

Oregon Department of Environmental Quality

**Oct. 16-17, 2013**

Oregon Environmental Quality Commission meeting

Rulemaking, Action item: #

**Updates to Oregon State Implementation Plan for lead, nitrogen dioxide and sulfur dioxide**

**National Ambient Air Quality Standards**

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| **DEQ recommendation to the EQC** |

**DEQ recommends that the Oregon Environmental Quality Commission:**

Adopt the proposed PERMANENT rules in Attachment A as part of chapter 340 of the Oregon Administrative Rules. Approve incorporating these rule amendments into the Oregon Clean Air Act State Implementation Plan under OAR 340-200-0040.

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| **Overview** |

DEQ must update its Clean Air Act State Implementation Plan to implement the current National Ambient Air Quality Standards for nitrogen dioxide, sulfur dioxide and lead under the Clean Air Act. The proposed rule amendments update infrastructure elements of Oregon’s State Implementation Plan to meet requirements for approval by the U.S. Environmental Protection Agency.

Short summary

The proposed rule amendments incorporate new and revised standards for nitrogen dioxide, sulfur dioxide and lead into Oregon Administrative Rule and adopt SAir Quality Impact Levels for NO2 and SO2 as necessary to meet Clean Air Act requirements and revise the Oregon State Implementation Plan 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 EQC, the actions proposed in this rulemaking will be incorporated into and made part of the Oregon State Implementation Plan.
* Amend OAR 340-200-0020 Table 1 to add one-hour Significant Air Quality Impact Levels for NO2 and SO2.
* Adopt OAR 340-202-0020 to add an applicability clause to Division 202
* Amend OAR 340-202-0070 to incorporate the primary one-hour National Ambient Air Quality Standard for sulfur dioxide, adopted by the EPA June 22, 2010, and effective Aug. 23, 2010.
* Amend OAR 340-202-0100to incorporate the primary one-hour National Ambient Air Quality Standard for nitrogen dioxide, adopted by EPA Feb. 9, 2010, and effective 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 Nov. 12, 2008, and effective Jan. 12, 2009.

In addition to the rule amendments outlined above, three “crosswalks” titled “Infrastructure State Implementation Plan 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 standards for NO2, SO2 and lead. They are included for EQC approval and submittal to EPA as documentation that the infrastructure elements of the Oregon State Implementation Plan meet the requirements of the Clean Air Act as they relate to the standards.

DEQ postponed submitting plan updates past EPA’s 2012-2013 timeframe until EPA guidance was available for reference. DEQ consulted with EPA Region 10, DEQ to develop this proposal. In order to streamline the submittal process, DEQ bundled the required rule amendments for all three pollutants into one package.

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 regulations are known as the State Implementation Plan.

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 National Ambient Air Quality Standards and
2. To identify the emissions control requirements the state will rely upon to attain or maintain the primary and secondary standards.

All states are required to submit State Implementation Plans with general infrastructure elements showing the state has the capacity to implement new or revised National Ambient Air Quality Standards. Infrastructure State Implementation Plan submittals must include the basic programrequirements for managing air quality required in Section 110(a)(2) of the Clean Air Act.

**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 State Implementation Plan 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 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 people with asthma, 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.

State Implementation Plans 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. These are known as criteria pollutants. The six current criteria pollutants are sulfur oxides, with sulfur dioxide as the indicator, particulate matter, oxides of nitrogen, with nitrogen dioxide as the indicator, lead, carbon monoxide and ozone. EPA has established National Ambient Air Quality Standards for these pollutants and has updated these standards over time. As the standards change, states must submit revisions to the infrastructure elements of their State Implementation Plans to reflect these changes.

EPA recently revised the nitrogen dioxide, sulfur dioxide and lead standards to protect the public from adverse health effects, as appropriate under CAA Section 109, by:

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

Main functions of a Clean Air Act State Implementation Plan   
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 standards for a criteria pollutant, EPA is required to identify or designate areas as meeting or not meeting the standard. Designations of attainment or nonattainment 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 standard, as specified in Clean Air Act section 110. These plans are often called infrastructure State Implementation Plans. *(see* CAA Section 110(a)(1), 42 USC § 7410(a)(1)*)*.
* Within three years of area designations, states are required to submit nonattainment area State Implementation Plans to EPA for any criteria pollutant for which the standard is not met. Each nonattainment area State Implementation Plan must outline the strategies and emissions control measures that show how the area will improve air quality and meet the standards. *(see* CAA Section 172, 42 USC § 7502.*)*

Table 1 displays EPA actions with regard to area designations for the revised nitrogen dioxide, sulfur dioxide and lead standards in Oregon:



Air quality monitoring

DEQ monitors ambient air quality 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 1 of each year. DEQ’s 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 nitrogen dioxide, sulfur dioxide and lead for comparison to the standards at a monitoring location in southeast Portland. DEQ published the results of the most recent monitoring data in June 2013. Table 2 summarizes the data for measurements of ambient air concentrations of nitrogen dioxide, sulfur dioxide and lead contained in the 2013 Oregon Annual Ambient Air Monitoring Network Plan:

 Infrastructure State Implementation Plan submittals

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

The proposed rule amendments would revise the existing National Ambient Air Quality Standards for nitrogen dioxide and sulfur dioxide under Oregon Administrative Rule chapter 340, division 202 to reflect the primary one-hour nitrogen dioxide and sulfur dioxide standards adopted by 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 sulfur dioxide standards. These state standards were adopted by 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 would retain the existing Oregon annual and 24-hour sulfur dioxide 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 sulfur dioxide national ambient air quality standards. Once the federal annual and 24-hour sulfur dioxide standards are repealed, DEQ will repeal the annual and 24-hour sulfur dioxide standards in OAR 340-202-0070. Once the annual and 24-hour sulfur dioxide standards are repealed in Oregon rule, the federal primary one-hour and secondary three-hour sulfur dioxidestandards will be retained in rule for implementation in Oregon.

Prevention of Significant Deterioration: Analysis for Industrial Permitting

Revisions to Table 1 of Oregon Administrative Rule chapter 340, division 200 are needed to adopt one-hour Significant Impact Levels for nitrogen dioxide and sulfur dioxidein Class II areas. Significant Impact Levels 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 one-hour nitrogen dioxide and sulfur dioxide Significant Impact Levels were determined based on federal guidance and are necessary to implement the one-hour primary standards in DEQ’s air quality permitting actions.

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 standard. The Oregon Environmental Quality Commission adopted the current standards for lead 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 State Implementation Plan. EPA approved the revisions for New Source Review, PM 2.5 and greenhouse gas permitting rule updates, Dec. 27, 2011; however, adoption of the lead standard did not meet federal requirements for an infrastructure State Implementation Plan 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 State Implementation Plan for lead.

Regulated parties

Parties affected by this proposal include newly constructed or expanding permitted industrial sources with nitrogen dioxide or sulfur dioxide emissions above the Significant Emission Rate, due to the proposed one-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 determination. Modeling is required when a source exceeds the Significant Emission Rate for a criteria pollutant. Examples of affected sources of sulfur dioxide may include 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 one-hour primary nitrogen dioxide standard, and may need to purchase monitoring equipment necessary to demonstrate compliance with the standards. 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.”

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| **Statement of need** |

What problem is DEQ trying to solve?

The federal Clean Air Act requires states to amend their administrative rules to adopt new or revised National Ambient Air Quality Standards and incorporate them into their state plans. To comply, DEQ is proposing rules that:

* Incorporate the one-hour National Ambient Air Quality Standards and corresponding interim Significant Impact Levels for nitrogen dioxide and sulfur dioxide into the Oregon State Implementation Plan.
* Revise the existing lead standard in OAR 340-200-0020 consistent with the wording of the federal lead standard in the Code of Federal Regulations.

Incorporating these changes into the Oregon State Implementation Plan will allow DEQ to submit the revised infrastructure State Implementation Plan to EPA for approval. Once approved, DEQ would have the authority to implement the current standards for nitrogen dioxide, sulfur dioxide and lead in Oregon, in compliance with the Clean Air Act.

How would the proposed rule solve the problem?

The proposed rule amendments would harmonize DEQ’s rules with the Clean Air Act requirements. If adopted, these proposed rule amendments will allow DEQ to submit the revised infrastructure requirements to the U.S. Environmental Protection Agency for approval as revisions to the Oregon State Implementation Plan.

How will DEQ know the problem has been solved?

DEQ will know the problem has been solved when the updated infrastructure elements of Oregon’s State Implementation Plan are approved by the EPA and published in the Federal Register.

Request for other options

Because the proposed rule amendments are requirements of the Clean Air Act, DEQ has not requested input for other options.

DEQ welcomed public comments on any aspect of this proposed rulemaking during the public comment period, and specifically requested public comment regarding the completeness of the crosswalks seen in Tables 4 through 6.

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| **Crosswalk submittals** |

**Infrastructure State Implementation Plan: Other documentation (Crosswalks)**

In addition to the rule amendments described above, DEQ is submitting three documents, Tables 4, 5 and 6, referred to as crosswalks, for EQC approval and submittal to EPA. A separate crosswalk is provided for each nitrogen dioxide, sulfur dioxide and lead with this rulemaking proposal, each addressing the required infrastructure State Implementation Plan elements of CAA Section 110(a)(2)(A) - 110(a)(2)(M).

The crosswalks were developed in consultation with EPA Region 10 and are included with this proposal. 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. The crosswalks are not considered part of the official record of Oregon’s State Implementation Plan and 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 State Implementation Plan submittals. DEQ has made an effort to include the relevant state rules and statutes in the crosswalks for ease of reference; however, 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.

The crosswalks are specific to the three standards, and DEQ may use them for other State Implementation Plan submittals if they are effective as supporting documentation for this proposal.

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| **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)](http://www.oregonlaws.org/ors/468A.327) and [OAR 340-011-0029(1)(a)](http://arcweb.sos.state.or.us/pages/rules/oars_300/oar_340/340_011.html), that this rule proposal does not impose requirements different from or in addition to federal requirements. The proposed rules are equal to federal requirements because there are no substantive differences between the proposed rule amendments and applicable federal requirements.

What alternatives did DEQ consider if any?

Because the proposed rule amendments are necessary to comply with the requirements of the Clean Air Act, DEQ has not considered other options for this proposal.

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| Rules affected, authorities, supporting documents |

Lead divisionProgram or activity

Air Quality Planning

Chapter 340 action

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

Adopt OAR 340-202-0020

Statutory authority

ORS chapters 468 and 468A

Statute implemented

ORS 468A

Documents relied on for rulemaking [ORS 183.335(2)(b)(C)](http://www.leg.state.or.us/ors/183.html)

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| **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 (nitrogen dioxide) 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 nitrogen dioxide NAAQS for the Prevention of Significant Deterioration Program (June 29, 2010) | <http://www.epa.gov/NSR/documents/20100629no2guidance.pdf> |
| EPA Memorandum RE: Additional Clarification Regarding Application of Appendix W Modeling Guidance for the 1-hour nitrogen dioxide National Ambient Air Quality Standards | <http://www.epa.gov/region7/air/nsr/nsrmemos/appwno2_2.pdf> |
| **Sulfur Dioxide NAAQS** |  |
| Sulfur Dioxide (sulfur dioxide) Primary National Ambient Air Quality Standards (EPA) | <http://www.epa.gov/ttnnaaqs/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/ttnnaaqs/standards/so2/fr/20100622.pdf> |
| Federal Register Volume 75, Number 119  (Tuesday, June 22, 2010)]  [Pages 35519-35603] | <http://www.gpo.gov/fdsys/pkg/FR-2010-06-22/html/2010-13947.htm> |
| 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 (sulfur dioxide). | Document available upon request from:  DEQ Headquarters  811 SW 6th Ave.  Portland, OR 97204 |
| EPA Memorandum RE: Guidance Concerning the Implementation of the 1-hour sulfur dioxide 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> |
| **State Implementation Plan Elements NAAQS** |  |
| Infrastructure State Implementation Plan Element Reports (EPA) | <http://www.epa.gov/airquality/urbanair/sipstatus/infrastructure.html> |
| State Implementation Plan – General Page (EPA) | <http://yosemite.epa.gov/r10/airpage.nsf/283d45bd5bb068e68825650f0064cdc2/b2ce4780021daa07882569de007ba77f?OpenDocument> |
| Status of State Implementation Plan 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=40:2.0.1.1.2.23.11.5.36&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 6th 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 6th 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 6th Ave.  Portland, OR 97204 |

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| **Statement of fiscal and economic impact** [**ORS 183.335 (2)(b)(E)**](http://www.leg.state.or.us/ors/183.html) |

**Fiscal and Economic Impact**

This proposal would have a fiscal impact on DEQ to the extent that resources are necessary to implement the new standards. DEQ’s current budget includes resources to implement the monitoring program as well as conduct planning, technical analysis, rulemaking, and community outreach activities as needed if compliance problems with federal standards are discovered in the future. In addition, the proposed amendment to the Prevention of Significant Deterioration requirements, adoption of one-hour Significant Impact Levels for nitrogen dioxide and sulfur dioxide, may have a fiscal impact on new or expanding major industrial sources that could be subject to additional modeling analysis and possibly emission controls.

**Statement of Cost of Compliance**

Upon adoption of the primary one-hour standards for nitrogen dioxide and sulfur dioxide into Oregon Administrative Rule, DEQ would be required to include the standards in the modeling protocols for air quality analyses under the Plant Site Emission Limit and Prevention of Significant Deterioration programs. Currently, DEQ does not request this modeling for all facilities. Permitted industrial sources affected by the proposed rule amendments may have additional costs associated with modeling. New facilities and existing facilities that undergo modifications may need computer simulation modeling to demonstrate compliance with the new primary one-hour standards for nitrogen dioxide and sulfur dioxide.

The addition of the one1-hour NO2 and SO2 NAAQS standards may increase the cost of modeling analyses and emission controls for sources that emit these pollutants.  If a source can demonstrate that the planned modification will result in an emissions increase that is less than the Significant Emission Rate, no additional modeling is required.For sources with modifications that result in emissions increases above that rate, 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 modeling could range from a few thousand dollars in order to quantify emissions to over $100,000 for more extensive modeling efforts.

DEQ is required to adopt and implement these standards in Oregon. If DEQ did not adopt the standards and related one-hour Significant Impact Levels, EPA would enforce these standards in Oregon, resulting in the same compliance costs.

Table 3 shows the number of small and large businesses that emit sulfur dioxide, nitrogen dioxide or lead as required by [ORS 183.336](http://www.leg.state.or.us/ors/183.html). 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 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.

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| **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 | | | | |

This proposal has the potential to affect large and small businesses that emit nitrogen dioxide, sulfur dioxide and lead similarly. This is because the size of a business may not correlate with the emission rates associated with its permitted activities. Small businesses with high emission rates would be subject to the same costs as large businesses with the same high emissions rates.

**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 Prevention of Significant Deterioration analysis to determine whether they exceed the new one-hour primary nitrogen dioxideand sulfur dioxide standards, and under some circumstances may need to purchase monitoring equipment necessary to demonstrate compliance with the standards. Existing facilities currently subject to nitrogen dioxide or sulfur dioxide monitoring requirements may be able to use 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**](http://www.leg.state.or.us/ors/183.html)

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| 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 nitrogen dioxide or sulfur dioxide 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 nitrogen dioxide, sulfur dioxide or lead 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 conduct Prevention of Significant Deterioration analysis for the new primary one-hour nitrogen dioxide and sulfur dioxide standards. |
| 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 standards 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 or an advisory committee to develop this rulemaking. Oregon must adopt these requirements to maintain its delegated authority from EPA. |

**Impacts on general public**

EPA developed the new standards to better protect public health and welfare. Oregonians will benefit from the revised standards, if approved. Although the positive impacts to public health have not been monetarily quantified, it is generally expected that because the primary one-hour nitrogen dioxide and sulfur dioxide standards 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, and with data from its monitoring program, DEQ will also have the capacity to implement actions to reduce ambient air concentrations of these pollutants to levels below the one-hour standards, through attainment planning efforts and other reduction strategies.

**Impact on DEQ** [**ORS 183.335**](http://www.leg.state.or.us/ors/183.html)

Monitoring – nitrogen dioxide

Adoption of the primary one-hour nitrogen dioxide National Ambient Air Quality Standard will necessitate near-roadway monitoring to meet federal monitoring requirements. DEQ has acquired new monitoring equipment to measure near-roadway levels of nitrogen dioxide to determine compliance with the primary one-hour standard in 2014. Monitors used for measuring ambient levels of nitrogen dioxide against the one-hour standard range on average from $6,000 to $13,000. EPA is providing funding to install the roadway site and purchase monitoring equipment. DEQ will monitor for nitrogen dioxide at this site using funds reallocated from the SE Lafayette monitor, as approved by the EPA in the 2012 monitoring network plan.

Monitoring – sulfur dioxide

EPA is developing national guidance for modeling and monitoring of sulfur dioxide for comparison against the primary one-hour sulfur dioxide National Ambient Air Quality Standard 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 sulfur dioxide to determine compliance with the standard.

Monitoring - Lead

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 standard. 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 one-hour nitrogen dioxide and sulfur dioxide standards

As a result of adopting the new one-hour primary standard for nitrogen dioxide and sulfur dioxide, DEQ maybe required to review modeling submittals for sources that are required to undergo Prevention of Significant Deterioration. At this time, DEQ does not know the total number of sources potentially affected by this proposed change.

Future rulemaking for final EPA Significant Impact Levels

If approved by EQC, this proposal would adopt interim Significant Impact Levels into Oregon rule for the primary one-hour nitrogen dioxide and sulfur dioxide standards, as provided in current EPA guidance. DEQ will conduct a future rulemaking to align DEQ rules with the final federal one-hour Significant Impact Levels.

As proposed, this rulemaking will retain the annual and 24-hour sulfur dioxide 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 would repeal the existing annual and 24-hour sulfur dioxide ambient air quality standards, leaving the primary one-hour and secondary three-hour standards for sulfur dioxide in Oregon rule.

**Impact on other government entities other than DEQ**

DEQ issues permits to state, federal and local government agencies in Oregon.

1. Local governments: The proposed rule amendments could have implications for Metro’s regional transportation planning efforts as they pertain to the one-hour nitrogen dioxide standards for near-roadway vehicle exhaust**.** DEQ will begin air quality monitoring near heavily-used roadways in the Portland area in 2014. DEQ would be required to develop the necessary strategies and an attainment plan to correct any violations of the nitrogen dioxidestandard. If such as plan were needed, it is likely that Metro would be required to demonstrate that future transportation system plans do not jeopardize compliance with the standard.
2. State agencies: State government agencies engaged in activities which emit nitrogen dioxide or sulfur dioxide in quantities that may contribute to ambient concentrations above the primary one-hour standards could be required to conduct monitoring to demonstrate compliance with the standards when constructing a new source or expanding an existing permitted source. These activities include 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**

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| **Document title** | **Document location** |
| TRAACS database query for small and large businesses performed June 7, 2013. | Document available upon request from:  DEQ headquarters  811 SW 6th Ave.  Portland, Oregon 97204 |
| TRAACS database query for fiscal impacts on government agencies performed June 25, 2013. | Document available upon request from:  DEQ headquarters  811 SW 6th Ave.  Portland, Oregon 97204 |

**Housing cost**

DEQ has determined that the federal requirements adopted by this rulemaking for new or expanding industrial sources of nitrogen dioxide, sulfur dioxide 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 permit holders pass on the cost of air modeling analysis or subsequent monitoring or emission controls to consumers. DEQ cannot quantify possible impacts at this time because the available information does not indicate whether sources subject to these new requirements would pass on costs to consumers and any such estimate would be speculative.

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| 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 federal revisions.

EQC prior involvement

DEQ shared this information with EQC through the annual DEQ Rulemaking Plan review and monthly status report.

Public notice

The August 2013[*Oregon Bulletin*](http://arcweb.sos.state.or.us/pages/rules/bulletin/past.html) published the Notice of Proposed Rulemaking with Hearing DEQ also:

* Posted notice on DEQ’s webpage [http://www.deq.state.or.us/regulations/proposedrules.htm](http://www.deq.state.or.us/regulations/proposedrules.htm%20)  July 15, 2013.
* E-mailed notice 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](http://www.leg.state.or.us/ors/183.html):
  + 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 July 1, 2013.
* Published notice in *The Oregonian* July 15, 2013

Public hearings and comment

DEQ held one public hearing for this rulemaking proposal. The comment period closed Aug. 19, 2013, at 5 p.m. DEQ received four public comments. The summary of comments and DEQ responses section below addresses each public comment. The commenter section below lists all people who provided comments on this proposal.

Hearing

Location DEQ headquarters

811 SW 6th Ave., Floor 10, Room EQC B

Portland, Oregon 97204

Date Aug. 15, 2013

Time Convened 6:02 p.m. Closed 6:32 p.m.

Presiding Officer Aida Biberic, Technical and Policy Analyst

Three people attended the hearing, one person provided oral comments and no one submitted written comments. At 6:05 p.m. before taking comments, the presiding officer summarized procedures for the hearing including notification that DEQ was recording the hearing. The presiding officer asked those in attendance who wanted to present verbal comments to complete, sign and submit a registration form.

Carrie Capp, DEQ Air Quality planner, summarized the content of the notice given under [Oregon Revised Statute 183.335](http://www.leg.state.or.us/ors/183.html). This summary, which is required by [Oregon Administrative Rule 137-001-0030](http://arcweb.sos.state.or.us/pages/rules/oars_100/oar_137/137_001.html), included staff responses to questions about the rulemaking.

DEQ added all names, addresses and affiliations provided on the registration form and attendee list to DEQ’s interested parties list for this rule and to the commenter section of this staff report. The commenter list includes a cross reference to the hearing number. DEQ added all written and oral comments presented at each hearing to the summary of comments and agency responses section of this staff report.

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Close of public comment period

The comment period closed Aug. 19, 2013, at 5 p.m.

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| Summary of comments and DEQ responses |

The following table summarizes comments received and provides DEQ’s response. Original comments are on file with DEQ.

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| **Comment Category** | **Comment** | **DEQ Response to Comment** |
| In support of proposal. | 1. AOI supports incorporation of the nitrogen dioxide, sulfide dioxide and lead ambient air quality standards, as well as the new, one-hour Significant Air Quality Impact Levels for nitrogen dioxide and sulfur dioxide. | 1. DEQ acknowledges these comments in support of the proposed rule changes. |
| In support of proposal.  Wait for clear EPA guidance.  In support of proposal.  Request for status updates. | 1. NWPPA supports DEQ’s proposed changes to Oregon Administrative Rules Chapter 340 division numbers 200 and 202 for implementation of federal NAAQS for nitrogen dioxide, sulfur dioxide and lead.   NWPPA remains highly interested in continuing implementation activities for the sulfur dioxide standards and encourages DEQ to wait for clear nationwide guidance from EPA before commencing with implementation of the program. Once guidance is developed, NWPPA requests the opportunity to discuss DEQ’s strategy for implementing the standard.  NWPPA believes that DEQ has agency personnel, administrative and support capacity, stable funding, statutory authority, rule writing ability and comprehensive administrative rules in place providing a complete regulatory infrastructure to implement changes to federal National Ambient Air Quality Standards.  NWPPA strongly encourages the EQC and the EPA to promptly approve the proposed administrative rule changes for Oregon’s State Implementation Plan for nitrogen dioxide, sulfur dioxide and lead NAAQS. Given our role in Oregon, NWPPA requests that it be notified of developments in DEQ’s efforts to obtain approval of these rules into the State Implementation Plan. | 1. DEQ acknowledges these comments in support of the proposed rule changes.   In July 2013, EPA completed its initial round of area designations for the one-hour sulfur dioxide standards in areas of the country where monitors are located and the data collected indicates ambient air concentrations of sulfur dioxide are in violation of the standard. Because there are relatively few one-hour sulfur dioxide monitors in the existing monitoring network, the initial round of area designations did not include Oregon. EPA intends to propose the sulfur dioxide Data Requirements Rule in 2014, and will solicit comments on how to move forward with nationwide areas designations as part of that rulemaking. DEQ will review the current status of EPA’s rule and guidance as it proceeds with implementation of this rule and welcomes input from NWPPA on issues associated with both sulfur dioxide modeling and monitoring.  DEQ acknowledges the comment asserting the agency has adequate resources to implement the revised standards for nitrogen dioxide, sulfur dioxide and lead.  EPA plans to complete one-hour sulfur dioxide area designations in the remainder of the country, including Oregon, in 2017. Between 2014 and 2017, DEQ anticipates developing a monitoring plan and consulting with sources to review permit applications in consideration of the one-hoursulfur dioxide standard. For more information on past and planned EPA actions, please see <http://www.epa.gov/airquality/sulfurdioxide/implement.html>  The status of approval actions related to Infrastructure State Implementation Plan submittals is included in the EPA’s public participation process. Outcomes of completeness and approval reviews by EPA are published in the Federal Register and all of EPA’s actions are posted on regulations.gov, where interested parties can sign up for email alerts and submit comments electronically. DEQ encourages NWPPA to visit [www.regulations.gov](http://www.regulations.gov) for periodic federal approval updates on this infrastructure State Implementation Plan submittal |
| Request to add applicability language for delegating authority to LRAPA. | 1. LRAPA believes it would be beneficial for EPA, DEQ and LRAPA if DEQ were to include language which would provide LRAPA authority by reference for the provisions of this rulemaking:   LRAPA suggests such a provision be added as a new section to division 202 (e.g., OAR 340-202-0020).  For purposes of the division 200 changes, the provision could replace the existing language in OAR 340-200-0010(3), or added specifically to the OAR 340-200-0020 Table 1; LRAPA prefers the former. | 3. DEQ acknowledges this comment and proposes to amend Oregon Administrative Rule chapter 340, division 202 to adopt an applicability section (OAR 340-202-0020).  DEQ believes that including such a provision in Division 200 would be beyond the scope of this rulemaking because Division 200 covers pollutants other than sulfur dioxide, nitrogen dioxide and lead, and is not proposing to add similar applicability language to Division 200 at this time. DEQ will work with LRAPA to determine the best path forward to accomplishing the objective of streamlining rulemaking by authorizing LRAPA to implement the commission’s rules directly in Lane County. |
| Opposes adoption of one-hour nitrogen dioxide and sulfur dioxide Significant Air Quality Impact Levels | 1. Oregon’s proposal, like EPA’s Significant Impact Level rule, is contrary to the Clean Air Act. Oregon must revise its rulemaking to remove the Significant Air Quality Impact Levels from the proposal, and re-propose it’s rulemaking to address the issues in these comments.   The 1-hour nitrogen dioxide and sulfur dioxide Significant Air Quality Impact Levels proposed for adoption under OAR 340-200-0020, Table 1, are exemptions from compliance with Section 165 of the Clean Air Act, 42 U.S.,C. §7475, even where a proposed source or modification would cause or contribute to a violation of the NAAQS.  The United State Court of Appeals for the District of Columbia held that the Significant Impact Levels promulgated by the U.S. EPA were illegal in *Sierra Club v. E.P.A*., 705 F.3d 458 (D.C. Cir. 2013). The Significant Air Quality Impact Levels proposed by DEQ in this rulemaking are similar in effect to the EPA rules found infirm by the court.  According to the Court, the only legal SIL is one that does “not allow the construction or modification of a source to evade the requirements of the Act...” *id*. at 464. The court made clear that regulations that “allow permitting authorities to automatically exempt sources with projected impacts below the SILs from having to make the demonstration required under 42 U.S.C. § 7475(a)(3) [the cumulative air quality analysis], even in situations where the demonstration may require a more comprehensive air quality analysis,” are illegal under the Clean Air Act. *Id.* at 465.  Oregon’s proposal includes Significant Air Quality Impact Levels that allow sources with impacts less than the Significant Air Quality Impact Levels to avoid making the demonstration required by 42 U.S.C. §7475(a)(3), regardless of other information about the source or area. *See* OAR 340-200-0020(132) The Clean Air Act requires that any major emitting facility that proposed to construct or modify in an area that is designated as in attainment for the NAAQS must demonstrate that it will not cause or contribute to air pollution in excess of the NAAQS.  Oregon’s regulation would allow unlimited numbers of sources whose impacts are less than the Significant Air Quality Impact Levels to cumulatively cause or contribute to ambient concentrations higher than the NAAQS.  Additionally, Oregon’s regulation would allow new or modified sources in upwind locations to contribute to existing violations in downwind nonattainment areas, since the upwind sources in Oregon would not be required to demonstrate that they would not cause or contribute to a violation of the NAAQS or increment. | 4. DEQ acknowledges these comments and recognizes that the court decision affects how Significant Impact Levels may be used.  However, DEQ cannot correct the issue in this rulemaking because it only proposes the levels for one-hour nitrogen dioxide and sulfur dioxide SILs and does not specify how they are to be used. An amendment regarding how SILs are implemented, which would affect other pollutants in addition to nitrogen dioxide and sulfur dioxide, would be beyond the scope of this rulemaking. DEQ consulted with EPA Region 10 and plans to draft revisions to Oregon Administrative Rules to address the court decision referenced in the comment.  Specifically, DEQ plans to address the court decision in the upcoming Permitting Program Updates rulemaking proposal scheduled to be noticed and out for public comment Oct. 1, 2013, with EQC consideration scheduled for March 2014. |

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| Commenters |

Comments received by close of public comment period

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

****Comments received after close of public comment period

No comments were submitted after close of the public comment period for this proposed rulemaking.

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| Implementation |

Notification

If approved, the proposed rules would become effective on filing with the Secretary of State’s office before the end of October 2013. DEQ would notify affected parties by posting the information on the agency rulemaking website and direct e-mail through distribution to the rulemaking email list for the proposal to interested parties.

DEQ has notified all potentially affected sources.

Compliance and enforcement

* Affected parties – Impacts from industrial and commercial facilities will be subject to the proposed standards. Currently, DEQ rules do not prohibit a source from causing or contributing to a violation of the standards. However, DEQ will be proposing rule amendments to the air quality permitting program in October 2013 that will address the use of Significant Air Quality Impact Levels in demonstrating compliance with the standards by a single source. No source will be permitted to cause a violation and any source which violates a National Ambient Air Quality Standard will be subject to enforcement.
* DEQ will work with affected sources to review modeling outputs and develop permit conditions to ensure the standards are met. DEQ will develop air quality monitoring plans for determining compliance with the newly adopted standards.

Measuring, sampling, monitoring and reporting

* DEQ will require affected industrial and commercial sources in to model and monitor lead, nitrogen dioxide and sulfur dioxide emissions.
* Air quality monitoring staff will review and compile monitoring data for DEQ’s annual air quality monitoring report.

Systems

* Website – If adopted, DEQ would update the agency website with the new standards.
* Database – No impact.
* Invoicing - No impact

Training

* None anticipated.

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| Five-year review |

Requirement ORS 183.405

The state Administrative Procedures Act requires DEQ to review **new** rules within five years of the date the EQC adopts the proposed rules. Though the review will align with any changes to the law in the intervening years, DEQ based its analysis on current law.

Exemption

The following exemptions apply to some of the proposed rules:

* All but one part of the proposal would amend the rules, not create new rules

Five-year rule review required

No later than Oct. 16, 2018, DEQ will review the newly-adopted applicability section under Division 202 as required under ORS 183.405 (1) 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.

DEQ will use available information to comply with the review requirement, as allowed under ORS 183.450 (2).