



Oregon Department of Environmental Quality

July 15, 2013

Notice of Proposed Rulemaking

Updates to Oregon SIP for Nitrogen Dioxide, Sulfur Dioxide and Lead Ambient Air Quality Standards

Overview

Updates to the Oregon Clean Air Act State Implementation Plan are needed to ensure that Oregon DEQ has the authority to implement the current National Ambient Air Quality Standards for nitrogen dioxide (NO₂), sulfur dioxide (SO₂) and lead (Pb) under the Clean Air Act. The proposed rule amendments update infrastructure elements of Oregon's State Implementation Plan and allow for approval by the U.S. Environmental Protection Agency of the revised Oregon SIP.

Short summary

The proposed rule amendments incorporate new and revised NAAQS for NO₂, SO₂ and Pb into Oregon Administrative Rule and adopt significant air quality impact levels for NO₂ and SO₂ as necessary to meet Clean Air Act requirements and revise the Oregon SIP for approval by EPA.

The proposal includes the following actions:

- Amend OAR 340-200-0040 to update the Oregon Clean Air Act State Implementation Plan. If adopted by the EQC, the actions proposed in this rulemaking will be incorporated into and made part of Oregon SIP.
- Amend OAR 340-200-0020 Table 1 to add 1-hour Significant Air Quality Impact Levels for NO₂ and SO₂.
- Amend OAR 340-202-0070 to incorporate the primary 1-hour National Ambient Air Quality Standard for sulfur dioxide, adopted by the EPA June 22, 2010 and effective on August 23, 2010.
- Amend OAR 340-202-0100 to incorporate the primary 1-hour National Ambient Air Quality Standard for nitrogen dioxide, adopted by the EPA February 9, 2010 and effective on April 12, 2010.
- Amend OAR 340-202-0130 to incorporate the primary and secondary National Ambient Air Quality Standard for lead, adopted by the EPA November 12, 2008 and effective on January 12, 2009.

In addition to the rule amendments outlined above, three “crosswalks” titled “Infrastructure SIP Submittal documents for Purposes of Clean Air Act Sections 110(a)(1) and (2)” are included with this proposal. The crosswalks identify existing Oregon Administrative Rules

and corresponding Oregon Revised Statutes that demonstrate DEQ has the necessary authorities in place to implement requirements of Sections 110(a)(1) and (a)(2) of the Clean Air Act with respect to the current NAAQS for NO₂, SO₂ and Pb. They are included for EQC approval and submittal to EPA as documentation that the infrastructure elements of the Oregon SIP meet the requirements of the Clean Air Act as they relate to the NO₂, SO₂ and Pb NAAQS.

The infrastructure SIP updates for NO₂, SO₂ and Pb were due to EPA in the 2012-2013 timeframe. DEQ chose to postpone submittal of these plan updates until EPA guidance was available for reference. EPA recently issued draft guidance addressing requirements for infrastructure elements of State Implementation Plans for multiple pollutants. In consultation with EPA Region 10, DEQ has used EPA's multi-pollutant guidance document to develop this proposal. In order to streamline the submittal process, DEQ has bundled the required rule amendments for all three pollutants into one package for adoption by the EQC and submittal to EPA for approval as revisions to infrastructure elements of the Oregon SIP.

Brief history

Section 110 of the Clean Air Act, 42 USC § 7410, requires state and local air pollution control agencies to adopt federally approved control strategies to minimize air pollution. The resulting body of regulations is known as the State Implementation Plan, or more commonly called a "SIP".

State Implementation Plans serve two main purposes:

1. To demonstrate that the state has the basic air quality management program components in place to implement new or revised NAAQS; and
2. To identify the emissions control requirements the state will rely upon to attain and/or maintain the primary and secondary NAAQS.

All states are required to submit SIPs with general infrastructure elements showing the state has the capacity to implement new or revised NAAQS. Infrastructure SIP submittals must include the basic program requirements for managing air quality required in Section 110(a)(2) of the Clean Air Act (CAA), as listed in Figure 1 below.

Figure 1: Required Infrastructure Elements Tracked for Each State

Section 110(a)(2)(A) Emission limits and other control measures

Section 110(a)(2)(B) Ambient air quality monitoring/data system

Section 110(a)(2)(C) Program for enforcement of control measures

Section 110(a)(2)(D)(i) - I Prong 1: Interstate transport - significant contribution

Section 110(a)(2)(D)(i) - I Prong 2: Interstate transport - interfere with maintenance

Section 110(a)(2)(D)(i) - II Prong 3: Interstate transport - prevention of significant deterioration

Section 110(a)(2)(D)(i) - II Prong 4: Interstate transport - protect visibility

Section 110(a)(2)(D)(ii) - Interstate and international pollution abatement

- Section 110(a)(2)(E) Adequate authority and resources
- Section 110(a)(2)(F) Stationary source monitoring system
- Section 110(a)(2)(G) Emergency power
- Section 110(a)(2)(H) Future SIP revisions
- Section 110(a)(2)(J) Consultation with government officials; Public notification; PSD and visibility protection
- Section 110(a)(2)(K) Air quality modeling/data
- Section 110(a)(2)(L) Permitting fees
- Section 110(a)(2)(M) Consultation/participation by affected local entities

The Clean Air Act requires the EPA to set National Ambient Air Quality Standards for wide-spread pollutants from numerous and diverse sources considered harmful to public health and the environment. The Clean Air Act established two types of National Ambient Air Quality Standards. Primary standards set limits to protect public health, including the health of "sensitive" populations such as asthmatics, children, and the elderly. Secondary standards set limits to protect public welfare, including protection against visibility impairment, damage to animals, crops, vegetation, and buildings. The Clean Air Act requires periodic review of the science upon which the standards are based and the standards themselves.

SIPs generally establish emission limits or work practice standards to minimize emissions of the air pollutants (and their precursors) for which EPA has issued air quality criteria (the "criteria pollutants"). The six current criteria pollutants are sulfur oxides (sulfur dioxide as indicator), particulate matter, oxides of nitrogen (nitrogen dioxide as indicator), lead, carbon monoxide, and ozone. EPA has established NAAQS for these pollutants and has updated these standards over time. As the NAAQS change, states must submit revisions to the infrastructure elements of their SIPs to reflect these changes.

EPA has recently revised the NO₂, SO₂ and Pb NAAQS to protect the public from adverse health effects, as appropriate under CAA Section 109, by:

- Replacing the annual and 24-hour primary SO₂ standards with a new, primary 1-hour standard, to be effective one year after area designations for the primary 1-hour standard. (*see* 75 Federal Register 35520);
- Adding a new 1-hour primary NO₂ standard, to supplement the existing annual standard (*see* 75 Federal Register 6474); and
- Revising the level of the primary and secondary Pb standards (*see* 73 Federal Register 66964).

Main Functions of a State Clean Air Act Implementation Plan (SIP)

There are three overarching activities that occur when a National Ambient Air Quality Standard is added or revised, as summarized below:

- Within two years of revising the NAAQS for a criteria pollutant, EPA is required to identify or "designate" areas as meeting (attainment areas) or not meeting (nonattainment areas) the standard. Designations are based on the most recent set of air monitoring data. (*see* CAA Section 107(d)(1)(B), 42 USC § 7407(d)(1)(B).)
- Within three years of EPA designations, all states must submit revisions to their state implementation plans to show they have the basic air quality management program

components in place to implement a new or revised NAAQS, as specified in Clean Air Act section 110. These plans are often called "infrastructure SIPs". (see CAA Section 110(a)(1), 42 USC § 7410(a)(1)).

- Within three years of area designations, states are required to submit nonattainment area SIPs to EPA for any criteria pollutant for which the standard is not met. Each nonattainment area SIP must outline the strategies and emissions control measures that show how the area will improve air quality and meet the NAAQS. (see CAA Section 172, 42 USC § 7502.)

Table 1 displays EPA actions with regard to area designations for the revised NO₂, SO₂ and Pb NAAQS in Oregon:

TABLE 1: NAAQS Designations in Oregon	
2008 Pb	EPA designated all of Oregon as unclassifiable/attainment in a final rule published on 11/22/2011 (76 Federal Register 72097), effective 12/31/2011.
2010 NO₂	EPA designated all areas of the country as unclassifiable/attainment in a final rule published on 2/17/2012 (77 Federal Register 9532), effective 2/29/2012.
2010 SO₂	EPA's review of the most recent monitored air quality data from 2009-2011 shows no violations of SO ₂ standards in any areas in Oregon. However, there is a limited set of monitoring data in each state for SO ₂ , and EPA is not yet prepared to propose final SO ₂ attainment designations in Oregon or other states. The EPA expects to proceed with final SO ₂ designations once additional data are gathered pursuant to the EPA's comprehensive implementation strategy. EPA is currently working with states to develop an appropriate method to develop the necessary SO ₂ data.

Air Quality Monitoring

DEQ conducts ambient air quality monitoring in accordance with 40 CFR 58.10, which requires state and local air quality agencies to develop an annual ambient air quality monitoring network plan for submittal to EPA by July 1st of each year. The DEQ ambient air quality monitoring network is designed in response to EPA's National Monitoring Strategy to meet the five basic monitoring objectives specified by federal regulations:

- (1) To determine highest concentrations expected to occur in the area covered by the network;
- (2) To determine representative concentrations in areas of high population density;
- (3) To determine the impact of significant sources or source categories on ambient pollution levels;
- (4) To determine general background concentration levels; and
- (5) To determine transport characteristics into and out of airsheds.

DEQ monitors ambient air concentrations of NO₂, SO₂ and Pb for comparison to the NAAQS at the SE Lafayette Air Quality Monitoring Network location in southeast Portland. DEQ published the results of the most recent monitoring data in June of 2013. Table 2 summarizes the data for measurements of ambient air concentrations of NO₂, SO₂ and Pb contained in the 2013 Oregon Annual Ambient Air Monitoring Network Plan:

Table 2: 2013 Oregon Annual Ambient Air Monitoring Results

Criteria Pollutant	Current network monitoring status	Air Quality Monitoring Network needs
NO ₂	In compliance with existing standards.	1-hr standard will necessitate near roadway monitoring. Once Oregon's rules are updated to reflect the current NAAQS for NO ₂ , DEQ will begin conducting near-roadway monitoring along I-5 in Tualatin on January 1, 2014, to evaluate whether ambient air concentrations of NO ₂ are in exceedance of the 1-hour standard.
SO ₂	In compliance with existing standards.	EPA is in the process of developing national guidance for modeling and monitoring of SO ₂ for comparison against the 1-hour standard. DEQ will need to re-visit Oregon's compliance status once EPA's requirements are finalized. Pending final EPA national guidance or rule, DEQ may need to purchase monitoring equipment to measure ambient air concentrations of SO ₂ for comparison against the 1-hour SO ₂ NAAQS.
Pb	In compliance with existing standards.	DEQ received approval from EPA to discontinue TSP lead sampling at the McMinnville industrial site because monitored levels were well below health standards. Monitoring for lead currently occurs in North Portland and Hillsboro.

Infrastructure SIP submittals

This proposal addresses the federal Clean Air Act requirement that states must submit infrastructure SIPs within three years of a NAAQS revision to demonstrate they have the basic air quality program components in place to implement the revised NAAQS. The proposed rule amendments are needed to ensure DEQ has the necessary authority to enforce and implement the latest NAAQS for nitrogen dioxide, sulfur dioxide and lead.

The proposed rule amendments would revise the existing Ambient Air Quality Standards for NO₂ and SO₂ under Oregon Administrative Rule chapter 340, division 202 to reflect the primary 1-hour NO₂ and SO₂ NAAQS adopted by the EPA. At present, Chapter 340, division 202 of Oregon Administrative Rule contains annual and 24-hour ambient air quality standards for sulfur dioxide that are lower than the current federal SO₂ NAAQS. These standards were adopted by the EQC in 1972 and were equivalent to the federal standards at that time. Although the federal standards were repealed by EPA in 1973, Oregon rules have not been amended to reflect this change. As proposed, this rulemaking will retain the existing Oregon annual and 24-hour SO₂ ambient air quality standards until one year after EPA develops sulfur dioxide area designations in Oregon. One year after area designations are developed, EPA will be required to repeal the federal annual and 24-hour SO₂ national ambient air quality standards. Once the federal annual and 24-hour SO₂ standards are repealed, DEQ will repeal the annual and 24-hour SO₂ standards in OAR 340-202-0070. Once the annual and 24-hour SO₂ standards are repealed in Oregon rule, the federal primary 1-hour and secondary 3-hour SO₂ standards will be retained in rule for implementation in Oregon.

Prevention of Significant Deterioration (PSD): Analysis for Industrial Permitting

Revisions to Table 1 of Oregon Administrative Rule chapter 340, division 200 are needed to adopt 1-hour Significant Impact Levels for NO₂ and SO₂ in Class II areas. Significant Impact Levels (SILs) are used to determine whether the air quality impacts from a proposed new or modified industrial source are significant, warranting further and more complete air quality analysis. The levels of the 1-hour NO₂ and SO₂ Significant Impact Levels were determined based on federal guidance and are necessary to implement the 1-hour primary NO₂ and SO₂ NAAQS in air quality permitting actions carried out by DEQ.

This proposal also amends the language of the ambient air quality standard for lead under Oregon Administrative Rule chapter 340, division 202 to provide better consistency with the language of the federal NAAQS. The Oregon Environmental Quality Commission adopted the lower (current) level of the National Ambient Air Quality Standards for lead on May 5, 2010. On May 21, 2010, the amended lead standard was included in the submittal to EPA as part of a larger revision to the Oregon SIP. EPA approved the May 5, 2011 revisions (NSR, PM_{2.5} and GHG permitting rule updates) on December 27, 2011 (76 FR 80747), however, adoption of the lead standard did not meet federal requirements for an infrastructure SIP submittal. EPA issued findings that seven states (including Oregon) missed Clean Air Act deadlines for submitting plans, or infrastructure elements of plans, for implementing EPA's 2008 National Ambient Air Quality Standards for lead. This rulemaking resolves this deficiency and completes DEQ's Infrastructure SIP for lead.

Regulated parties

Parties affected by this proposal include newly constructed or expanding permitted industrial sources with NO₂ or SO₂ emissions above the Significant Emission Rate, due to the proposed 1-hour ambient air quality standards and significant impact levels for these pollutants. These sources could be required to conduct a modeling analysis for a Prevention of Significant Deterioration (PSD) determination. PSD modeling is required when a source exceeds the Significant Emission Rate (SER) for a criteria pollutant. Examples of affected sources of SO₂ may include but are not limited to natural gas electrical generating facilities or landfills that generate sulfur dioxide emissions when combusting hydrogen sulfide to generate electricity. Facilities such as data storage and processing server farm centers with multiple back-up diesel generators may find themselves at risk of violating the new 1-hour primary NO₂ standard, and may need to purchase monitoring equipment necessary to demonstrate compliance with the NAAQS. More information on the regulated parties potentially affected by this proposal is included under the section of this document titled "Statement of fiscal and economic impact".

Crosswalk Submittals, Interstates Transport

Infrastructure SIP: Other documentation (Crosswalks)

In addition to the rule amendments described above, DEQ is submitting three documents referred to as “crosswalks” for EQC approval and submittal to EPA (see Tables 4-6). A separate crosswalk is provided for NO₂, SO₂ and Lead with this rulemaking proposal, each addressing the required infrastructure SIP elements of CAA Section 110(a)(2)(A) - 110(a)(2)(M).

The crosswalks were developed in collaboration with EPA Region 10 and are included with this proposal for EQC approval and submittal to EPA as DEQ’s demonstration that the Oregon SIP meets the infrastructure requirements to implement, maintain and enforce the NAAQS for NO₂, SO₂ and Pb as specified in Section 110 of the Clean Air Act. The crosswalks address the required infrastructure elements of Section 110(a)(1) and 110(a)(2), with some exceptions, as discussed in more detail below. While the crosswalks are not considered part of the official record of Oregon’s SIP, they are proposed for submittal to EPA as reference tools to demonstrate how applicable Oregon Administrative Rules and authorizing Oregon Revised Statutes correspond to and satisfy federal Clean Air Act Section 110(a)(1) and (a)(2) requirements for the purpose of Infrastructure SIP submittals. DEQ has made an effort to include the relevant OARs and corresponding ORSs in the crosswalks for ease of reference, however, it should be noted that the official record of Oregon Administrative Rules that constitute the Federally-approved Oregon State Implementation Plan are listed in subpart MM of 40 CFR part 52. DEQ wishes to improve these crosswalks over time for use in future infrastructure SIP submittals, and welcomes suggestions during the public comment period of this rulemaking as to how these crosswalks could be further improved.

The crosswalks do not include references to Oregon Administrative Rules or Oregon Revised Statutes relating to Clean Air Act Section 110(a)(2)(C) to the extent it refers to nonattainment New Source Review permit programs required under the Section 110(a)(2)(I) of the Clean Air Act. These elements have different due dates for submission and are not required to be submitted as part of an infrastructure SIP.

Additionally, references to Oregon rules and statutes related to the infrastructure SIP requirement under CAA Section 110(a)(2)(D)(i)(I) addressing interstate transport of air pollution have also been omitted from the crosswalks. Section 110(a)(2)(D)(i)(I) prohibits emissions from sources in one state to significantly contribute to nonattainment and interference with maintenance of NAAQS attainment areas in other states. EPA has informed states that Section 110(a)(2)(D)(i)(I) is not a required element of infrastructure SIP submittals at this time in light of the recent decision by the U.S. Court of Appeals for the District of Columbia Circuit vacating the 2011 Cross-State Air Pollution Rule (*see EME Homer City generation, L.P. v. EPA*, 696 F .3d 7 (D.C. Cir. 2010)). Unless the EME Homer City decision is reversed or otherwise modified by the Supreme Court, states are not required to submit infrastructure SIPs addressing Section 110(a)(2)(D)(i)(I) of the Clean Air Act until the EPA has quantified each state’s contribution to ambient air pollution levels in

neighboring states. As a result of the EME Homer City decision, EPA has further clarified that it will not issue a Finding of Failure to Submit for Section 110(a)(2)(D)(i)(I) infrastructure SIP requirements at this time. EPA is currently seeking input from states to develop an acceptable approach for evaluating interstate transport of air pollution.

Statement of need

What problem is DEQ trying to solve?

States have a legal obligation under the Clean Air Act to amend their administrative rules to adopt new or revised National Ambient Air Quality Standards and incorporate these standards into their State Clean Air Act Implementation Plans. Amendments to Oregon Administrative Rule are needed to incorporate the 1-hour NAAQS and corresponding Significant Impact Levels for nitrogen dioxide (NO₂) and sulfur dioxide (SO₂) into the Oregon SIP, as well as to revise the rule language for the existing Lead (Pb) standard in OAR 340-200-0020 to make it consistent with the wording of the Pb NAAQS in the Code of Federal Regulations. Incorporating these changes into the Oregon SIP will allow DEQ to submit the revised infrastructure SIP elements for these pollutants to EPA for approval. Once approved, DEQ will have the authority to implement the current NAAQS for NO₂, SO₂ and Pb in Oregon, in compliance with the Clean Air Act.

How would the proposed rule solve the problem?

The proposed rule amendments will incorporate the primary 1-hour National Ambient Air Quality Standards and corresponding 1-hour Significant Impact Levels for nitrogen dioxide and sulfur dioxide into Oregon rule, as required by the Clean Air Act, as well as revise existing rule language for the lead ambient air quality standard for consistency with federal regulation language. If adopted, these proposed rule amendments will allow DEQ to submit the revised infrastructure SIP requirements to the U.S. Environmental Protection Agency for approval as revisions to the Oregon SIP.

How will DEQ know the problem has been solved?

Once adopted by the EQC, the proposed rule amendments will be filed with the Secretary of State and submitted to the EPA for approval as documentation of the updates made to the Oregon SIP. DEQ will know the problem has been solved when the updated infrastructure elements of Oregon's SIP are approved by the EPA and published in the Federal Register.

Request for other options

DEQ must adopt the proposed rule amendments to enable DEQ's implementation of the NAAQS for these pollutants and to allow the EPA to approve the proposed amendments as revisions to the Oregon SIP. Because the proposed rule amendments are necessary to update infrastructure elements of the Oregon SIP by incorporating the revised NAAQS for NO₂, SO₂ and Pb in order to comply with the requirements of the Clean Air Act, DEQ has not requested input for other options.

DEQ welcomes public comments on any aspect of this proposed rulemaking during the public comment period, but specifically requests public comment regarding the completeness of the crosswalks (Tables 4-6).

Rules affected, authorities, supporting documents

Lead division

Air Quality

Program or activity

Planning

Chapter 340 action

Amend

OAR 340-200-0020 Table 1, 340-200-0040, 340-202-0070, 340-202-0100, 340-202-0130

Statutory authority

ORS chapters 468 and 468A

Statute implemented

ORS 468A

Documents relied on for rulemaking ORS 183.335(2)(b)(C)

Document title	Document location
NAAQS – Primary and Secondary	
40 CFR Part 50 – National Primary and Secondary Ambient Air Quality Standards	http://www.ecfr.gov/cgi-bin/text-idx?c=ecfr&rgn=div5&view=text&node=40:2.0.1.1.1&idno=40
Nitrogen Dioxide NAAQS	
Federal Register Volume 75, Number 26 (Tuesday, February 9, 2010)] [Pages 6473-6537]	http://www.gpo.gov/fdsys/pkg/FR-2010-02-09/html/2010-1990.htm
40 CFR Part 81 Air Quality Designations for the 2010 Primary Nitrogen Dioxide (NO ₂) National Ambient Air Quality Standards	http://www.gpo.gov/fdsys/pkg/FR-2012-02-17/pdf/2012-3150.pdf#page=1
EPA Memorandum RE: Guidance Concerning the Implementation of the 1-hour NO ₂ NAAQS for the Prevention of Significant Deterioration Program (June 29, 2010)	http://www.epa.gov/NSR/documents/20100629_no2guidance.pdf
EPA Memorandum RE: Additional Clarification Regarding Application of Appendix W Modeling Guidance for the 1-hour NO ₂ National Ambient Air Quality Standards	http://www.epa.gov/region7/air/nsr/nsrmemos/appwno2_2.pdf
Sulfur Dioxide NAAQS	
Sulfur Dioxide (SO ₂) Primary National Ambient Air Quality Standards (EPA)	http://www.epa.gov/ttnnaqs/standards/so2/s_so2_index.html
40 CFR Parts 50, 53, and 58 Primary National Ambient Air Quality Standard for Sulfur Dioxide; Final Rule	http://www.epa.gov/ttnnaqs/standards/so2/fr/20100622.pdf
Federal Register Volume 75, Number 119 (Tuesday, June 22, 2010)]	http://www.gpo.gov/fdsys/pkg/FR-2010-06-22/html/2010-13947.htm

[Pages 35519-35603]	
40 CFR Part 81 EPA Responses to State and Tribal 2010 Sulfur Dioxide Designation Recommendations: Notice of Availability and Public Comment Period	http://www.gpo.gov/fdsys/pkg/FR-2013-02-15/pdf/2013-03593.pdf
EPA Letter to Oregon DEQ (February 6, 2013) RE: Response to Recommendation dated July 27, 2011 on air quality designations for the State of Oregon for the 2010 revision to the primary National Ambient Air Quality Standard for sulfur dioxide (SO ₂).	Document available upon request from: DEQ Headquarters 811 SW 6 th Ave. Portland, OR 97204
EPA Memorandum RE: Guidance Concerning the Implementation of the 1-hour SO ₂ NAAQS for the Prevention of Significant Deterioration Program (August 23, 2010)	http://www.epa.gov/region07/air/nsr/nsrmemos/appwso2.pdf
Lead NAAQS	
40 CFR Part 81 Air Quality Designations for the 2008 Lead (Pb) National Ambient Air Quality Standards	http://www.gpo.gov/fdsys/pkg/FR-2011-11-22/pdf/2011-29460.pdf#page=1
40 CFR Part 52 Findings of Failure To Submit a Complete State Implementation Plan for Section 110(a) Pertaining to the 2008 Lead National Ambient Air Quality Standards	http://www.gpo.gov/fdsys/pkg/FR-2013-02-26/pdf/2013-04293.pdf
2008 Lead Standards – Region 10 Final Designations (EPA)	http://www.epa.gov/leaddesignations/2008standards/final/region10f.html
Area Designations for 2008 Lead Standards (EPA)	http://www.epa.gov/leaddesignations/2008standards/index.html
Lead Implementation – Programs and Requirements for Reducing Lead (EPA)	http://www.epa.gov/airquality/lead/implement.html
Memorandum: Guidance on Infrastructure State Implementation Plan Elements Required Under Sections 110(a)(1) and 110(a)(2) for the 2008 Lead (Pb) National Ambient Air Quality Standards. (EPA)	http://www.epa.gov/air/lead/pdfs/20111014infrastructure.pdf
SIP Elements NAAQS	
Infrastructure SIP Element Reports (EPA)	http://www.epa.gov/airquality/urbanair/sipstatus/infrastructure.html
SIP – General Page (EPA)	http://yosemite.epa.gov/r10/airpage.nsf/283d45bd5b068e68825650f0064cdc2/b2ce4780021daa07882569de007ba77f?OpenDocument
Status of SIP Requirements for Designated areas, Oregon Infrastructure Requirements by Pollutant (As of 06/09/2013) (EPA)	http://www.epa.gov/airquality/urbanair/sipstatus/reports/or_infrabypoll.html#x110_a_2_lead_2008
Appendix V to Part 51—Criteria for Determining the Completeness of Plan Submissions (CFR)	http://www.ecfr.gov/cgi-bin/text-idx?c=ecfr&SID=9fe615d9103aedf220e736c5ea1ecde8&rgn=div9&view=text&node=40:2.0.1.1.2.23.1.1.5.36&idno=40
OREGON ADMINISTRATIVE RULES	
Oregon Secretary of State (website)	http://www.sos.state.or.us/
OREGON REVISED STATUTES	

Oregon State Legislature (website)	http://www.leg.state.or.us/ors/home.htm
INTERSTATE TRANSPORT	
EPA Memorandum from Gina McCarthy RE: Next Steps for Pending Redesignation Requests and State Implementation Plan Actions Affected by the Recent Court Decision Vacating the 2011 Cross-State Air Pollution Rule (November 19, 2012)	http://www.epa.gov/airtransport/CSAPR/pdfs/CSAPR_Memo_to_Regions.pdf
DEQ DOCUMENTS	
2011 Air Quality Annual Report and Data Summaries (DEQ)	http://www.deq.state.or.us/aq/forms/annrpt.htm
2013 Oregon Annual Ambient Air Monitoring Network Plan (DEQ)	http://www.deq.state.or.us/aq/forms/2013AQMonNetPlan.pdf
Intergovernmental Agreement between DEQ and LRAPA (DEQ Agreement # 003-12)	Document available upon request from DEQ Headquarters 811 SW 6 th Ave. Portland, OR 97204
TRAACS database query for small and large businesses performed June 07, 2013.	Document available upon request from DEQ Headquarters 811 SW 6 th Ave. Portland, OR 97204
TRAACS database query for fiscal impacts on government agencies performed June 25, 2013.	Document available upon request from DEQ Headquarters 811 SW 6 th Ave. Portland, OR 97204

Fee Analysis

This rulemaking does not involve fees.

Statement of fiscal and economic impact

ORS 183.335 (2)(b)(E)

Fiscal and Economic Impact

This proposal would have a fiscal impact on DEQ to the extent that resources are necessary to implement the new NO₂, SO₂, and lead NAAQS. DEQ's current budget includes resources to implement the NAAQS monitoring program as well as conduct planning, technical analysis and monitoring, rulemaking, and community outreach activities as needed if compliance problems with federal NAAQS are discovered in the future. States are routinely required to incorporate federal revisions to the NAAQS into their rules and subsequently revise their State Implementation Plans to address related infrastructure elements. The Clean Air Act requires EPA to revise the NAAQS for a criteria pollutant when new information is available to suggest a more protective standard is necessary to protect public health and welfare. In addition, the proposed amendment to the Prevention of Significant Deterioration requirements (adoption of 1-hour SILs for NO₂ and SO₂) may have a fiscal impact on new or expanding major industrial sources by requiring additional modeling analysis and possibly emission controls depending on the circumstances of the specific case.

Statement of Cost of Compliance

Upon adoption of the primary 1-hour NAAQS for NO₂ and SO₂ into Oregon Administrative Rule, DEQ will be required to include the 1-hour NO₂ and SO₂ standards in the modeling protocols for air quality analyses under the Plant Site Emission Limit and Prevention of Significant Deterioration programs. Currently, modeling to meet the primary 1-hour NO₂ and SO₂ standards is requested of sources by DEQ when deemed necessary. Permitted industrial sources affected by the proposed rule amendments may incur additional costs associated with modeling for purposes of Prevention of Significant Deterioration determinations prior to construction of a new air pollution source, or as a result of modifying an existing facility. New facilities and existing facilities that undergo modifications may need to hire an environmental consulting firm to develop computer simulation modeling to demonstrate compliance with the new primary 1-hour NAAQS for NO₂ and SO₂.

The addition of the 1-hr NO₂ and SO₂ NAAQS may increase the cost of modeling analyses for sources that emit these pollutants. Currently, these analyses are conducted on an as-requested basis. The modeling results could potentially require a source to add emission controls to meet the new 1-hr NAAQS. The costs associated with modeling analyses and any additional controls triggered by compliance with the 1-hr NO₂ and SO₂ NAAQS are dependent on the source being analyzed and will need to be determined on a case-by-case basis. If a source can demonstrate that the planned modification will result in an emissions increase that is less than the Significant Emission Rate (SER), no additional modeling is required. For sources with modifications that

result in emissions increases above the SER, additional air quality modeling is required. Some sources will be able to conduct modeling efforts internally, while others may need to contract for those services. Cost estimates for PSD modeling could range from a few thousand dollars in order to quantify emissions to over \$100,000 for more extensive modeling efforts if emissions rates are expected to exceed the facility's SER.

Because the NAAQS are federal requirements under the Clean Air Act, DEQ is required to adopt and implement these standards in Oregon. If DEQ did not adopt the NAAQS and related 1-hour Significant Impact Levels, EPA would be required to enforce these standards in Oregon, resulting in the same compliance costs borne by affected sources under the proposed amendments to state rules.

Table 3 quantifies the number of small and large businesses that emit SO₂, NO₂ or Pb as required by [ORS 183.336](#). The information provided in this table is an estimate based on available 2011 data. The distinction between small and large businesses is made at the parent company level and not at the individual facility level here in Oregon. Some facilities may have 50 or fewer employees but are owned by a company that as a whole employs more than 50 staff.

TABLE 3: Number of small and large businesses affected

Permit Type	Number of Small Businesses	Number of Large Businesses	Unknown Number of Employees	Total Number of Facilities Per Permit Type
	Under 50 Employees	Over 50 Employees		
Air Contaminant Discharge Permit	337	501	1*	839
Title V Operating Permit	10	91	0	101
Total Per Size:	347	592	1	940
*Business not yet in operation as of June 7, 2013				
Resource: DEQ TRAACS Database				

It is important to note that this proposal has the potential to affect large and small businesses that emit NO₂, SO₂ and Pb similarly. This is because the size of a business may not correlate well with the emission rates associated with its activities. Emission rates are what trigger additional costs associated with PSD modeling, rather than the number of employees a business has on staff. For existing permitted industrial sources (large and small), air quality analysis modeling and other requirements are only triggered if that facility proposes to expand its operations in such a manner as to cause a significant increase of a criteria air pollutant.

Impact on large businesses (all businesses that are not small businesses below)

Major new or modified sources such as natural gas electrical generating facilities and data storage and processing server farm centers with multiple back-up diesel generators may need to conduct a PSD analysis to determine whether they exceed the new 1-hour primary NO₂ and SO₂ standards, and under some circumstances may need to purchase monitoring equipment necessary

to demonstrate compliance with the NAAQS. Existing facilities undergoing PSD that are currently subject to NO₂ or SO₂ monitoring requirements may be able to use their existing monitoring equipment to demonstrate compliance with any new air quality analysis modeling requirements. Monitoring costs associated with newly constructed sources are dependent on the applicable requirements associated with the facility design. DEQ will work with new sources to determine the monitoring needs of a proposed facility.

Impact on small businesses (those with 50 or fewer employees) [ORS 183.336](#)

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

New or modified small businesses with NO₂ or SO₂ emissions increases high enough to trigger PSD analysis would be required to demonstrate compliance with the standards and/or install controls. See Table 3 for an estimate of the number of small businesses that generate NO₂, SO₂ or Pb emissions.

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

New or existing expanding permitted facilities will likely need to hire a consultant to conduct PSD analysis for the new primary 1-hour NO₂ and SO₂ NAAQS.

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

Equipment requirements for small businesses to comply with the new NAAQS would be case specific and cannot be determined at this time.

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

DEQ did not involve small businesses in the development of this rulemaking. The proposed rule amendments are required in order to align state rules with federal Clean Air Act requirements and provide DEQ with the necessary authority to implement the NO₂, SO₂ and Pb NAAQS in Oregon. As such, there was no policy choice to be made which would necessitate input from an advisory committee.

Impacts on general public

This proposal includes amendments to Oregon Administrative Rules to adopt new, federally-required primary 1-hour National Ambient Air Quality Standards and corresponding 1-hour Significant Impact Levels for nitrogen dioxide and sulfur dioxide, which EPA promulgated as more protective of public health and welfare than the existing standards for these pollutants. Although the positive impacts to public health have not been monetarily quantified, it is generally expected that because the primary 1-hr NO₂ and SO₂ NAAQS measure area-wide ambient air concentrations using shorter averaging times, adopting these standards will result in an increased level of protection of public health and welfare. Once adopted, should the 1-hour standards be exceeded in the future (as determined by DEQ ambient air quality monitoring), DEQ will have the capacity to implement actions to reduce ambient air concentrations of these

pollutants to levels below the 1-hour standards, through attainment planning efforts and other reduction strategies.

Impact on DEQ [ORS 183.335](#)

Monitoring – NO₂

Adoption of the primary 1-hr NO₂ NAAQS will necessitate near-roadway (freeway) monitoring to meet federal monitoring requirements. DEQ has acquired new monitoring equipment to measure near-roadway levels of NO₂ to determine compliance with the primary 1-hour standard in 2014. Monitors used for measuring ambient levels of NO₂ against the 1-hour standard range on average from \$6,000-\$13,000. EPA is providing funding to install the roadway site and purchase monitoring equipment. ODEQ will monitor for NO₂ at this site using funds reallocated from the SE Lafayette monitor, as approved by the EPA in the 2012 monitoring network plan.

Monitoring – SO₂

EPA is in the process of developing national guidance for modeling and monitoring of SO₂ for comparison against the primary 1-hour SO₂ NAAQS, and DEQ will need to re-visit Oregon's compliance status once EPA's requirements are finalized. Pending final EPA national guidance or rule, DEQ may need to purchase monitoring equipment to measure ambient air concentrations of SO₂ to determine compliance with the 1-hour SO₂ NAAQS.

Monitoring - Pb

Historically, DEQ's air monitoring program has been focused on measuring ambient lead levels near industrial sources. To date all results show levels well below the NAAQS. DEQ is currently monitoring for lead in North Portland and the Hillsboro elementary school as part of the toxics monitoring program. Ambient lead levels near small airports is an emerging issue and states are awaiting the conclusion of new EPA monitoring research and guidance in 2014 to explore this area further.

Modeling for compliance with 1-hour NO₂ and SO₂ NAAQS

As a result of adopting the new 1-hour primary standard for NO₂ and SO₂, DEQ may be required to conduct a review of modeling submittals for sources that are required to undergo PSD analysis. It is unknown at this time the number of sources that may require a review of PSD modeling submittals by DEQ triggered by the 1-hour primary standards.

Future Rulemaking for final EPA SILs

If approved by the EQC, this proposal will adopt interim Significant Impact Levels (SILs) into Oregon rule for the primary 1-hour NO₂ and SO₂ standards, as provided in current EPA Guidance. When final SILs have been promulgated by EPA, DEQ will need to conduct a future rulemaking to align DEQ rules with the final federal 1-hour Significant Impact Levels.

As proposed, this rulemaking will retain the annual and 24-hour SO₂ ambient air quality standards currently in Oregon Administrative Rules until one year after EPA develops sulfur dioxide area designations for Oregon. At that point, DEQ will repeal the existing annual and 24-hour SO₂ ambient air quality standards, leaving the primary 1-hour and secondary 3-hour standards for SO₂ in Oregon rule.

Impact on other government entities other than DEQ

DEQ issues permits to state, federal and local government agencies in Oregon that engage in activities which emit regulated air pollutants in quantities for which air quality permits are required. Listed below are examples of local and state agencies that may be impacted by adoption of the proposed rule amendments.

- a. Local governments: The proposed rule amendments could have implications for Metro’s regional transportation planning efforts as they pertain to the 1-hour NO₂ NAAQS with respect to near-roadway vehicle exhaust. DEQ will begin air quality monitoring near heavily-used roadways in the Portland area in 2014. If the NO₂ NAAQS is violated as a result of this monitoring, DEQ will be required to develop the necessary strategies and an attainment plan to correct the violation. If such a plan were needed, it is likely that Metro would be required to demonstrate that future transportation system plans do not jeopardize compliance with the NAAQS.
- b. State agencies: State government agencies engaged in activities which emit NO₂ or SO₂ in quantities that may contribute to ambient concentrations above the primary 1-hour NAAQS for these pollutants could be required to conduct PSD modeling and/or source monitoring to demonstrate compliance with the standards when constructing a new source or expanding an existing permitted source. Such activities include but are not limited to the operation of biomass, oil and natural gas boilers; back-up generators; or concrete, rock and asphalt crushers.

Documents relied on for fiscal and economic impact

Document title	Document location
TRAACS database query for small and large businesses performed June 07, 2013.	Document available upon request from: DEQ Headquarters 811 SW 6 th Ave. Portland, OR 97204
TRAACS database query for fiscal impacts on government agencies performed June 25, 2013.	Document available upon request from: DEQ Headquarters 811 SW 6 th Ave. Portland, OR 97204

Advisory committee

DEQ did not appoint an advisory committee for the proposed permanent rule amendments. This rulemaking proposal is necessary to align Oregon Administrative Rules with federally revised National Ambient Air Quality Standards under the Clean Air Act. The proposed changes are required to demonstrate that Oregon DEQ has the appropriate rules, programs and agreements in place to implement the Clean Air Act. As such, there was no policy choice to be made which would necessitate input from an advisory committee.

Housing cost

The proposed PSD requirements for NO₂, SO₂ or lead are required by the Clean Air Act and must be adopted by Oregon. To comply with ORS 183.534, DEQ has determined that the federal PSD requirements adopted by this rulemaking for new or expanding industrial sources of NO₂, SO₂ or lead may have a negative impact on the cost of development of a 6,000 square foot parcel

and the construction of a 1,200 square foot detached single-family dwelling on that parcel. The negative impact could occur if the cost of air modeling analysis or subsequent monitoring or emission controls are passed through by permit holders providing products and services for such development and construction. DEQ cannot quantify possible impacts at this time because the available information does not indicate whether sources subject to these new PSD requirements would pass on costs to consumers and any such estimate would be speculative.

Federal relationship

"It is the policy of this state that agencies shall seek to retain and promote the unique identity of Oregon by considering local conditions when an agency adopts policies and rules. However, since there are many federal laws and regulations that apply to activities that are also regulated by the state, it is also the policy of this state that agencies attempt to adopt rules that correspond with equivalent federal laws and rules..."

Relationship to federal requirements

DEQ determined as required under [ORS 468A.327\(1\)](#) and [OAR 340-011-0029\(1\)\(a\)](#) that this rule proposal does not impose requirements different from or in addition to federal requirements. Although there are some minor language differences, the proposed rules are equal to federal requirements because there are no substantive differences between the proposed rule amendments and applicable federal requirements.

The proposed rules incorporate the following federal regulations into Oregon rules:

- 40 CFR Section 50.4, National primary ambient air quality standards for sulfur oxides (sulfur dioxide).
- 40 CFR Section 50.11, National primary and secondary ambient air quality standards for oxides of nitrogen (with nitrogen dioxide as the indicator).
- 40 CFR Section 50.16 National primary and secondary ambient air quality standards for lead.
- 40 CFR Section 50.17 National primary ambient air quality standards for sulfur oxides (sulfur dioxide).

The proposed rules incorporate the federal regulations above with the following modifications to the federal rule language:

- The units of the NO₂ and SO₂ primary 1-hour standards have been converted from parts per billion ("ppb") to parts per million ("ppm") for consistency with the ambient air quality standards for other criteria pollutants found in Oregon Administrative Rule chapter 340, division 202.
- The federal rule language in 40 CFR incorporated into this rule included internal references to other parts of the Code of Federal Regulations. In places where this occurred, the rule amendments proposed herein provide external references to the CFR, as appropriate. No substantive changes to the federal requirements were made.

What alternatives did DEQ consider if any?

DEQ must adopt the proposed rule amendments to enable DEQ's implementation of the NAAQS for NO₂, SO₂ and Lead and to allow the EPA to approve the proposed amendments as revisions to the Oregon SIP. Because the proposed rule amendments are necessary to update infrastructure elements of the Oregon SIP to incorporate the revised NAAQS for NO₂, SO₂ and Pb in order to comply with the requirements of the Clean Air Act, DEQ has not considered other options for this proposal.

Land use

“It is the Commission's policy to coordinate the Department's programs, rules and actions that affect land use with local acknowledged plans to the fullest degree possible.”

ORS 197.180, OAR 660-030

Land-use considerations

To determine whether the proposed rules involve programs or actions that are considered a *land-use action*, DEQ considered:

- Statewide planning goals for specific references. Section III, subsection 2 of the DEQ State Agency Coordination Program document identifies the following statewide goal relating to DEQ's authority:

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

- [OAR 340-018-0030](#) for EQC rules on land-use coordination. Division 18 requires DEQ to determine whether proposed rules will significantly affect land use. If yes, how will DEQ:
 - Comply with statewide land-use goals, and
 - Ensure compatibility with acknowledged comprehensive plans, which DEQ most commonly achieves by requiring a [Land Use Compatibility Statement](#).
- DEQ's mandate to protect public health and safety and the environment.
- Whether DEQ is the primary authority that is responsible for land-use programs or actions in the proposed rules.
- Present or future land uses identified in acknowledged comprehensive plans.

Determination

DEQ determined that the proposed rules listed under the Chapter 340 Action section above **do not affect** existing rules, programs or activities that are considered land-use programs and actions in OAR 340-018-0030 or in the DEQ State Agency Coordination Program.

Stakeholder and public involvement

Advisory committee

DEQ did not convene an advisory committee. This rulemaking proposal makes necessary amendments to Oregon Administrative Rules which are part of the Oregon Clean Air Act State Implementation Plan. The proposed changes correspond with revisions to the NAAQS for nitrogen dioxide, sulfur dioxide and lead, and are required by the Clean Air Act to provide DEQ the authority to implement the current NAAQS for these pollutants.

EQC prior involvement

DEQ shares general rulemaking information with EQC through the annual DEQ Rulemaking Plan review and monthly status report. DEQ did not present additional information specific to this proposed rule revision beyond the annual rulemaking plan and the monthly rulemaking report.

Public notice

The August 2013 [*Oregon Bulletin*](#) will publish the Notice of Proposed Rulemaking with Hearing DEQ also:

- Posted notice on DEQ's webpage <http://www.deq.state.or.us/regulations/proposedrules.htm> on July 15, 2013.
- E-mailed notice on July 15, 2013 to:
 - Approximately 6,300 interested parties through GovDelivery.
 - 266 stakeholders through GovDelivery using DEQ's TRAACS TV and Standard ACDP database query.
 - Two additional interested parties not subscribed to GovDelivery.
 - The following key legislators required under [ORS 183.335](#):
 - Senator Jackie Dingfelder, Chair, Senate Committee on the Environment and Natural Resources.
 - Representative Jules Bailey, Chair, House Energy and Environment Committee.
- Mailed the notice by U.S. Postal Service to 17 stakeholders using DEQ's TRAACS TV and Standard ACDP database query on July 15, 2013.
- Sent notice to EPA on July 1, 2013.
- Published notice in The Oregonian July 15, 2013

Public hearings

DEQ plans to hold one public hearing. The green box below below includes information about how to participate in the public hearing.

Before taking public comment and according to [Oregon Administrative Rule 137-001-0030](#), staff presenter will summarize the content of the notice given under [Oregon Revised Statute 183.335](#) and respond to any questions about the rulemaking.

DEQ will add the names, addresses and affiliations of all hearing attendees to the interested parties list for this rule if provided on a registration form or the attendee list. DEQ will consider all oral and written comments received at the hearings listed below before finalizing the proposed rules. All comments will be summarized and DEQ will respond to comments on the Environmental Quality Commission staff report.

Time and Date	6 p.m. on August 15, 2013
Address line 1	DEQ Headquarters
Address line 2	811 SW 6th Ave Floor 10 Room EQC B
City	Portland, OR 97204
Presiding officer	DEQ Staff
Staff presenter	Carrie Capp

Close of public comment period

The comment period will close on Monday, August 19, 2013 at 5:00 p.m.