources as well as mobile sources are large contributors to haze.
- Multiple committee members stated that either there were no direct effects from the proposed rules on small businesses, since they were not regulated by the proposed rules, or that fiscal effects on small business were unclear. One committee member stated small business effects were indeterminate because DEQ had not provided a list of which facilities will be installing controls.
- One committee member stated that one way for DEQ to mitigate any potential effect on small business would be to compare Oregon's regional haze screening procedures to those of surrounding states and comport with them.
- One committee member recommended that DEQ consider the benefits to small businesses that install and maintain pollution controls

DEQ allowed committee members to submit additional information or written comments to DEQ by close of business on May 24, 2021. Three committee members submitted written comments.

Based on Fiscal Advisory Committee deliberations and comments received, DEQ added the following information to the fiscal impact statement that was incorporated into the public notice:

- Acknowledged additive consultant and in-house costs for four factor analysis in Table 2.
- Added consultant fees to permitting costs in Table 4.
- Added a discussion to summarize potential environmental and energy costs of installing SNCR or SCR pollution controls.
- Attachment: Table A-1, Facilities regulated by the proposed rule based on the initial screening.
- Attachment: Table A-2, DEQ findings for facilities after initial screening.

Housing Cost

As ORS 183.534 requires, DEQ evaluated whether the proposed rules would have an effect on the development cost of a 6,000-square-foot parcel and construction of a 1,200-square-foot detached, single-family dwelling on that parcel. A memorandum¹⁸ pertaining to a study conducted by the University of Oregon to support Oregon Department of Land Conservation and Development rulemaking describes the major factors influencing the cost of residential housing construction. Cost components include land, material and labor and regulatory costs such as permits, compliance with zoning requirements and system development charges.

DEQ acknowledges the proposed rules have the potential to affect housing development costs because some of the large businesses regulated by the proposed rules are in the lumber products industry or otherwise produce building materials. DEQ would not expect any increase in regulatory compliance costs for the lumber industry, over current compliance costs, to be significant enough to affect the cost of building materials. DEQ does not expect the proposed rules to have any effect on the major cost components of residential construction such as cost of land, labor, or permitting or zoning regulations.

¹⁸ University of Oregon, 2016. Cost Components of Housing. https://www.oregon.gov/lcd/UP/Documents/UO-Cost_Components.pdf accessed on 05/07/21.

Federal Relationship

The proposed rules add requirements additional to those in federal requirements. The proposed rules are exclusively applicable to Oregon's implementation of the federal Regional Haze Rule and implement Oregon statutes that authorize DEQ to regulate air pollutant emission sources.

Land Use

Considerations

In adopting new or amended rules, ORS 197.180 and OAR 340-018-0070 require DEQ to determine whether the proposed rules significantly affect land use. If so, DEQ must explain how the proposed rules comply with state wide land-use planning goals and local acknowledged comprehensive plans.

Under OAR 660-030-0005 and OAR 340 Division 18, rules affect land use if:

- The statewide land use planning goals specifically refer to the rule or program, or
- The rule or program is reasonably expected to have significant effects on:
- Resources, objects, or areas identified in the statewide planning goals, or
- Present or future land uses identified in acknowledge comprehensive plans

DEQ determined whether the proposed rules involve programs or actions that affect land use by reviewing its Statewide Agency Coordination plan. The plan describes the programs that DEQ determined significantly affect land use. DEQ considers that its programs specifically relate to the following statewide goals:

Goal	Title
5	Natural Resources, Scenic and Historic Areas, and Open Spaces
6	Air, Water and Land Resources Quality
11	Public Facilities and Services
16	Estuarine Resources
19	Ocean Resources

Statewide goals also specifically reference the following DEQ programs:

- Nonpoint source discharge water quality program – Goal 16
- Water quality and sewage disposal systems – Goal 16
- Water quality permits and oil spill regulations – Goal 19

Determination

DEQ determined that these proposed rules do not significantly affect land use under OAR 340-018-0030 or DEQ's State Agency Coordination Program.

EQC Prior Involvement

DEQ has presented progress on Round 2 regional haze program implementation through informational items on the November 2019 and January 2021 EQC agendas.

Advisory Committee

Background

DEQ convened a Fiscal Advisory Committee for this rule proposal development. The committee met on May 17, 2021, and deliberated on the fiscal impacts of the proposed rules. DEQ posted a summary and minutes from the committee's deliberations on the Regional Haze 2021 rulemaking website. DEQ includes a summary of the committee's deliberation and recommendations in the Statement of Fiscal and Economic Impact section of this notice.

The committee members were:

Regional Haze 2021 Division 223 Rulemaking Fiscal Advisory Committee	
Name	Representing
Caleb Minthorn – alternate	Confederated Tribes of the Umatilla Indian Reservation
Russell Strader	Industry (Boise Cascade)
Chad Darby	Industry (consulting)
Kathryn Van Natta	Industry (Northwest Pulp & Paper Assoc.)
Daniel Orozco	Environmental advocacy (National Parks Conservation Association)
Joshua Jenkins - alternate	Environmental advocacy (National Parks Conservation Association)
Michael Lang	Environmental advocacy (Friends of the Gorge)
Jamie Pang	Environmental, Public Health advocacy (Oregon Environmental Council)
Carrie Nyssen	Public Health advocacy (American Lung Association)
Bob Hackett	Tourism sector (Travel Southern Oregon)

Meeting notifications

To notify people about the advisory committee's activities, DEQ:

- Sent GovDelivery bulletins, a free e-mail subscription service, to the following lists:
 - Rulemaking
 - Air Quality Permits
 - Regional Haze
- Added advisory committee announcements to DEQ's calendar of public meetings at [DEQ Calendar](#).
- Provided notice of meetings and links to committee information through postings on Facebook and Twitter.

Committee discussions

The committee's recommendations are described under the Statement of Fiscal and Economic Impact section of this staff report.

Public Engagement

Public notice

DEQ provided notice of the proposed rulemaking and rulemaking hearing by:

- On May 28, 2021, filing notice with the Oregon Secretary of State for publication in the June 2021 Oregon Bulletin;
- Notifying the EPA by mail;
- Posting the Notice, Invitation to Comment and Draft Rules on the web page for this rulemaking, located at: [Regional Haze 2021](#);
- Emailing approximately 22,557 interested parties on the following DEQ lists through GovDelivery:
 - Rulemaking
 - DEQ Public Notices
 - Air Quality Permits
 - Regional Haze
- Emailing the following key legislators required under [ORS 183.335](#):
 - Senate President Peter Courtney
 - Senator Lee Beyer
 - House Speaker Tina Kotek
 - Representative Pam Marsh
- Emailing advisory committee members
- Posting on the DEQ event calendar: [DEQ Calendar](#)

Public Hearing

DEQ held one public hearing. DEQ received three comments at the hearing. Later sections of this document include a summary of the comments received during the hearing and the public comment period, DEQ's responses and a list of the commenters. Original comments are on file with DEQ.

Presiding Officers' Record

Hearing 1

Date	June 28, 2021
Place	Remotely held via Zoom
Start Time	5:30 p.m.
End Time	6:30 p.m.
Presiding Officer	Meenakshi Rao

Presiding Officer Report

The presiding officer convened the hearing, summarized procedures for the hearing, went over logistics for working with the platform of the remote meeting and explained that DEQ was recording the hearing. The presiding officer introduced DEQ staff present and asked if tribal government representatives or elected officials were present. DEQ staff presented an informational presentation followed by a question and answer period. In the informational presentation, as Oregon Administrative Rule 137-001-0030 requires, DEQ staff summarized the content of the rulemaking notice.

The presiding officer opened the formal public hearing and asked people who wanted to present verbal comments to state their names, associations and emails. The presiding officer advised all attending parties interested in receiving more information about the rulemaking to visit the rulemaking website where they could sign up for GovDelivery email notices.

Approximately 12 people attended by teleconference or webinar. Three people commented orally.

Summary of Public Comments and DEQ Responses

Public comment period

DEQ accepted public comment on the proposed rulemaking from May 28, 2021, until 4 p.m. on June 30, 2021.

For public comments received by the close of the public comment period, including those received at the public hearing, the following section summarizes comments received with cross references to commenter numbers. DEQ's response follows the summary. DEQ has excerpted and summarized the comments; Original and complete comments are on file with DEQ.

Comment 1

DEQ received multiple comments in this category, from approximately 240 individual commenters, commenter #4 and commenter #8.

Oregon's Regional Haze Rule is an incredibly important tool in protecting air quality and visibility in Crater Lake National Park, wilderness areas and the Columbia River Gorge National Scenic Area. Because regional haze also effects air quality in communities outside of these areas, reducing haze-causing pollutants benefits human health by reducing emissions that cause lung and heart disease.

While I applaud the efforts of the Department of Environmental Quality in revising Oregon's Regional Haze Rule, I am very concerned that the draft rule does not address the need for emission controls for all major sources contributing to haze in the National Scenic Area, including one of the largest Concentrated Animal Feeding Operations (CAFO) in the country located in Boardman, Oregon. This CAFO is responsible for emitting large amounts of ammonium nitrate. The DEQ has determined that "over 50% of visibility impairment in the Columbia River Gorge can be attributed to ammonium nitrate." This CAFO should be included in the list of facilities required to develop pollution control plans for round 2 of the Regional Haze Program.

I urge the DEQ to require emission controls for all major sources contributing to haze in Oregon's only national park, its wilderness areas and the Columbia River Gorge National Scenic Area in the revised Regional Haze Rule.

DEQ Response

DEQ does regulate the facility the commenters refer to through a Title V permit for electric power generation from biogas combustion. The combined permitted Round 2 regional haze pollutants (NO_x, SO₂, PM) from that facility total 92 tons/year. Based on those total emissions and the distance to the nearest Class I wilderness areas (Mount Hood, ~140 km; Eagle Cap, ~160 km, Hells Canyon, ~241 km), the Q/d ratio would be less than 5 and the proposed rules would not require the facility to conduct four factor analysis, reduce emissions or install controls.

DEQ does not regulate air emissions from the agricultural operations at the facility – as they are not covered under the source’s stationary source permit. DEQ understands commenters are registering concern about that lack of regulation but the scope of these proposed rules encompasses only stationary sources that DEQ regulates and has the authority to require emission reductions. Agricultural operations, including those occurring at CAFOs are not stationary sources.

DEQ agrees with commenters that area emissions from agricultural operations contribute to regional haze in the Columbia River Gorge National Scenic Area and Class 1 areas in Oregon. The EQC is prohibited from regulating most emissions from agricultural operations – but does have authority to implement recommendations from the 2008 Dairy Air Quality Task Force. DEQ has twice sought funding from the Oregon Legislature to begin implementing those recommendations, but was denied both times. Regulations to control emissions from agricultural operations, such as CAFOs, are not included in Division 223 (which is specific to stationary sources). DEQ is evaluating strategies to reduce haze-forming emissions from area sources, including agricultural operations, for inclusion in the Regional Haze State Implementation Plan, which will be released for public comment in the fall of 2021.

DEQ did not change the proposed rules in response to this comment.

Comment 2

DEQ received one comment in this category from commenter #2.

Air pollution is nothing new to the Gorge (e.g. aluminum plants, proposed zirconium plant). But, because the air isn't killing all the cherry trees in the Gorge there is no reason to believe that we have clean air. Please address air pollution and require measurements and mitigation. It's required by law and there is no excuse for allowing air quality to deteriorate under our watch.

DEQ Response

DEQ has proposed the Regional Haze Division 223 rules to address the largest stationary sources contributing to haze-forming pollutants that affect visibility in the Columbia Gorge and Oregon’s Class 1 wilderness areas and Crater Lake National Park. Should the EQC approve the proposed rules, DEQ will include facility emission reduction orders in the Regional Haze State Implementation Plan; the emission reductions would then become enforceable not only by Oregon DEQ but by the US Environmental Protection Agency.

DEQ did not change the proposed rules in response to this comment.

Comment 3

DEQ received one comment in this category from commenter #3.

The Cully Air Action Team (CAAT) is an organization of community members from Portland’s Cully neighborhood that focuses on addressing ongoing air pollution and toxicity in the community. CAAT is a part of the Cully Association of Neighbors.

CAAT is writing in support of proposed revised Regional Haze rulemaking. The Cully neighborhood is in the Columbia Slough watershed and is very aware of how airborne industrial pollutants affect the scenic quality of Columbia River Gorge and other areas. We are working in our community to increase corporate social responsibility for polluting industries, including the Title V polluter Owens-Brockway at 9710 NE Glass Plant Road.

The Columbia River Gorge is one of the emblematic scenic gems in the Pacific Northwest, if not the entire nation. The historical significance of this area spans not just the last 150 years, but prior centuries of indigenous cultures.

For these reasons, a growing eco-tourism economy, and the importance of a clean environment for salmon, riparian creatures, and other wildlife, CAAT asks the DEQ and EQC to adopt the proposed revised Regional Haze rules. DEQ's and EQC's commitment to environmental justice must not allow the replication of damages caused by former negligence, or by other entities with less foresight and less commitment.

DEQ Response

The facility the commenter refers to is a Title V facility emitting Round 2 regional haze pollutants and would be regulated under the proposed rules, should the EQC adopt the rules. Should the EQC approve the proposed rules, DEQ will include facility emission reduction orders in the Regional Haze State Implementation Plan; the emission reductions would then become enforceable by both Oregon DEQ and the US Environmental Protection Agency.

DEQ did not change the proposed rules in response to this comment.

Comment 4

DEQ received two comments in this category from commenter #4, one written and one orally at the public hearing. Multiple commenters in Comment #1 also expressed concerns with one element of Comment #4 (haze-forming emissions from agricultural operations).

Friends of the Columbia Gorge ("Friends") is a non-profit organization with approximately 6,000 members. Friends is dedicated to protecting and enhancing the scenic, cultural, recreation, and natural resources of the Columbia River Gorge National Scenic Area ("National Scenic Area" or "Gorge"). Friends' membership lives, works, and plays in the Columbia River Gorge and is adversely affected by the impacts of haze in the National Scenic Area.

The Columbia River Gorge National Scenic Area is already severely impaired by air pollution, especially nitrogen oxides (NOx) and particulate pollution. [US Forest Service and National Park Service studies cited] The Forest Service has documented that visibility impairment occurs on at least 95% of the days monitored.

Deposition of pollutants also has profound negative impacts on ecosystems. Studies demonstrate that in the Western United States, some aquatic and terrestrial plant and microbial communities are significantly altered by nitrogen deposition. Sulfur and nitrogen

concentrations in lichen tissue found in the Gorge are comparable to those found in lichen tissue sampled in large urban areas. Nitrogen deposition rates in the Gorge are comparable to the most polluted areas in the United States. Sulfur dioxide also contributes to acid rain, which threatens ecosystems and Native American rock paintings.

Particulate matter pollution also threatens human health and welfare. In fact, when reviewing the National Ambient Air Quality Standards for PM_{2.5}, the EPA found that there is no level of particulate matter pollution at which there are no human health effects. Particulate matter pollution causes a variety of adverse health effects, including premature death, heart attacks, strokes, birth defects, asthma attacks, low birth weights, damaged lung function, and increased risks of heart attack and premature death.

[Oral comment] Commenter is concerned that proposed rules do not comply with Regional Haze Rule and Scenic Area Act.

DEQ must comply with all federal, interstate, and state laws that ensure that air quality in the National Scenic Area is “protected and enhanced” (e.g. National Scenic Area Management Plan, Scenic Area Act, Columbia River Gorge Air Study and Strategy). DEQ is required by ORS 196.155 to adhere to the adopted thresholds in the Strategy. DEQ cannot use the conditions of the airshed before the cessation of operations at PGE’s Boardman coal-fired power plant as its baseline. Instead, DEQ must ensure continued improvement at all times.

In addition, the State of Oregon is charged with the responsibility of adopting a comprehensive air quality strategy for the Columbia River Gorge that addresses all sources of air pollution and reporting annually on its progress. DEQ has not been providing the reports required by law and has thus not been fulfilling its mandate.

[A cited study found that] even when Boardman was shut down for maintenance, air quality issues persisted in the NSA and “NH₃ emissions from the nearby dairy industry [we]re likely a contributing factor.” DEQ has determined that “over 50% of the visibility impairment in the Columbia River Gorge can be attributed to ammonium nitrate.” One of the largest Concentrated Animal Feeding Operations in the country, with 70,000 head of cattle, is located east of the boundary of the Columbia River Gorge National Scenic Area. This facility should be considered for inclusion in the Regional Haze Rule. Emissions from all major sources, including agricultural sources, must be reduced on an ongoing basis to comply with DEQ’s obligations, including the National Scenic Area Act.

[Oral comment] The largest CAFO facility in the Gorge is a Title V facility and DEQ’s consideration of the facility for Regional Haze regulations should include the entire facility’s operations, not only the digester.

DEQ Response

DEQ has proposed these rules – applicable to large stationary sources that emit Round 2 regional haze pollutants – as one strategy among several more strategies that DEQ will include in the Regional Haze State Implementation Plan, which DEQ intends to release for public comment this fall of 2021. DEQ intends that the multiple strategies that DEQ will

implement over this Regional Haze period (2018 – 2028) will reduce haze-forming emissions from anthropogenic area sources such as mobile sources, prescribed fires, residential wood heating, and agricultural operations. For the particular reasons DEQ has not proposed regulating the CAFO the commenter references under these proposed rules, please see DEQ's response to Comment #1.

The federal Regional Haze Rule requires that states demonstrate reasonable progress toward natural visibility conditions by 2064 in Regional Haze State Implementation Plans they submit to EPA for approval. DEQ will include monitoring and modeling data that the agency is using to demonstrate reasonable progress in its Regional Haze Plan; DEQ will release this Plan for public review and comment in the fall of 2021.

DEQ agrees with the commenter that continued visibility improvement is the goal in the Gorge and that Gorge Commission adopted the Columbia River Gorge Air Study and Strategy to monitor, evaluate and improve Gorge visibility through the framework of the Regional Haze program. DEQ acknowledges inadequate frequency of the agency's reports to the Columbia River Gorge Commission. DEQ did reach out to the Commission during this Regional Haze Plan development period and most recently presented to the Commission, along with the Southwest Washington Clean Air Agency, in December of 2020.

DEQ did not change the proposed rules in response to this comment.

Comment 5

DEQ received two comments in this category from commenter #5, orally at the public hearing, and commenter #10, in writing.

[Commenter #5] We understand that DEQ is eager to work with industry to find solutions that benefit everyone involved, but we want to make sure that the primary goal of the upcoming State Implementation Plan is to sharply reduce pollution. The benefits of regional haze pollution reduction are numerous from increased tourism dollars going towards public lands and surrounding communities to cleaner air for industry employees. The Q/d screening threshold and cost-effectiveness thresholds in the proposed rules are reasonable steps to reduce as much pollution as we can during this round of regional haze planning. Regional haze intersects with other environmental issues, notably the deleterious effects on public health, such as respiratory and cardiovascular health, especially to socioeconomically vulnerable communities. Related, Regional haze is not separate from the climate crisis; as we experience record high temperatures in the Northwest and high levels of particulate matter in cities, we have to address these environmental issues when and where we can. It's no secret that communities impacted first and worst by climate impacts are often on the front lines of regional haze pollution, as well. In fact, it's in part due to cumulative effects of environmental pollution, like air pollution, that some communities are made more vulnerable to the effects of climate change than others. We believe DEQ is being pragmatic by including an environmental justice analysis into regional haze planning because air quality, public health, and community well-being do not exist in silos. We support steps DEQ is taking to ensure the sharpest pollution reduction we can during this round of regional haze planning.

The aesthetic viability of our public lands depends on it but so does the health and well-being of our communities.

[Commenter #10] If this heat event isn't enough to convince humans of our impending doom then we are dealing with humans who believe that there is another planet to go to. What will it take before we admit what we intuitively know? Pain. Unfortunately, that is what to come.

DEQ Response

DEQ agrees that the purpose of Regional Haze regulations is to reduce emissions of haze-forming pollutants and has developed these proposed rules to achieve that purpose. At the same time, DEQ recognizes that individual facilities and industries have characteristics and limitations that are reasonable to consider when identifying feasible pollution controls and emission reductions. DEQ followed EPA guidance and Regional Haze Rule requirements, and consulted with neighboring states in developing the screening and cost effectiveness thresholds in the proposed rules. In addition, DEQ sought consistency in DEQ's evaluation of industry-submitted four factor analyses, following EPA guidance on such factors as interest rates and useful life of emission units.

DEQ agrees that considering other environmental effects of installing pollution controls is both required by the "fourth factor" of the Regional Haze Rule (i.e. energy and nonair effects) and elemental to DEQ's mission to protect public health and the environment. DEQ intends to include an environmental justice analysis in the Regional Haze State Implementation Plan to be released for public comment in the fall of 2021.

DEQ did not change the proposed rules in response to this comment.

Comment 6

DEQ received one comment in this category from commenter #6, orally at the public hearing.

From the experience of being a visitor at Crater Lake National Park, if I can't see across the lake, I am less likely to stay. I want to be able to see the view of the surroundings, as well as hike and exercise and breathe clean air. More than 700,000 visitors come to Crater Lake every year and their visitation has an economic impact.

DEQ Response

DEQ agrees with commenter that there may likely be a positive relationship between visibility in Class 1 areas and travel and tourism dollars spent at businesses in nearby towns. DEQ did not attempt to quantify these economic effects, but did acknowledge potential economic benefits of enhanced visitor experience at Class I areas in the fiscal statement that accompanies these proposed rules.

DEQ did not change the proposed rules in response to this comment.

Comment 7

DEQ received one comment in this category from commenter #7.

Do any incentive programs exist for having National Scenic Area residents switch to hybrid or all electric vehicle types? Could we promote train service and clean vehicle travel options?

DEQ Response

DEQ implements the Oregon Clean Vehicle Rebate Program that provides cash rebates to purchasers of plug-in electric and plug-in hybrid vehicles. The rebate program also offers larger rebates to lower income purchasers of new and used electric vehicles. More information about the Clean Vehicle Rebate Program and DEQ's work to incentivize clean transportation is available on DEQ's website here:

<https://www.oregon.gov/deq/air/programs/Pages/ZEV-Rebate.aspx>. In addition, DEQ will include strategies to reduce haze-forming emissions from area sources, including mobile sources, in the Regional Haze State Implementation Plan, which DEQ will release for public comment in the fall of 2021.

DEQ did not change the proposed rules in response to this comment.

Comment 8

DEQ received one comment in this category from commenter #8, on behalf of multiple organizations.

We write in support of DEQ's proposed revisions to Oregon's Regional Haze rules. The revised rules reflect a reasoned, well-grounded, and pragmatic plan for implementing the Clean Air Act's visibility requirements. They will also benefit many communities in Oregon that are disproportionately burdened by pollution from emissions of PM, SO₂, and NO_x and communities that are most vulnerable to the most harmful effects of climate change.

[The Clean Air Act requires] each state's strategy must be based on an analysis of emission control measures that are necessary to make "reasonable progress" towards the goal of restoring natural visibility to Class I areas. The emissions-reducing strategies in DEQ's revised Division 223 rules are consistent with EPA requirements for round II state implementation plans. The revised rules provide a strong foundation for Oregon's long-term strategy for reducing anthropogenic pollutants that impair visibility.

The proposed rules are also necessary to get Oregon on course towards 2028 "reasonable progress" goals and ultimately towards attaining natural visibility conditions consistent with federal law. Monitoring data shows that, in 2018, Oregon was meeting its "reasonable progress" goals for only three of the six monitors in Oregon's Class I areas, and were [not meeting but] within 5%, of "reasonable progress" goals for the other three monitors.

[And] without additional reductions in emissions, in 2028 Oregon will be further above the glidepath in three out of six monitoring locations, with two additional monitors just barely below the glidepath (within 5%).

The proposed $Q/d \geq 5$ formula for selecting stationary sources to submit a four-factor analysis is reasonable. However, other states have adopted a lower threshold. For example, Minnesota, Michigan, and Montana are all using a Q/d of 4 and Idaho and Alaska are using 2 and 3 respectively. While the state would be justified in setting a lower Q/d , we believe this formula is a workable proxy for impact on visibility, and is consistent with EPA guidance.

We are disappointed that Oregon has not taken action to analyze cost-effective strategies to reduce emissions from concentrated animal feeding operations (CAFOs), which also impair visibility in Oregon's Class I areas. CAFOs produce air emissions containing all of the pollutants recognized under the Regional Haze program as impairing visibility—PM, NOx, SO₂, VOCs, and ammonia—as well as methane, an incredibly potent greenhouse gas, contributing significantly to climate change. Because of well publicized water pollution from a CAFO near the Columbia River Gorge, many Oregonians have already seen the negative impact that CAFOs can have on water quality and are aware of the adverse impacts to regional air quality that are already being caused by this industry. CAFOs in Oregon such as Threemile Canyon Farms (the largest dairy in the country and the largest feedlot in Oregon) and Lost Valley Farms have already brought these aspects of environmental harm into sharp relief. DEQ should take steps toward addressing visibility impairment caused by CAFOs by collecting and analyzing data on air emissions from CAFOs in Oregon and by performing a four-factor analysis of the sector to determine what type of emission control strategies could help Oregon reach its Regional Haze goals.

The \$10,000/per ton cost-effectiveness threshold establishes a reasonable and appropriate value to pollution control measures. Oregon in the round I of the Regional Haze program established a cost/ton threshold of \$7,300 (the equivalent of \$8,736.25 today). Using a \$10,000/ton cost-threshold accounts for inflation, increased costs of materials, and provides access to more reasonable measures to reduce air pollution necessary to make progress by the end of the second planning period, 2028.

The \$10,000/per ton cost-effectiveness threshold is also within the range of cost/ton values used in other states and Clean Air Act programs (e.g. Wisconsin). Additionally, EPA's Menu of Control Measures for National Ambient Air Quality Standards Implementation lists several controls where costs per ton are close to or exceed \$10,000.

We support the provisions of the proposed rules that require implementation of cost-effective controls on the "fastest practicable timeline" and to set a deadline of July 31, 2026, as the last possible date for installation of the pollution controls.

We support the provisions of the proposed rules pertaining to compliance options that allow DEQ to put additional information into the record and adjust a facility's four-factor analysis based on any info DEQ determines to be accurate, adequate, and sufficient.

DEQ's revised rules will help Oregon work towards environmental justice for many frontline BIPOC and low-income rural communities burdened with the cumulative impacts of air pollution. State law directs environmental agencies to "[i]n making a determination whether and how to act, consider the effects of the action on environmental justice issues." ORS182.545(1). By considering watershed protection and environmental justice at the same time, Oregon can help dismantle the silos that have traditionally plagued conservation and environmental work, which has historically separated impacts on nature from impacts on people, ignoring the reality that people live in concert with, and are a part of, nature.

Four-factor analyses serve a valuable function for environmental justice communities disproportionately affected by the same emissions that impair visibility in Oregon's Class I areas (e.g. the four-factor analysis submitted by Owens-Brockway, a glass recycling facility in the overburdened Cully neighborhood in Portland, recently highlighted the existence of control strategies that could reduce numerous pollutants of concern and which would qualify as cost effective under the revised Regional Haze rules).

DEQ Response

DEQ settled on the screening threshold in the proposed rules, Q/d greater than or equal to 5.00, not only based on consultations with other states, but also to capture 80% of Title V emissions of Round 2 regional haze pollutants. EPA 2016 draft guidance established that EPA would consider 80% of these emissions to be a "reasonably large fraction" in establishing an applicability threshold for regional haze regulation.

Pertaining to commenters' recommendation that DEQ regulate CAFOs under these proposed rules, please see DEQ's responses to Comment #1 and Comment #4.

DEQ agrees with commenter on the importance of considering non-air, energy impacts and co-benefits of installing regional haze controls. Please see DEQ's response to Comment #5 regarding environmental justice analysis in the Regional Haze Plan.

DEQ did not change proposed rules in response to this comment.

Comment 9

DEQ received one comment in this category from commenter #9.

We were notified that the Oregon Department of Environmental Quality was planning on requiring selective catalytic reduction (SCR) control technology for our biomass fired power boilers. This was disappointing given that the consultant we hired to perform our four factor analysis determined that there were no cost effective, technologically feasible, control technology options for our facility. We subsequently were asked to provide current bid proposals for SCR and selective non-catalytic reduction (SNCR) control technologies.

ODEQ has determined that a cost of \$10,000 per ton of NO_x removed (using real numbers this equals over a \$2,500,000/year increase in our operating costs), is a reasonable cost for companies to incur for installation of required control technology systems. This is unrealistic for a small facility such as ours (even a cost of \$1,000-\$1,500 per ton of haze producing pollutant removed would make continued operation difficult, if not impossible, based on annual net revenues). There is simply no route for our facility to install SCR NO_x control technology due to fiscal limitations.

Requiring our facility to install SCR NO_x control technology equipment would greatly jeopardize our short and long term viability as a company. Suspending, altering, or terminating operations, would eliminate 75 direct family wage jobs in an already disadvantaged community, as well as cause a significant increase in haze producing pollutants due to open burning of in-woods biomass residuals generated from logging and

other forestry health initiatives (clearing and thinning operations' to reduce high hazard fuels on private, state, and federal lands), that would otherwise be used as fuel for biomass boilers that have existing pollution control equipment. In addition, it would remove 180,000 megawatt-hours, generated annually, of renewable, green electricity from the power grid at a time when the ODEQ is trying to reduce greenhouse gases.

Companies were given three options once selected. Install whatever control technology that DEQ decided to require, terminate operations (by a date in the future), or take a PSEL reduction to get down to the Q/d of 5.00. Fortunately the DEQ has indicated a willingness to negotiate with us to allow time to take steps to reduce emissions operationally to the point we could lower our PSEL's to meet the 5.00. However, they have also indicated that they intend to require SCR control technology if we are unable to achieve adequate reduction to lower our PSEL.

Also disappointing was the fact that the DEQ, even though they acknowledged increasing our use of forest residues would reduce regional haze pollutants, decided that we could not use this to offset our emissions because it was not the way they were regulating during this SIP.

For a state regulatory agency (ODEQ) to impose expensive control equipment requirements on businesses without giving reasonable advance notice even after experts have determined that they (the controls) are not technologically feasible, does not allow businesses to make clear and prudent business budgeting decisions. Furthermore the predetermined revenue structure of our Power Purchase Agreement (unlike most other affected businesses) does not allow for the flexibility to pass through capital costs to the ultimate end user, imposing greater hardship upon our already challenging economic reality.

[Commenter attached memo: Updated Calculations for Cost per Ton of NO_x Removed by SCR Control Technology]

DEQ Response

In developing these proposed rules and in carrying out the state's responsibilities under the second round of Regional Haze Rule implementation, DEQ sought a balance among the following factors: complying with Regional Haze Rule requirements, consulting with neighboring states, following EPA guidance, and accommodating constraints that individual facilities would face in complying with the proposed rules.

The Regional Haze Rule requires DEQ to develop enforceable emission reductions where feasible and cost effective. DEQ sought consistency in developing and applying the screening and cost effectiveness thresholds contained in the proposed rules and in DEQ's evaluation of industry-submitted four factor analyses. For example, DEQ followed EPA guidance on such factors as interest rates and useful life of emission units. Within the four factor analyses, DEQ assesses the technological feasibility of pollution controls and considers facility input on the feasibility of pollution control technologies. If, after a four factor analysis and additional facility input, DEQ finds a control technology infeasible, DEQ would not require that technology. If controls are feasible, but expensive, the next step in the evaluation process is a cost-effectiveness assessment expressed in units of dollars/ton

pollution removed. For Round 2 regional haze planning, DEQ deems \$10,000/ton pollution removed the threshold for cost-effective and reasonable controls.

DEQ acknowledges that the commenting business produces renewable energy and makes an important contribution toward Oregon’s goal to reduce greenhouse gas emissions from the energy sector. DEQ has been communicating with facilities that would be regulated under these proposed rules for approximately two years before the public noticing of the proposed rules, which DEQ considers reasonable notice. DEQ intends to continue to work with regulated facilities to find solutions that reduce regional haze emissions and allow companies to remain viable, provide employment and produce products and services important to Oregon’s economy and environment. The proposed rules contain a deadline by which these agreements must be reached because DEQ must include facility agreements and orders in the Regional Haze State Implementation Plan in order to obtain EPA’s approval (by demonstrating the federal enforceability of emission reductions). DEQ intends to release the Regional Haze State Implementation Plan for public notice in the fall of 2021 and present for the Environmental Quality’s consideration in November 2021.

DEQ did not change the proposed rules in response to this comment.

Comments received by close of public comment period

The table below lists people and organizations that submitted public comments about the proposed rules by the deadline. Original comments are on file with DEQ.

List of Commenters			
Name	Organization	Commenter Number	Comment Receipt
Multiple (~240)	Individuals submitting similar comments	1++	Written
Bruce Schwartz	self	2	Written
Greg Sotir	Cully Air Action Team	3	Written
Michael Lang	Friends of the Gorge	4	Written and hearing testimony
Joshua Jenkins	National Park Conservation Association	5	Hearing testimony
Rob Smith	self	6	Hearing testimony

List of Commenters			
Name	Organization	Commenter Number	Comment Receipt
Guy Coe	self	7	Written
Molly Tack-Hooper	Earthjustice, on behalf of the Cully Air Action Team, Earthjustice, Friends of the Columbia Gorge, Green Energy Institute, Oregon Environmental Council, National Parks Conservation Association, Neighbors for Clean Air, Northwest Environmental Defense Center, and Verde	8	Written
Mark Labart	Biomass One, LP	9	Written
Nathan Salter	self	10	Written

Implementation

Notification

The proposed rules would become effective upon filing on approximately July 26, 2021.

DEQ would notify affected parties by:

- Email to regulated facility representatives;
- Individual meetings to develop final agreements and orders;
- Written correspondence to open permits for cause and modification.

Compliance and enforcement

The affected parties are regulated facilities that emit Round 2 regional haze pollutants. Regulated facilities would comply with DEQ's orders by installing pollution controls or otherwise reducing Round 2 regional haze pollutant emissions by July 31, 2026 and fulfilling all monitoring and reporting conditions specified in their permits.

DEQ would issue stipulated agreements and orders or orders to regulated facilities to install pollution controls or otherwise reduce Round 2 regional haze pollutant emissions by July 31, 2026. DEQ would modify facility permits to incorporate pollution control and emission reduction requirements as well as monitoring and reporting conditions. DEQ will include agreements and orders in the Regional Haze State Implementation Plan submitted to EPA for approval in fall 2021, making the resultant emission reductions federally enforceable.

Measuring, sampling, monitoring and reporting

DEQ would require regulated facilities through permit conditions to monitor and report on emissions of Round 2 regional haze pollutants.

Systems

DEQ will post agreements and orders to facilities to install pollution controls or otherwise reduce Round 2 regional haze pollutant emissions on the Regional Haze website. DEQ will update agency databases and invoicing systems to with modified permit conditions.

Training

DEQ does not foresee that new or additional training would be required of either regulated facility staff or DEQ staff.

Five-Year Review

Requirement

Oregon law requires DEQ to review new rules within five years after EQC adopts them. The law also exempts some rules from review. DEQ determined whether the rules described in this report are subject to the five-year review. DEQ based its analysis on the law in effect when EQC adopted these rules.

Exemption from five-year rule review

The Administrative Procedures Act exempts some of the proposed rules from the five-year review because the proposed rules would:

- Amend or repeal an existing rule. ORS 183.405(4).

Five-year rule review required

No later than July 26, 2026, DEQ will review the newly adopted rules for which ORS 183.405 (1) requires review to determine whether:

- The rule has had the intended effect
- The anticipated fiscal impact of the rule was underestimated or overestimated
- Subsequent changes in the law require that the rule be repealed or amended
- There is continued need for the rule.

Rules Subject to Five Year Review			
340-223-0100	340-223-0110	340-223-0120	340-223-0130

DEQ will use “available information” to comply with the review requirement allowed under ORS 183.405 (2).

DEQ will provide the five-year rule review report to the advisory committee to comply with ORS 183.405 (3).

Accessibility Information

You may review copies of all documents referenced in this announcement electronically. To schedule a review of all websites and documents referenced in this announcement, call Karen F. Williams, DEQ (503-863-1664).

Please notify DEQ of any special physical or language accommodations or if you need information in large print, Braille or another format, or any other arrangements necessary to accommodate a disability. To make these arrangements, contact DEQ, Portland, at 503-229-5696 or call toll-free in Oregon at 1-800-452-4011, ext. 5696; fax to 503-229-6762; or email to deqinfo@deq.state.or.us. Hearing impaired persons may call 711.

Table A-1: Facilities regulated by the proposed rule based on initial screening.

Agency Facility ID	Facility Name	Permit	Fac State	Operating Status	EIS Facility ID	CIA Name	Distance (km)	Actual Emissions (tons per year)					PSEL (tons per year)					EmissYear
								NOX	PM10	SO2	Q	Q/d	NOX	PM10	SO2	Q(tpy)	Q/d	
25-0016	PGE Boardman	TV	OR	Active	8171111	Mount Hood Wilderness	142.6	1768.12	387.75	3297.87	5454	38.24	5961	1086	9525	16572	116.21	2017
208850	INTERNATIONAL PAPER	TV	OR	Active		Three Sisters Wilderness	58.9	724.02	181.39	67.64	973	16.51	1692	750	1521	3963	67.24	
05-1849	A Division of Cascades Holding US Inc.	TV	OR	Active	7219311	Mount Hood Wilderness	87.7	244.40	14.53	6.10	265	3.02	1449	738	3400	5587	63.72	2017
01-0029	Ash Grove Cement Company	TV	OR	Active	7219011	Eagle Cap Wilderness	51.9	788.00	140.82	33.10	962	18.54	1778	176	42	1996	38.47	2017
05-2520	Beaver Plant/Port Westward I Plant	TV	OR	Active	7393911	Mount Hood Wilderness	133.3	359.22	62.19	9.85	431	3.24	3776	241	595	4612	34.60	2017
10-0025	Roseburg Forest Products - Dillard	TV	OR	Active	8219211	Kalmiopsis Wilderness	81.8	1006.94	479.24	73.52	1560	19.07	1655	743	110	2508	30.67	2017
04-0004	Georgia Pacific- Wauna Mill	TV	OR	Active	8055711	Mount Hood Wilderness	145.5	1037.66	775.80	539.82	2353	16.18	2139	1077	913	4129	28.38	2017
03-2145	West Linn Paper Company	TV	OR	Active	8417511	Mount Hood Wilderness	53.7	186.13	14.99	2.72	204	3.79	597	82	743	1422	26.46	2017
22-3501	Halsey Pulp Mill	TV	OR	Active	7394911	Three Sisters Wilderness	80.4	352.06	278.81	80.92	712	8.86	687	366	851	1904	23.69	2017
26-1876	Owens-Brockway Glass Container Inc.	TV	OR	Active	8520811	Mount Hood Wilderness	55.1	403.65	76.15	118.07	598	10.86	711	132	313	1156	21.00	2017
21-0005	Georgia-Pacific- Toledo	TV	OR	Active	8418611	Three Sisters Wilderness	147.0	939.11	195.76	16.07	1151	7.83	1351	799	839	2989	20.33	2017
18-0096	Gas Transmission NW - Compressor Station #13	TV	OR	Active	7393311	Crater Lake NP	14.1	29.40	2.08	1.47	33	2.34	224	14	39	277	19.68	2017
31-0002	Particleboard	TV	OR	Active	7298311	Eagle Cap Wilderness	25.0	305.10	25.49	2.38	333	13.32	379	42	39	460	18.41	2017
18-0003	Klamath Cogeneration Proj	TV	OR	Active	9223711	Mountain Lakes Wilderness	24.4	143.00	19.56	6.40	169	6.91	314	48	39	401	16.40	2017
18-0005	Interfor Gilchrist	TV	OR	Active	8518711	Diamond Peak Wilderness	22.3	60.15	125.28	2.31	188	8.42	104	208	39	351	15.74	2017
31-0006	Elgin Complex	TV	OR	Active	8170611	Eagle Cap Wilderness	18.1	128.15	41.10	13.01	182	10.08	171	62	39	272	15.04	2017
01-0038	Baker Compressor Station	TV	OR	Active	7219111	Eagle Cap Wilderness	40.2	158.48	1.97	1.17	162	4.02	542	14	39	595	14.81	2017
12-0032	Ochoco Lumber Company	ACDP - Standard	OR	Active		Strawberry Mountain Wilderness	8.5						50	31	39	120	14.19	PSEL
09-0084	Compressor Station 12	TV	OR	Active	7410011	Three Sisters Wilderness	30.4	63.60	4.62	2.56	71	2.33	377	14	39	430	14.13	2017
302847	Oregon City Compressor Station	TV	OR	Active	8417911	Mount Hood Wilderness	43.8	156.66	1.72	1.02	159	3.64	536	16	39	591	13.49	2017
08-0003	Pacific Wood Laminates, Inc.	TV	OR	Active	8416611	Kalmiopsis Wilderness	23.5	52.50	139.12	3.27	195	8.29	76	189	29	294	12.50	2017
26-1865	EVRAZ Inc. NA	TV	OR	Active	8521611	Mount Hood Wilderness	73.1	139.40	118.74	3.27	261	3.57	493	340	39	872	11.92	2017
18-0013	Collins Products, L.L.C.	TV	OR	Active	7219711	Mountain Lakes Wilderness	23.6	6.85	105.89	0.03	113	4.78	39	166	50	255	10.82	2017
15-0159	Biomass One, L.P.	TV	OR	Active	8056211	Mountain Lakes Wilderness	56.4	239.00	15.57	14.32	269	4.77	469	48	39	556	9.86	2017
15-0073	Roseburg Forest Products- Medford MDF	TV	OR	Active	8056111	Mountain Lakes Wilderness	59.5	131.16	36.24	5.94	173	2.91	272	215	39	526	8.84	2017
18-0014	Columbia Forest Products, Inc.	TV	OR	Active	8186211	Mountain Lakes Wilderness	24.6	43.19	57.16	0.73	101	4.10	65	87	39	191	7.75	2017
15-0004	Boise Cascade- Medford	TV	OR	Active	8418111	Mountain Lakes Wilderness	60.6	113.42	125.26	15.00	254	4.19	227	167	31	425	7.02	2017
10-0045	Swanson Group Mfg. LLC	TV	OR	Active	8004811	Kalmiopsis Wilderness	48.8	55.24	144.76	2.99	203	4.16	80	193	39	312	6.39	2017
18-0006	dba JELD-WEN	TV	OR	Active	7219611	Mountain Lakes Wilderness	21.1	26.59	16.78	1.58	45	2.13	67	27	39	133	6.30	2017
15-0025	Timber Products Co. Limited Partnership	TV	OR	Active	8054711	Mountain Lakes Wilderness	59.4	69.18	25.21	2.43	97	1.63	162	159	39	360	6.07	2017
10-0078	Roseburg Forest Products- Riddle Plywood	TV	OR	Active	8005011	Kalmiopsis Wilderness	68.9	79.49	50.16	15.13	145	2.10	199	127	39	365	5.29	2017
204402	KINGSFORD MANUFACTURING COMPANY	TV	OR	Active		Three Sisters Wilderness	61.0	289.12	177.59	44.1	511	8.38						

Last updated 1/10/2020

Table A-2: DEQ findings for facilities after initial screening.

Facility ID	Facility Name	Actual Q/d	2017 PSEL Q/d	FFA key	Description
25-0016	PGE Boardman	38.24	116.21	0	No FFA. Facility shut down coal-fired operations, Carty GS, Q/d << 5.00
01-0029	Ash Grove Cement Company	18.54	38.47	1	No FFA, 2013 consent decree with EPA = max controls.
204402	Kingsford Manufacturing Company	8.38		2	No FFA - lowered PSEL to Q/d < 5.00
05-1849	Cascades Tissue Group: A Division of Cascades Holding US Inc.	3.02	63.72	2	No FFA - lowered PSEL to Q/d < 5.00.
15-0025	Timber Products Co. Limited Partnership	1.63	6.07	2	No FFA - lowered PSEL to Q/d < 5.00.
05-2520	PGE Beaver Plant/Port Westward I Plant	3.24	34.6	2	No FFA - Will lower PSEL to Q/d < 5.00 by 2025.
10-0078	Roseburg Forest Products - Riddle Plywood	2.1	5.29	2	No FFA, PSEL Q/d < 5.00
15-0073	Roseburg Forest Products - Medford MDF	2.91	8.84	2	No FFA, Q/d < 5.00
18-0003	Klamath Energy LLC – Klamath Cogeneration Proj	6.91	16.4	2	No FFA - lowered PSEL to Q/d < 5.00
08-0003	Pacific Wood Laminates, Inc.	8.29	12.5	3	FFA - no controls <\$10K, no further action.
10-0045	Swanson Group Mfg. LLC	4.16	6.39	3	FFA - no controls <\$10K, no further action.
12-0032	Ochoco Lumber Company	4.60	14.19	3	FFA - no controls <\$10K, no further action.
18-0014	Columbia Forest Products, Inc.	4.1	7.75	3	FFA - no controls <\$10K, no further action
18-0013	Collins Products, L.L.C.	4.78	10.82	3	FFA - no controls <\$10K, no further action.
31-0002	Woodgrain Millwork LLC - Particleboard	13.32	18.41	3	FFA - no controls <\$10K, no further action.
26-1876	Owens-Brockway Glass Container Inc.	10.86	21	4	FFA - found controls <\$10K.
18-0005	Gilchrist Forest Products	8.42	15.74	4	FFA - found controls <\$10K.
31-0006	Boise Cascade Wood Products, LLC - Elgin Complex	10.08	15.04	5	FFA -Step 2. More detailed controls analysis
04-0004	Georgia Pacific - Wauna Mill	16.18	28.38	5	FFA -Step 2. More detailed controls analysis
22-3501	Cascade Pacific Pulp, LLC - Halsey Pulp Mill	8.86	23.69	5	FFA -Step 2. More detailed controls analysis
15-0004	Boise Cascade Wood Products, LLC - Medford	4.19	7.02	5	FFA -Step 2. More detailed controls analysis
09-0084	Gas Transmission Northwest LLC - Compressor Station 12	2.33	14.13	5	FFA -Step 2. More detailed controls analysis
18-0096	Gas Transmission Northwest LLC - Compressor Station 13	2.34	19.68	5	FFA -Step 2. More detailed controls analysis

Facility ID	Facility Name	Actual Q/d	2017 PSEL Q/d	FFA key	Description
208850	International Paper - Springfield	16.51	67.24	5	FFA -Step 2. More detailed controls analysis
21-0005	Georgia-Pacific – Toledo LLC	7.83	20.33	5	FFA -Step 2. More detailed controls analysis
01-0038	Northwest Pipeline LLC - Baker Compressor Station	4.02	14.81	5	FFA -Step 2. More detailed controls analysis
03-2729	Northwest Pipeline LLC - Oregon City Compressor Station	3.64	13.49	5	FFA -Step 2. More detailed controls analysis
26-1865	EVRAZ Inc. NA	3.57	11.92	5	FFA -Step 2. More detailed controls analysis
15-0159	Biomass One, L.P.	4.77	9.86	5	FFA -Step 2. More detailed controls analysis
10-0025	Roseburg Forest Products - Dillard	19.07	30.67	5	FFA -Step 2. More detailed controls analysis
18-0006	JELD-WEN	2.13	6.3	5	FFA -Step 2. More detailed controls analysis
03-2145	Willamette Falls Paper Company	3.79	26.46	5	FFA -Step 2. More detailed controls analysis



State of Oregon Department of Environmental Quality

Draft Rules – Edits Highlighted

Regional Haze 2021 Division 223 Rulemaking

Key to Identifying Changed Text:

~~Strikethrough: Deleted Text~~

Underline: New/inserted text

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 DEQ and is adopted as the State Implementation Plan (SIP) of the State of Oregon under the FCAA, 42 U.S.C.A 7401 to 7671q.

(2) Except as provided in section (3), revisions to the SIP will be made under the EQC's rulemaking procedures in OAR 340 division 11 of this chapter and any other requirements contained in the SIP and will be submitted to the EPA for approval. The SIP was last modified by the EQC on ~~January 21~~July 22-23, 2021.

(3) Notwithstanding any other requirement contained in the SIP, DEQ may:

(a) Submit to the EPA any permit condition implementing a rule that is part of the federally-approved SIP as a source-specific SIP revision after DEQ has complied with the public hearings provisions of 40 C.F.R. 51.102; and

(b) Approve the standards submitted by LRAPA if LRAPA adopts verbatim, other than non-substantive differences, any standard that the EQC has adopted, and submit the standards to EPA for approval as a SIP revision.

(4) Revisions to the State of Oregon Clean Air Act Implementation Plan become federally enforceable upon approval by the EPA. If any provision of the federally approved State Implementation Plan conflicts with any provision adopted by the EQC, DEQ must enforce the more stringent provision.

Statutory/Other Authority: 468A & ORS 468.020

Statutes/Other Implemented: ORS 468A.035 & 468A.135

History:

[DEQ 1-2021, amend filed 01/21/2021, effective 01/21/2021](#)
[DEQ 21-2020, amend filed 11/19/2020, effective 11/19/2020](#)
[DEQ 17-2020, amend filed 09/21/2020, effective 09/21/2020](#)
[DEQ 18-2019, amend filed 07/19/2019, effective 07/19/2019](#)
[DEQ 14-2019, amend filed 05/17/2019, effective 05/17/2019](#)
[DEQ 4-2019, amend filed 01/24/2019, effective 01/24/2019](#)
[DEQ 197-2018, amend filed 11/16/2018, effective 11/16/2018](#)
[DEQ 192-2018, amend filed 09/14/2018, effective 09/14/2018](#)
[DEQ 190-2018, amend filed 07/13/2018, effective 07/13/2018](#)
[DEQ 11-2018, amend filed 03/23/2018, effective 03/23/2018](#)
DEQ 7-2017, f. & cert. ef. 7-13-17
DEQ 2-2017, f. & cert. ef. 1-19-17
DEQ 14-2015, f. & cert. ef. 12-10-15
DEQ 10-2015, f. & cert. ef. 10-16-15
DEQ 7-2015, f. & cert. ef. 4-16-15
DEQ 6-2015, f. & cert. ef. 4-16-15
DEQ 7-2014, f. & cert. ef. 6-26-14
DEQ 6-2014, f. & cert. ef. 3-31-14
DEQ 5-2014, f. & cert. ef. 3-31-14
DEQ 4-2014, f. & cert. ef. 3-31-14
DEQ 1-2014, f. & cert. ef. 1-6-14
DEQ 12-2013, f. & cert. ef. 12-19-13
DEQ 11-2013, f. & cert. ef. 11-7-13
DEQ 4-2013, f. & cert. ef. 3-27-13
DEQ 10-2012, f. & cert. ef. 12-11-12
DEQ 7-2012, f. & cert. ef. 12-10-12
DEQ 1-2012, f. & cert. ef. 5-17-12
DEQ 18-2011, f. & cert. ef. 12-21-11
DEQ 5-2011, f. 4-29-11, cert. ef. 5-1-11
DEQ 2-2011, f. 3-10-11, cert. ef. 3-15-11
DEQ 1-2011, f. & cert. ef. 2-24-11
DEQ 14-2010, f. & cert. ef. 12-10-10
DEQ 5-2010, f. & cert. ef. 5-21-10
DEQ 2-2010, f. & cert. ef. 3-5-10
DEQ 8-2009, f. & cert. ef. 12-16-09
DEQ 3-2009, f. & cert. ef. 6-30-09
DEQ 15-2008, f. & cert. ef. 12-31-08
DEQ 14-2008, f. & cert. ef. 11-10-08
DEQ 12-2008, f. & cert. ef. 9-17-08
DEQ 11-2008, f. & cert. ef. 8-29-08
DEQ 5-2008, f. & cert. ef. 3-20-08
DEQ 8-2007, f. & cert. ef. 11-8-07
DEQ 4-2007, f. & cert. ef. 6-28-07
DEQ 3-2007, f. & cert. ef. 4-12-07
DEQ 4-2006, f. 3-29-06, cert. ef. 3-31-06

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

DEQ 20-1995 (Temp), f. & cert. ef. 9-14-95
DEQ 19-1995, f. & cert. ef. 9-1-95
DEQ 17-1995, f. & cert. ef. 7-12-95
DEQ 14-1995, f. & cert. ef. 5-25-95
DEQ 10-1995, f. & cert. ef. 5-1-95
DEQ 9-1995, f. & cert. ef. 5-1-95
DEQ 25-1994, f. & cert. ef. 11-2-94
DEQ 15-1994, f. 6-8-94, cert. ef. 7-1-94
DEQ 14-1994, f. & cert. ef. 5-31-94
DEQ 5-1994, f. & cert. ef. 3-21-94
DEQ 1-1994, f. & cert. ef. 1-3-94
DEQ 19-1993, f. & cert. ef. 11-4-93
DEQ 17-1993, f. & cert. ef. 11-4-93
DEQ 16-1993, f. & cert. ef. 11-4-93
DEQ 15-1993, f. & cert. ef. 11-4-93
DEQ 12-1993, f. & cert. ef. 9-24-93
DEQ 8-1993, f. & cert. ef. 5-11-93
DEQ 4-1993, f. & cert. ef. 3-10-93
DEQ 27-1992, f. & cert. ef. 11-12-92
DEQ 26-1992, f. & cert. ef. 11-2-92
DEQ 25-1992, f. 10-30-92, cert. ef. 11-1-92
DEQ 20-1992, f. & cert. ef. 8-11-92
DEQ 19-1992, f. & cert. ef. 8-11-92
DEQ 7-1992, f. & cert. ef. 3-30-92
DEQ 3-1992, f. & cert. ef. 2-4-92
DEQ 1-1992, f. & cert. ef. 2-4-92
DEQ 25-1991, f. & cert. ef. 11-13-91
DEQ 24-1991, f. & cert. ef. 11-13-91
DEQ 23-1991, f. & cert. ef. 11-13-91
DEQ 22-1991, f. & cert. ef. 11-13-91
DEQ 21-1991, f. & cert. ef. 11-13-91
DEQ 20-1991, f. & cert. ef. 11-13-91
DEQ 19-1991, f. & cert. ef. 11-13-91
DEQ 2-1991, f. & cert. ef. 2-14-91
DEQ 31-1988, f. 12-20-88, cert. ef. 12-23-88
DEQ 21-1987, f. & cert. ef. 12-16-87
DEQ 8-1987, f. & cert. ef. 4-23-87
DEQ 5-1987, f. & cert. ef. 3-2-87
DEQ 4-1987, f. & cert. ef. 3-2-87
DEQ 21-1986, f. & cert. ef. 11-7-86
DEQ 20-1986, f. & cert. ef. 11-7-86
DEQ 10-1986, f. & cert. ef. 5-9-86
DEQ 5-1986, f. & cert. ef. 2-21-86
DEQ 12-1985, f. & cert. ef. 9-30-85
DEQ 3-1985, f. & cert. ef. 2-1-85
DEQ 25-1984, f. & cert. ef. 11-27-84

DEQ 18-1984, f. & cert. ef. 10-16-84
DEQ 6-1983, f. & cert. ef. 4-18-83
DEQ 1-1983, f. & cert. ef. 1-21-83
DEQ 21-1982, f. & cert. ef. 10-27-82
DEQ 14-1982, f. & cert. ef. 7-21-82
DEQ 11-1981, f. & cert. ef. 3-26-81
DEQ 22-1980, f. & cert. ef. 9-26-80
DEQ 21-1979, f. & cert. ef. 7-2-79
DEQ 19-1979, f. & cert. ef. 6-25-79
DEQ 54, f. 6-21-73, cert. ef. 7-1-73
DEQ 35, f. 2-3-72, cert. ef. 2-15-72

Division 223 REGIONAL HAZE RULES

340-223-0010

Purpose

OAR 340-223-0020 through 340-223-0080~~130~~ establish [the process and criteria for identifying reductions of pollutants from stationary sources that reduce visibility and contribute to regional haze in Class I areas, for the purpose of maintaining reasonable progress and other requirements associated with Oregon's implementation of the federal regional haze rule in 40 CFR 51.308 \(2017\)](#)~~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 December 9, 2010.~~

[\[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan that EQC adopted under OAR 340-200-0040.\]](#)

Statutory/Other Authority: ORS 468 & 468A

Statutes/Other Implemented: ORS 468A.025

History:

DEQ 14-2010, f. & cert. ef. 12-10-10

DEQ 3-2009, f. & cert. ef. 6-30-09

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 [takes precedenceapplies 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 Appendix Y to 40 CFR Part 51,~~

~~“Guidelines for BART Determinations Under the Regional Haze Rule”, and in accordance with the federal Regional Haze Rules under 40 CFR § 51.308(e), as in effect on December 9, 2010~~“Emissions unit” means any part or activity of a source that emits or has the potential to emit more than 20 tons of any single or combination of round II regional haze pollutants.

~~(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.~~“Round II regional haze pollutants” means the pollutants DEQ has identified in round II of regional haze that contribute to visibility impacts in Class I areas, which are sulfur dioxide, particulate matter of a nominal diameter of 10 microns or less, and nitrogen oxides.

~~(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):~~

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

~~Where ext = the atmospheric light extinction coefficient, expressed in inverse megameters (Mm^{-1})~~“Round II of regional haze” means the combination of information collection, technical demonstrations, control strategies, commitments, rules, orders, and any other actions that make up DEQ’s development and implementation of the 2018 through 2028 long-term strategy for reducing haze in Oregon’s Class I areas that will be submitted or that have been submitted to EPA as part of the state implementation plan.

~~[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan that EQC adopted under OAR 340-200-0040.]~~

~~[NOTE: View a PDF of Appendix Y to 40 C.F.R. Part 51 by clicking on “Tables” link below.]~~

~~[ED. NOTE: To view attachments referenced in rule text, click here to view rule.]~~

~~(4) “Dry sorbent injection pollution control system” means a pollution control system that reduces sulfur dioxide emissions by combining a dry alkaline reagent directly with the boiler exhaust gas stream to enable the reagent to adsorb sulfur dioxide and be collected by the existing electrostatic precipitator.~~

~~(5) “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.~~

~~(6) “Ultra-low sulfur coal” means coal that contains no more than 0.25 lb sulfur/mmBtu heat input on average.~~

Statutory/Other Authority: ORS 468 & 468A

Statutes/Other Implemented: ORS 468A.025

History:

DEQ 13-2019, amend filed 05/16/2019, effective 05/16/2019

DEQ 14-2010, f. & cert. ef. 12-10-10

DEQ 3-2009, f. & cert. ef. 6-30-09

~~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) Between July 1, 2011 and December 31, 2020, nitrogen oxide emissions must not exceed 0.23 lb/mmBtu heat input as a 30-day rolling average, provided that:~~

~~(A) If the source submitted a complete application for construction and/or operation of pollution control equipment to satisfy the emissions limit in subsection (1)(a) at least eight months prior to the compliance date of July 1, 2011, and the Department has not approved or denied the application by the compliance date, the compliance date is extended until the Department approves or disapproves the application, but may not be extended to a date more than five years from the date that the United States Environmental Protection Agency approves a revision to the State of Oregon Clean Air Act Implementation Plan that incorporates OAR 340-223-0030; and~~

~~(B) If it is demonstrated by December 31, 2011 that the emissions limit in subsection (1)(a) cannot be achieved with combustion controls, the Department by order may grant an extension of compliance to July 1, 2013.~~

~~(b) Except as provided in section (3) below:~~

~~(A) Between July 1, 2014 and June 30, 2018, sulfur dioxide emissions must not exceed 0.40 lb/mmBtu heat input as a 30-day rolling average; and~~

~~(B) Between July 1, 2018 and December 31, 2020, sulfur dioxide emissions must not exceed 0.30 lb/mmBtu heat input as a 30-day rolling average.~~

~~(c) Between July 1, 2014 and December 31, 2020, particulate matter emissions must not exceed 0.040 lb/mmBtu heat input as determined by compliance source testing.~~

~~(d) During periods of startup and shutdown, the following emissions limits apply instead of the limits in subsections (a) through (c):~~

~~(A) Sulfur dioxide emissions must not exceed 1.20 lb/mmBtu, as a 3-hour rolling average;~~

~~(B) Nitrogen oxide emissions must not exceed 0.70 lb/mmBtu, as a 3-hour rolling average; and~~

~~(C) Particulate matter emissions must be minimized to extent practicable pursuant to approved startup and shutdown procedures in accordance with OAR 340-214-0310.~~

~~(e) The Foster-Wheeler boiler at the source must permanently cease burning coal by no later than December 31, 2020. Notwithstanding the definition of netting basis in OAR 340-200-0020, and the process for reducing plant-site emission limits in OAR 340-222-0043, the netting basis and PSEs for the boiler are reduced to zero upon the date on which the boiler permanently ceases burning coal, and prior to that date the netting basis and PSEs for the boiler apply only to physical changes or changes in the method of operation of the source for the purpose of complying with emission limits applicable to the boiler.~~

~~(2) Studies to evaluate compliance with the sulfur dioxide emissions limits in paragraphs (1)(b)(A)–(B), and the potential side effects of compliance with those limits, if required by section (3), must be completed as follows:~~

~~(a) A plan to evaluate the sulfur dioxide emissions limit in paragraph (1)(b)(A) must be submitted for Department approval by July 1, 2011, and the results of the evaluation must be submitted to the Department by July 1, 2013;~~

~~(b) A plan to evaluate the sulfur dioxide emissions limit in paragraph (1)(b)(B) must be submitted for Department approval by July 1, 2015, and the results of the evaluation must be submitted to the Department by July 1, 2017; and~~

~~(c) Each study pursuant to this section (2) must:~~

~~(A) Evaluate whether a dry sorbent injection pollution control system is technically infeasible, will prevent compliance with mercury emissions limits under OAR 340-228-0606, or cause a significant air quality impact (as that term is defined in 340-200-0020) for PM10 or PM2.5;~~

~~(B) Evaluate a range of commercially available sorbent materials that could be used in a dry sorbent injection pollution control system to reduce sulfur dioxide emissions;~~

~~(C) Evaluate the potential for significant air quality impacts for PM10 or PM2.5 as follows:~~

~~(i) Perform modeling consistent with the requirements of OAR 340-225-0050(1) with screening meteorological data containing conservative meteorological assumptions; or~~

~~(ii) If modeling with screening meteorological data pursuant to subparagraph (i) demonstrates that significant air quality impacts for PM₁₀ or PM_{2.5} will occur, perform modeling with site specific meteorological data obtained from the installation of a meteorological monitoring station, including one year of monitoring data for each study. The meteorological monitoring station must be installed, certified, operated and maintained, and the output of the meteorological monitoring station must be recorded, in accordance with a plan approved by the Department;~~

~~(D) Evaluate the use of other sulfur dioxide pollution control systems of equal or lower cost as a dry sorbent injection pollution control system, including but not limited to the use of ultra low sulfur coal, if the study demonstrates that the use of a dry sorbent injection pollution control system is technically infeasible, will prevent compliance with mercury emissions limits under OAR 340-228-0606, or will cause a significant air quality impact (as that term is defined in OAR 340-200-0020) for PM₁₀ or PM_{2.5}; and~~

~~(E) If applicable, propose an emissions limit for sulfur dioxide based on a 30-day rolling average that exceeds the limits listed in paragraphs (1)(b)(A)–(B), based upon the reduction of sulfur dioxide emissions to the maximum extent feasible through the use of a dry sorbent injection pollution control system or another sulfur dioxide pollution control system of equal or lower cost, including but not limited to the use of ultra low sulfur coal, provided that the emissions limit may not exceed 0.55 lb/mmBtu heat input as a 30-day rolling average.~~

~~(3) Between July 1, 2014 and December 31, 2020, sulfur dioxide emissions may exceed the limit listed in paragraph (1)(b)(A) or (B), or both, if:~~

~~(a) Studies have been submitted pursuant to section (2);~~

~~(b) Compliance with the applicable emissions limit or limits would:~~

~~(A) Be technically infeasible;~~

~~(B) Prevent compliance with mercury emissions limits under OAR 340-228-0606; or~~

~~(C) Cause a significant air quality impact, as that term is defined in OAR 340-200-0020, for PM₁₀ or PM_{2.5};~~

~~(c) Sulfur dioxide emissions are otherwise reduced to the maximum extent feasible as described in subsection (2)(c); and~~

~~(d) The source's Oregon Title V Operating Permit is modified to include a federally enforceable permit limit reflecting the requirements of subsection (2)(c), prior to the compliance date for the sulfur dioxide emissions limit in paragraph (1)(b)(A) or (B) that will be exceeded; provided that if the source's Oregon Title V Operating Permit has not been modified prior to the applicable compliance date, sulfur dioxide emissions may exceed the emissions limit in paragraph (1)(b)(A) or (B) if the source submitted a complete application to modify its Oregon Title V Operating Permit at least eight months prior to the applicable~~

~~compliance date and sulfur dioxide emissions do not exceed the emissions limit proposed in its application (which may not exceed 0.55 lb/mmBtu heat input as a 30-day rolling average).~~

~~(4) Compliance demonstration. Using the procedures specified in section (5) 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; and~~

~~(b) Compliance with any 30-day rolling average limit for sulfur dioxide that may be established pursuant to subsection (3)(c) must be demonstrated within 180 days of the compliance date for the limit in paragraph (1)(b)(A) or (B) that is superseded by the emissions limit established pursuant to subsection (3)(c).~~

~~(5) Compliance Monitoring and Testing.~~

~~(a) Compliance with the emissions limits in subsections (1)(a), (b) and (d)(A)–(B), and with any emissions limit for sulfur dioxide that may be established pursuant to subsection (3)(c), 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 December 9, 2010.~~

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

~~(B) The daily average emissions rate must be determined for each boiler operating day using the hourly emissions 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) The daily average emission rate is calculated for any calendar day in which the boiler combusts any fuel. An operating hour means a clock hour during which the boiler combusts any fuel, either for part of the hour or for the entire hour.~~

~~(b) Compliance with the particulate matter emissions limit in subsection (1)(c) must be determined by EPA Methods 5 and 19 as in effect on December 9, 2010.~~

~~(A) An initial particulate matter source test must be conducted by January 1, 2015.~~

~~(B) Subsequent tests must be conducted in accordance with a schedule specified in the source's 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 December 9, 2010. [NOTE: DEQ manuals are published with OAR 340-200-0035.]~~

~~(6) 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), and with any emissions limit for sulfur dioxide that may be established pursuant to subsection (3)(c), begins operation.~~

~~(b) For nitrogen oxide and sulfur dioxide emissions limits in section (1) 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) For any sulfur dioxide emissions limit that may be established pursuant to subsection (3)(c), a compliance status report, including CEMS data, must be submitted within 180 days of the compliance date for the limit in paragraph (1)(b)(A) or (B) that is superseded by the emissions limit established pursuant to subsection (3)(c).~~

~~(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 and all subsequent tests as specified in subsection (5)(b).~~

~~(e) The Department must be notified in writing within 7 days of the date upon which the boiler permanently ceases burning coal.~~

~~(7) The following provisions of this rule constitute BART requirements for the Foster-Wheeler Boiler: subsection (1)(a), paragraph (1)(b)(A), subsections (1)(c) (e), (2)(a) and (2)(c), and sections (3) (6).~~

~~(8) The following provisions of this rule constitute additional requirements pursuant to the federal Regional Haze Rules under 40 CFR § 51.308(e) for the Foster-Wheeler Boiler: paragraph (1)(b)(B), subsections (2)(b) and (2)(c), and sections (3) (6).~~

[NOTE: View a PDF of EPA Methods by clicking on "Tables" link below.]

[ED. NOTE: To view attachments referenced in rule text, click here to view rule.]

Statutory/Other Authority: ORS 468 & 468A

Statutes/Other Implemented: ORS 468A.025

History:

DEQ 13-2019, amend filed 05/16/2019, effective 05/16/2019

DEQ 14-2010, f. & cert. ef. 12-10-10

DEQ 3-2009, f. & cert. ef. 6-30-09

340-223-0040

Federally Enforceable Permit Limits

~~(1) A BART-eligible source that would be subject to BART may accept a federally enforceable permit limit or limits that reduces the source's emissions and prevents the source from being subject to BART.~~

~~(2) Any BART-eligible source that accepts a federally enforceable permit limit or limits as described in section (1) to prevent the source from being subject to BART, and that subsequently proposes to terminate its federally enforceable permit limit or limits, and that as a result will increase its emissions and become subject to BART, must submit a BART analysis to the Department and install BART as determined by the Department prior to terminating the federally enforceable permit limit or limits.~~

~~(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 December 9, 2010, 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 five years from the date that the United States Environmental Protection Agency approves a revision to the State of Oregon Clean Air Act Implementation Plan that incorporates OAR chapter 340, division 223, or before resuming operation, whichever is later; or~~

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

~~**Statutory/Other Authority:** ORS 468 & 468A~~

~~**Statutes/Other Implemented:** ORS 468A.025~~

~~**History:**~~

~~DEQ 14-2010, f. & cert. ef. 12-10-10~~

~~DEQ 3-2009, f. & cert. ef. 6-30-09~~

~~**340-223-0050**~~

~~**Alternative Regional Haze Requirements for the Foster-Wheeler Boiler at the Boardman Coal-Fired Power Plant (Federal Acid Rain Program Facility ORISPL Code 6106)**~~

~~(1) The owner and operator of the Foster-Wheeler boiler at the Boardman coal-fired power plant may elect to comply with OAR 340-223-0060 and 340-223-0070, or with 340-223-0080, in lieu of complying with OAR 340-223-0030, if the owner or operator provides written notification to the Director by no later than July 1, 2014. The written notification must identify which rule of the two alternatives the owner or operator has chosen to comply with. The owner or operator may not change its chosen method of compliance after July 1, 2014.~~

~~(2) Compliance with OAR 340-223-0080 in lieu of complying with 340-223-0030 is allowed only if the Foster Wheeler boiler at the Boardman coal fired power plant permanently ceases to burn coal within five years of the approval by the United States Environmental Protection Agency (EPA) of the revision to the State of Oregon Clean Air Act Implementation Plan that incorporates OAR chapter 340, division 223. If the boiler has not permanently ceased burning coal by that date, the owner and operator shall be liable for violating OAR 340-223-0030 for each day beginning July 1, 2014 on which the owner or operator did not comply with OAR 340-223-0030. This liability shall include, but is not limited to, civil penalties pursuant to OAR chapter 340, division 12, which includes penalties for the economic benefit of operating the facility without the required pollution controls.~~

~~(3) If, by December 31, 2011, the EPA fails to approve a revision to the State of Oregon Clean Air Act Implementation Plan that incorporates OAR 340-223-0030 (concerning BART requirements based upon permanently ceasing the burning of coal in the Foster Wheeler Boiler by December 31, 2020), or 340-223-0060 and 340-223-0070, then the compliance date of July 1, 2014 in 340-223-0060(2)(b) and (c) (sulfur dioxide and particulate matter emissions limits) is delayed until three years from the date of EPA approval.~~

~~(4) Notwithstanding sections (1) and (3), if the EPA approves a revision to the State of Oregon Clean Air Act Implementation Plan that incorporates OAR 340-223-0030 (concerning BART requirements based upon permanently ceasing the burning of coal in the Foster Wheeler Boiler by December 31, 2020), then OAR 340-223-0060 and 340-223-0070 are repealed, compliance with 340-223-0060 and 340-223-0070 in lieu of complying with 340-223-0030 is no longer an alternative, and compliance with 340-223-0030 or 340-223-0080 is required.~~

~~NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan that EQC adopted under OAR 340-200-0040.~~

~~**Statutory/Other Authority:** ORS 468 & 468A~~

~~**Statutes/Other Implemented:** ORS 468A.025~~

~~**History:**~~

~~DEQ 14-2010, f. & cert. ef. 12-10-10~~

~~DEQ 3-2009, f. & cert. ef. 6-30-09~~

~~**340-223-0060**~~

~~**Alternative BART Requirements for the Foster Wheeler Boiler at the Boardman Coal-Fired Power Plant (Federal Acid Rain Program Facility ORISPL Code 6106) Based Upon Operation Until 2040 or Beyond**~~

~~(1) Subject to OAR 340-223-0050, the owner or operator of the Foster Wheeler boiler at the Boardman coal-fired power plant may elect to comply with this rule and 340-223-0070 in lieu of compliance with OAR 340-223-0030.~~

~~(2) Emissions limits:~~

~~(a) On and after July 1, 2011, nitrogen oxide 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 emissions 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, on and after July 1, 2014 the nitrogen oxide emissions must not exceed 0.19 lb/mm Btu heat input as a 30-day rolling average, and the emissions limits of 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 no longer apply.~~

~~(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) During periods of startup and shutdown, the following emissions limits apply instead of the limits in subsections (2)(a) through (c):~~

~~(A) Sulfur dioxide emissions must not exceed 1.20 lb/mmBtu, as a 3-hour rolling average;~~

~~(B) Nitrogen oxide emissions must not exceed 0.70 lb/mmBtu, as a 3-hour rolling average; and~~

~~(C) Particulate matter emissions must be minimized to extent practicable pursuant to approved startup and shutdown procedures in accordance with OAR 340-214-0310.~~

~~(3) Compliance demonstration. Using the procedures specified in section (4) 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 (2) of this rule.~~

~~(b) Compliance with a 12-month rolling average must be demonstrated within 12 months of the compliance date specified in section (2) of this rule.~~

~~(4) Compliance Monitoring and Testing.~~

~~(a) Compliance with the emissions limits in (2)(a), (b) and (d)(A) (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 December 9, 2010.~~

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

~~(B) The daily average emissions rate must be determined for each boiler operating day using the hourly emissions 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 (2)(c) must be determined by EPA Methods 5 and 19 as in effect on December 9, 2010.~~

~~(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 December 9, 2010. [NOTE: DEQ manual is published with OAR 340-200-0035.]~~

~~(7) 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 (2) begin operation.~~

~~(b) For nitrogen oxide and sulfur dioxide 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 (2).~~

~~(c) If applicable, a compliance status report for the 12-month rolling average nitrogen oxide limit in section (2)(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 (4)(b).~~

~~[NOTE: View a PDF of EPA Methods by clicking on "Tables" link below.]~~

~~[ED. NOTE: To view attachments referenced in rule text, click here to view rule.]~~

~~**Statutory/Other Authority:** ORS 468 & 468A~~

~~**Statutes/Other Implemented:** ORS 468A.025~~

History:

~~DEQ 13-2019, amend filed 05/16/2019, effective 05/16/2019~~

~~DEQ 14-2010, f. & cert. ef. 12-10-10~~

340-223-0070

~~Additional NO_x Requirements for the Foster-Wheeler Boiler at the Boardman Coal-Fired Power Plant (Federal Acid Rain Program Facility ORISPL Code 6106) Based Upon Operation Until 2040 or Beyond~~

~~(1) Subject to OAR 340-223-0050, the owner or operator of the Foster-Wheeler boiler at the Boardman coal-fired power plant may elect to comply with this rule and 340-223-0060 in lieu of compliance with OAR 340-223-0030.~~

~~(2) On and after July 1, 2017, nitrogen oxide emissions must not exceed 0.070 lb/mmBtu heat input as a 30-day rolling average, excluding periods of startup and shutdown.~~

~~(3) Compliance with the nitrogen oxide emissions limit in section (2) must be determined with a continuous emissions monitoring system in accordance with OAR 340-223-0060(3).~~

~~(4).~~

~~(4) The Department must be notified in writing within 7 days after any control equipment used to comply with the emissions limit in section (2) begins operation.~~

~~(5) A compliance status report, including CEMS data, must be submitted by January 1, 2018.~~

~~Statutory/Other Authority:~~ ~~ORS 468 & 468A~~

~~Statutes/Other Implemented:~~ ~~ORS 468A.025~~

History:

~~DEQ 14-2010, f. & cert. ef. 12-10-10~~

340-223-0080

~~Alternative Requirements for the Foster-Wheeler Boiler at the Boardman Coal-Fired Power Plant (Federal Acid Rain Program Facility ORISPL Code 6106) Based Upon Permanently Ceasing the Burning of Coal Within Five Years of EPA Approval of the Revision to the Oregon Clean Air Act State Implementation Plan Incorporating OAR Chapter 340, Division 223.~~

~~(1) Subject to OAR 340-223-0050, the owner or operator of the Foster-Wheeler boiler at the Boardman coal-fired power plant may elect to comply with this rule in lieu of compliance with OAR 340-223-0030 if the boiler permanently ceases to burn coal within five years of the approval by the United States Environmental Protection Agency (EPA) of the revision to the State of Oregon Clean Air Act Implementation Plan that incorporates OAR chapter 340, division 223.~~

~~(2) Emissions limits:~~

~~(a) Beginning July 1, 2011, nitrogen oxide emissions must not exceed 0.23 lb/mmBtu heat input as a 30-day rolling average, provided that:~~

~~(A) If the source submitted a complete application for construction and/or operation of pollution control equipment to satisfy the emissions limit in subsection (2)(a) at least eight months prior to the compliance date of July 1, 2011, and the Department has not approved or denied the application by the compliance date, the compliance date is extended until the Department approves or disapproves the application, but may not be extended to a date more than five years from the date that the EPA approves a revision to the State of Oregon Clean Air Act Implementation Plan that incorporates OAR 340-223-0030; and~~

~~(B) If it is demonstrated by December 31, 2011 that the emissions limit in subsection (2)(a) cannot be achieved with combustion controls, the Department by order may grant an extension of compliance to July 1, 2013.~~

~~(b) During periods of startup and shutdown, the emissions limit in subsection (2)(a) does not apply, and nitrogen oxide emissions must not exceed 0.70 lb/mmBtu, as a 3-hour rolling average.~~

~~(c) The Foster-Wheeler boiler at the source must permanently cease burning coal by no later than five years after the approval by the EPA of the revision to the State of Oregon Clean Air Act Implementation Plan that incorporates OAR chapter 340, division 223. Notwithstanding the definition of netting basis in OAR 340-200-0020, and the process for reducing plant-site emission limits in OAR 340-222-0043, the netting basis and PSEs for the boiler are reduced to zero upon the date on which the boiler permanently ceases burning coal, and prior to that date the netting basis and PSEs for the boiler apply only to physical changes or changes in the method of operation of the source for the purpose of complying with emission limits applicable to the boiler.~~

~~(3) Compliance demonstration. Using the procedures specified in section (4) of this rule, compliance with a 30-day rolling average limit must be demonstrated within 180 days of the compliance date specified in section (2) of this rule.~~

~~(4) Compliance Monitoring and Testing. Compliance with the emissions limit in subsection (2)(a) 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 December 9, 2010.~~

~~(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) The daily average emission rate is calculated for any calendar day in which the boiler combusts any fuel. An operating hour means a clock hour during which the boiler combusts any fuel, either for part of the hour or for the entire hour.~~

~~(5) 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 limit in subsection (2)(a) begin operation.~~

~~(b) A compliance status report, including CEMS data, must be submitted within 180 days of the compliance date specified in section (2).~~

~~**Statutory/Other Authority:** ORS 468 & 468A~~

~~**Statutes/Other Implemented:** ORS 468A.025~~

~~**History:**~~

~~DEQ 14 2010, f. & cert. ef. 12-10-10~~

340-223-0100

Screening Methodology for Sources for Round II of Regional Haze

(1) The following sources are subject to the requirements of round II of regional haze, contained in OAR 340-223-0110 to OAR 340-223-0130:

(a) Stationary sources with a Title V operating permit; and

(b) That have a Q/d, as determined as provided in subsection (2), of greater than or equal to 5.00.

(2) To determine Q/d, DEQ shall calculate:

(a) A “Q” factor by adding the plant site emission limits for round II regional haze pollutants as stated in the permit for that source as of December 31, 2017;

(b) A “d” factor by determining the source’s physical distance to the closest Class I area in Oregon or an adjacent state in kilometers, measured in a straight line from the source to the nearest boundary of a Class I area; and

(c) The ratio of Q divided by d for that source.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan that EQC adopted under OAR 340-200-0040.]

Statutory/Other Authority: ORS 468 & 468A

Statutes/Other Implemented: ORS 468A.025

History:

340-223-0110

Options for Compliance with Round II of Regional Haze

(1) All sources subject to the requirements of round II of regional haze, as determined in OAR 340-223-0100(1), must submit a four factor analysis as required under OAR 340-223-0120(1) and install all controls determined by DEQ to be cost effective for controlling round II regional haze pollutants on the fastest timeline determined by DEQ to be practicable and no later than July 31, 2026 based on the agency record at the time of its decision and in an order issued under OAR 340-223-0130(1) following DEQ's adjustment and review of the four factor analysis.

(2) DEQ may, but is not required to, offer alternative compliance with subsection (1) by entering into a stipulated agreement and final order under which a source agrees to take one of the actions identified in paragraphs (b)(A) through (E). A stipulated agreement and final order shall identify the action that shall be taken by the source and the timeline for the action, which shall be the fastest timeline determined by DEQ to be practicable as well any monitoring, recordkeeping, reporting, or other requirements that DEQ determines are necessary to ensure actions taken by the source are enforceable.

(a) If DEQ chooses not to enter into a stipulated agreement and final order under this subsection (2), a source shall comply with subsection (1).

(b) DEQ may enter into a stipulated agreement and final order in which a source agrees to:

(A) Accept federally enforceable reductions of combined plant site emission limits of round II regional haze pollutants to bring the source's Q/d below 5.00. Notwithstanding OAR 340-222-0040, a source may take a PSEL reduction below the generic PSEL to achieve an overall PSEL of round II regional haze pollutants below a Q/d of 5.00. A source's Q/d will be considered to be brought below 5.00 when Q/d is below 5.00 using the calculation in OAR 340-223-0100(2), except that the Q factor shall be calculated by adding the plant site emission limits for regional haze pollutants as stated in the stipulated agreement and final order;

(B) Install controls identified by the source in a four factor analysis as cost effective for that source for reducing round II regional haze pollutants. DEQ must agree that the controls identified will result in the greatest cost effective emissions reduction at the identified emissions unit and DEQ must establish a timeline for installation of those controls that is the fastest practicable timeline for installation of the identified controls and that is no later than July 31, 2026;

(C) Install controls or reduce emissions for round II regional haze pollutants that DEQ determines, in its sole discretion, provide equivalent emissions reductions to controls that would be identified as cost effective for that source following the adjustment and review of a four factor analysis. DEQ must establish a timeline for installation of those controls that is the fastest practicable timeline for installation of the identified controls and that is no later than July 31, 2026;

(D) Maintain controls that the source has already installed to control round II regional haze pollutants or maintain reduced emissions of regional haze pollutants that DEQ determines, in its sole discretion, have provided and will continue to provide equivalent emissions reductions to controls that would be identified as cost effective for that source following adjustment and review of a four factor analysis; or

(E) Replace an emissions unit with a new emissions unit that meets the emission limits and requirements of the most recent applicable standard in place at the time of the permitting of the new emissions unit. DEQ must establish a timeline for installation of the new emissions unit that is the fastest practicable timeline for installation of the new emissions unit and that is no later than July 31, 2031.

(c) The stipulated agreement and final order shall be incorporated into the source's Title V permit or upon permit renewal.

(3) If a source fails to take action as required under subsection (1) and DEQ has not entered into a stipulated agreement and final order with that source under subsection (2), DEQ shall complete a four factor analysis for that source, and the source shall install all controls to control round II regional haze pollutants determined by DEQ to be cost effective and based on the fastest timeline determined by DEQ to be practicable and no later than July 31, 2026 in an order issued under OAR 340-223-0130 based on information compiled by DEQ in the agency record.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan that EQC adopted under OAR 340-200-0040.]

340-223-0120

Four Factor Analysis

(1) A four factor analysis is an emissions control analysis that shall include:

(a) All emissions units for the source; and

(b) Information sufficient to determine, at each emissions unit:

(A) The costs of any and all controls that could be used to reduce round II regional haze pollutants, including an estimate of the cost per ton of each round II regional haze pollutant reduced and all control technologies in use by similar emission units, either at that source or at other sources or locations;

(B) How soon the source believes it would be practicable to install to install controls identified under paragraph (A);

(C) The energy and non-air quality environmental impacts of installing controls identified under paragraph (A); and

(D) The remaining useful life of each emissions unit.

(2) If DEQ determines that the four factor analysis is inaccurate, inadequate, or insufficient, DEQ may request in writing additional information from the source and may adjust the four factor analysis based on any information submitted or may adjust the four factor analysis based on other information DEQ determines to be accurate, adequate, and sufficient. DEQ shall place any information submitted or relied on under this subsection into its record.

(3) DEQ may adjust information in the four factor analysis to assist DEQ in conducting a consistent review of submittals. DEQ shall place any information relied on under this subsection into its record.

(4) DEQ shall review the four factor analysis and any additional information that DEQ has placed in the agency record under subsections (2) and (3) to determine which controls, if any, would be cost effective to reduce round II regional haze pollutants for each emissions unit at a source and to determine what is the fastest practicable timeline for installation of the identified controls. In no event shall the timeline determined to be practicable be later than July 31, 2026.

(a) A control is cost effective if DEQ determines that the control will result in a cost of \$10,000 or less per ton of reductions for any single or combination of round II regional haze pollutants.

(b) If multiple controls are cost effective at an emissions unit, DEQ shall identify as cost effective the control that will result in the greatest emissions reduction at the emissions unit.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan that EQC adopted under OAR 340-200-0040.]

Statutory/Other Authority: ORS 468 & 468A

Statutes/Other Implemented: ORS 468A.025

History:

340-223-0130

Final Orders Ordering Compliance with Round II of Regional Haze

(1) For all sources identified in OAR 340-223-0100(1) that do not enter into a stipulated agreement and final order under OAR 340-223-0110(2), DEQ shall issue a final order no later than August 9, 2021, identifying:

(a) The action that shall be taken by the source pursuant to OAR 340-223-0110(1), as well as any monitoring, recordkeeping, reporting, or other requirements that DEQ determines are necessary to ensure any controls or emission limits are actually implemented and are enforceable.

(b) The timeline under which the source shall complete the action in paragraph (a).

(2) The order issued under subsection (1) shall:

(a) Be a contested case order issued in compliance with ORS chapter 183;

(b) Be incorporated into the source's Title V permit in compliance with OAR 340-218-0200(1)(a)(A) or upon permit renewal.

(3) Notwithstanding OAR 340-011-0530(1), a party wishing to request a contested case hearing must do so in writing within ten days of the date of service of the order issued under subsection (1).

(4) In accordance with OAR 340-011-0530(2), due to the complexity of the regional haze program, the request for hearing based on an order issued under subsection (1) must include a written response that admits or denies all factual matters alleged in the notice, and alleges any and all affirmative defenses and the reasoning in support thereof. Due to the complexity, factual matters not denied will be considered admitted, and failure to raise a defense will be a waiver of the defense. New matters alleged in the request for hearing are denied by DEQ unless admitted in subsequent stipulation.

(5) DEQ shall refer all hearing requests received under subsection (3) to the Office of Administrative Hearings within five business days of receipt of the request. The cases shall be heard on an expedited timeline to the greatest extent practicable. All reasonable efforts shall be made for DEQ or the EQC to issue a final order within 90 days of receipt of the hearing request.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan that EQC adopted under OAR 340-200-0040.]

Statutory/Other Authority: ORS 468 & 468A

Statutes/Other Implemented: ORS 468A.025

History: